

NORMAN M. KLEIN

Revised & Expanded  
Edition

*The  
Vatican  
to  
Vegas*  
*A History of Special Effects*

[transcript] Architecture

Norman M. Klein  
The Vatican to Vegas

**Architecture** | Volume 87

**Norman M. Klein**, born in 1945, is professor in the School of Critical Studies at the California Institute of the Arts, and the author, for instance, of “The History of Forgetting: Los Angeles and the Erasure of Memory” (1997/2008) and “The Vatican to Vegas: The History of Special Effects” (2004), the multimedia historical novel, “The Imaginary 20th Century” (2016), “Freud in Coney Island and Other Tales” (2006). A critic, urban and media historian, and novelist, he has written extensively on the culture and politics of Los Angeles, on cinema, and on architecture.

Norman M. Klein

# **The Vatican to Vegas**

The History of Special Effects

Revised and expanded new edition

**[transcript]**

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# Introduction



## The Vatican to Vegas

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For decades, the phrase Loose Slots was repeated on signs along the Las Vegas Strip, a pun on getting “lucky” (slots as in “sluts”), to go with the flyers reminding visitors that “it’s” legal here. According to legend, back in the fifties, the number of prostitutes within each casino used to be assigned, as if by odds makers who also knew the precise ratio of flesh to gambling.<sup>1</sup>

The script, then as now, appeared to be calculated down to the last dime. Don’t expect to win, but expect a good ride. Visitors gambled away, on average, over three hundred dollars per capita every weekend.<sup>2</sup> Most accepted that without argument. The potential to break loose was always there, even though the odds favored the house. You paid for the experience.

Visitors have been paying for centuries, responding to tricks as venerable as prostitution itself. The more lavish the special effect, the more it followed a script about power, about giving in to power, about pretending to cheat authority. Special effects are a form of collusion, like a doctor allowing the patient to fake the surgery. They are “complicit” childish play, “scripted” like Tom and Huck playing Indians.

So we begin with a suggestive atmosphere, perhaps a bar, properly assigned, inside a sixties Vegas casino. A seductive stranger is having a drink next to you. The mood is a trifle naughty, but utterly safe. You feel secure enough to be a cheerful accomplice, to play against the house, even stand in line to try your luck. Inside spaces like these, carefully scripted to maximize profit, you can choose an additional reward as well. You can receive a visual shock or surprise, a special effect; and not a cheap one at that, something lavish.

This is a “history” of how scripted spaces have made these ticklish, immersive effects possible. I concentrate on very fancy public spaces, from 1550 to the present, across dozens of media, in a shell game as old as prostitution itself. These spaces were set up to provide only the fragrance of desire, for po-

litical or financial profit. But most of all, they were set up to release a “marvel,” a briefly eloquent stupefaction. Its effect could be a trifle bawdy, yet safe enough for church—a glimpse of a thigh, perhaps something exotic, supernatural, even deeply religious. The thrill might be a ride that pretends to kill you, or a rowboat that takes you past death itself. Or it might be the “blow hole” in old Coney Island, where a gust of air would blow women’s dresses up to their waists, while men would wait below—online—for a glimpse. I have interviewed several ladies who remember the “innocent” fun of the blow hole, and the men who would smile innocently afterward.

Of course, all this brings me to a confession, in the spirit of modesty. I almost never join any organized game. I don’t see the fun in being an accomplice. This has occasionally led to research problems, when trying to enter the mind-set that makes for special effects. For example, I get restless on long lines at Disneyland. The obsequious good cheer gives me an ache. I remember a particularly grumpy—blazing—August day, when suddenly Mickey waved at me. I shook him off. All I could see was some poor soul, a worker impacted inside,<sup>3</sup> sweating like a candle, in a state of arrested decay.

What’s more, I much prefer special effects when they are ruined. For example, occasionally, I conduct sim-tours of Los Angeles. That is the opposite of my anti-tour,<sup>4</sup> where every building I point out is missing. On the sim-tour, no buildings are missing. But everyone I point out is a fake. I really like fakes, the blunt enthusiasm of them. A few years ago, during one sim-tour, we stopped at the New York Street in Paramount Studios. Toward a far corner, everyone noticed one brownstone building peeling like wallpaper. It looked weirdly “Baroque.” Like *trompe l’oeil*, the solid vanished into a wafer of nothing. Ten people in the group ran to get photographed in front of the peel, with the silly chicken wire behind it. I tried to warn them that they were wasting their film. Once light passes through the lens, the *trompe l’oeil* would recede. The photos back from the lab would look completely normal, like snapshots of midtown Manhattan.

Another example of “ruin”: In 1993, I visited the Luxor in Vegas soon after it opened. Luxor was billed as “the first pyramid in 2,600 years.” While I leaned at the entry, a chunk of the front wall broke off in my hand. It was weightless, made of stucco, chicken wire, and Styrofoam. For years, I kept my chunk of the Luxor on a shelf near my computer, beside a piece of the Berlin Wall; next to broken pottery shards from Armageddon (I had found them at a parking lot in Israel, at Megiddo, the spot where Revelations promises the world will

end); and finally, near some tattered first editions of pulp novels from the fifties (urban ruin as special effects).

What's more, I grew up in a neighborhood where special effects could only be found as ruin, in the slums of Coney Island. From the boardwalk, I would lean on the rail, to watch sailors and Gypsies mingling (and commingling) on the empty sites where amusement parks used to be. Down by the shooting galleries along Neptune Avenue, the stares from twelve-year-old Gypsy prostitutes terrorized me. Some were even younger than I was. I was afraid to meet their glance, because they'd know that I was too naive to understand what they wanted.

Thus, special effects implied an urban tug-of-war, between Jews and Italians, sailors and Gypsy girls, Puerto Ricans and Irish youth gangs, while I watched the fireworks from my fire escape. No wonder I keep finding power struggles, and layers of erasure, in my research on special effects. At the same time, clearly our culture needs to unearth these anyway, to concentrate on the cracks in the pyramid. Frankly, the rot in amusement parks is visually breathtaking. It humanizes the effects, takes us inside the deal that the audience once made with the program.

And it is indeed a venerable deal. For Vegas "architainment," the clearest points of origin go back to the Baroque. When the Forum shops opened at Caesar's World in 1992, they were hyped as "timeless replicas of a street in ancient Rome." Similarly, when Caesar's itself opened in 1966, it featured "Rome swings," and a Circus Maximus "showroom," lined with "exact" copies of Venus de Milo, Canova's Venus, many Venuses. Poolside was an "Olympic" sized replica of the baths of Pompeii, where showgirls dressed like Cleopatra greeted guests as if they were Richard Burton. It was Casino Renaissance; then after 1989, when Steve Wynn opened the Mirage, it became the "Electronic Baroque." Finally, in 1999, for the New York Times, Wynn officially declared that Las Vegas is a Baroque city.<sup>5</sup>

That was very much the spirit of the nineties: hundreds of "sim" Renaissance and Baroque buildings added or rehabbed. In Clark County, Nevada, a 1550s style of Tuscan villa caught on for town houses, then spread to Orange County, and to beach towns in southern California. Even movie shrines were given more helium during the nineties. Along Hollywood Boulevard, a copy of Griffith's Babylon set (1916) introduced the new Kodak Theater (2002), next door to the newly polished pagodas of the Mann's Chinese. These, in turn, compete with a pharaonic promenade added to the Egyptian Theater, and newly technicolored Moorish interiors for the El Capitan (1926; rehabbed by Disney in

1993). On the ceiling of the El Capitan, dome paintings from Spain and Italy have somehow migrated four hundred years;<sup>6</sup> a twisted mutation certainly, but there it is. Whenever technology changes, special effects will grow a new tail, even a new head, but still manage to dig the same hole.

It still frames the same kind of thrill, a sudden yet fragrant shock. Special effects could probably survive a nuclear winter. They easily survived the bombing of the World Trade Center. How many times have we seen Jesus crucified, witnessed the end of the world, watched humans morph into beasts? We walk in air-conditioned comfort through the most terrifying verses of the Bible. Why are special effects so durable, particularly about terror? Are effects today, from cable news to Harry Potter, part of a Baroque cover-up? Indeed, in many ways, they obviously are. Thus, parallels with the period 1550 to 1780 are very instructive.

These parallels bring me to the theory behind this book—the political unease behind the staging of Baroque effects, then and now. The deeper this unease, the more flagrant the tricks. Deceits were tortured. As in our era, this fakery serviced “global” or transnational arrangements. It twisted them, posed them. But beneath the lavish shamming, monarchs were caught between fundamentalists and greedy corporations. And of course, then as now, they often chose badly. Their lopsided kingdoms matured during religious wars. They sponsored lavish special effects in response to these wars, about terror and terrorism. And like our disaster movies, Baroque effects relied on “software” of a kind: solid geometry for architecture, optics, sculpture, paint, theater. Numerous handbooks after 1550 detailed how to build these illusions, including charts for carpenters, and texts by leading architects like Serlio,<sup>7</sup> the painter Fra Andrea Pozzo,<sup>8</sup> designers like Joseph Furtenbach the Elder.<sup>9</sup>

During the eighteenth century, quadraturistas, or illusionistic painters, operated practically as a guild through western Europe, along with the final phase of the Baroque fantasy—automata and “toys.” When all these faded, a period of transition led to industrial replacements, new forms of lavish effects. At the same time, Baroque crafts, even as they faded, led to science fiction itself, and finally to cinema; and in recent decades, to the eccentric trail of scripted illusions that we find today.

These parallels also bring me to the structure and rhythm of the text. The title, *The Vatican to Vegas*, is not simply rhetorical. It refers mostly to a history that I have constructed, from about 1550 to 2003—about special effects as an instrument and critique of “power.” The research moves through architecture, philosophy, literature, theater, optics, mathematics, technology, pageants.

Clearly, somewhere around 1550, a grammar that suited them all came of age. It was modeled mostly on *perspectiva as barrocco* (or *barochetto*)—on perspective elegantly awry. This grammar delivered entertainments strangely like those we find today about disinformation, cybernetics, gala role playing, user friendly paranoia.

Of course, occasionally, to deliver all these connections, I will drift back even earlier, to pioneers like Brunelleschi, Uccello, Masaccio, Leonardo, Dürer, Alberti. But very clearly by 1550, their “magic” had become widely available. Masters of special effects—of turning perspective awry—could simply purchase the kit.<sup>10</sup> In Italy most of all, and soon after in Germany, France, and Holland, optical craftsmen standardly knew what tools were needed. Even the mathematics was nearly standardized, with staggering applications across many fields at once.

No wonder these masters were “Renaissance men.” They were arguably the first “data” engineers. Eventually, careers for these engineers had solidified. Perspectival illusion became practically an established, all-purpose profession. It could serve for war or spectacle, based on similar mathematical blueprints: grids and solid geometry. These blueprints could sail a ship to the Americas. They also could sail a ship inside a theater. Perhaps Leonardo was not a scientist in hiding, drawing those elegant winged machines. Perhaps he was drawing science fiction. As one of the leading military engineers of his day, he knew that most of his sketches were unbuildable. However, myths of Renaissance visuality demand that he be a NASA prototype. For this history, he is also an Imagineer.<sup>11</sup>

In his famous sketchbooks, Leonardo uses Albertian “absolutes”<sup>12</sup> to design *fantasia*, which meant literally the site where imagination dwells in the soul.<sup>13</sup> Leonardo also built dozens of scientific illusions for pageants and theater, even mechanical “toys” for the court, like his haunted alarm clock.<sup>14</sup> We mentally gather these together, in a room, like a cabinet of curiosities, or a memory theater. We walk through. They add up to a mystified, sensory form of storytelling: *istoria*.<sup>15</sup>

But Leonardo was still early in the game. Eventually, a narrative, architectural grammar was set in place, for tricks indoors and outdoors, mechanized to move, or sculpted. And then in the late twentieth century—after 1955—a similar grammar was rediscovered. Thus, from Baroque Rome to Baroque Vegas, with a stop at Disneyland on the way, we can mentally walk through an odd continuum, through spaces and instruments of illusion that are strangely parallel.

Of course, I realize that for histories constructed in this way, the past is always basically the present. It is an ironic history of techno-illusions, with hundreds, with thousands of documents buried inside. The basic arc may be simple enough—Baroque to electronic Baroque. But the ironies presented by the evidence make for very odd structural transitions: how these effects were staged, who paid and why, who cheated knowingly. The eras that fit special effects do not always match other historical models. The fragrant machines warp more than transform, operate against the historical grain, almost as a conservative denial of history. Optical mechanics warps toward cinema, from 1660 to 1893, but often as a reaction against industrialization. Panoramas in 1829 warp in two directions—toward industrial skyscrapers and toward neo-Baroque trick films.

Special effects do not make for the usual teleological history. Instead, they are a history of surprising connections, like effects themselves. They are more often a record of collective forgetting and collective sublimation. However, my research does clearly point toward a few constants. They repeat in literally hundreds of documents and interviews.

The first time, inside a layered, aromatic space, special effects tell their “story” in a few seconds. They are coup de theatres, thunderclaps that shock you: a burst; an eruption; something small, like an insect down your back; a wall dissolving suddenly. That has affected the rhythm of this book. In order to describe how these shocks feel, I have accelerated the language, used tricks that speed up the imagery, to show the phenomenon itself. If the text occasionally runs like a jump-cut movie trailer, it is because I am delivering three acts in two seconds.

The next constant involves scripting. To pack the wallop they need, special effects must reassure while pretending to “shock.” The terror has to be honeyed. It cannot strangle you hopelessly into a corner. So there will be a lot about how the scripted space is nailed together, how the nails themselves are an apparatus that tells a story. This story delivers special effects about trauma and paranoia. It is a comfort zone about terror itself. But I do not mean terror as in horror. I will deal more with special effects horror in the second volume. That is a somewhat different subject, more about conscripted spaces, interior topology. For this book—and a vast enough subject indeed—the effects I cite were too expensive to simply chill you into heart failure. In these scripts, the fragrant ambience also had to defend the power of princes and kingdoms. These shocks might pretend to drown you, but only in six inches of scented bathwater.

## The Politics Behind the Shock

We review the plain facts: A special effect, by definition, “fools” the audience. By fooling, it manipulates them, on behalf of whoever runs the game; let us say, on behalf of those “in power.” But this is hardly a sin, not in our civilization. Many very great Renaissance/Baroque masterpieces qualify as media manipulation. And those are worshiped. What’s more, we all love to be tricked by some version of the sublime (or by sublimation, at least). So rather than praise or condemn how manipulative effects can get, why not simply discover their nuances, as well as their cracks? When is a trick as thin as an eyelash? How does it “work” an audience—“immerse” them in scripted revelation, from resurrections of Jesus to a night at the casino?

Imagine an audience in 1470, staring up at three-point perspective in Mantegna paintings<sup>16</sup>—up the skeleton of a dome, with its oculus staring back omnisciently from the roof. This was probably a virtuality of such exquisite, luminous irony that the wall itself must have “melted.” However, by second viewing, even the next day, one’s eyes began to adjust. This magic had become familiar. The narrative had evolved. Even in 1470, in the hands of an exquisite master, the “virtual” was relative, even unstable—certainly mutable (and probably, it was designed to be).

At the same time, the prince’s bald political power was not at all relative. The influence of princes—and wealthy merchants—floated comfortably inside these illusionistic settings, much the way it does today along monumental consumer streets. Or even on the Internet, or in a movie where the computer makes the world explode. What would Hitler have done with computer graphics? Or the Roman emperor Augustus? Imagine the computer in the hands of a powerful medieval pope like Gregory VII,<sup>17</sup> who once forced the Holy Roman Emperor to walk barefoot in the snow for three days.<sup>18</sup> As a literary effect, we zap Gregory back from the afterlife, let him stroll through a trade show on new software (something like Siggraph). Pope Gregory is ecstatic. He declares the computer “godlike.” It is a *Sacrorum Concilium*<sup>19</sup> pressed like flowers inside a small box. He touches the interface. The box suddenly hums, agitates. He steps back, thrilled, then makes a statement: “Never before have I seen entertainment, salvation and power tied by a single knot. If popes had computers in my day, they would have rendered unto Caesar ... simply nothing.”

One could just as easily imagine what a revolutionary Puritan in the seventeenth century might have done with software—in the Weberian sense: make special effects to prove that predestination does not inhibit free will. One can

see what special effects are doing today to democracy. Or should I say when democracy operates like a game? Inside this game, the audience pretends to share authority with those in charge. But by the end—like sex in the parlor while your parents are asleep, or like masturbation or solitaire—no power really changes hands.

It is astonishing how often, over the centuries, special effects have set up imaginary power struggles very much like that—in theater, on the screen, in media politics, on the Internet, and so on. For each era or type, I will start with one case study where power is a special-effects struggle. Then I will take this game apart like a clock, and proceed from there.

The case studies will range from the sublime to the shoddy. However, my research has shown me that almost none of us is immune to even sleazy special effects. I certainly won't pretend that I am, not after researching 450 years. I have discovered that I can be suckered by gaudy movies as much as anyone else; and by splashy gimmicks in architecture, theater, urban planning, painting, social history; literature, publishing, philosophy, science, technology, scenography. In my research, I was surprised by how well many designers understand these tricks as expert craftsmanship—down to three acts in a few seconds. Also, designers kept reminding me that they wanted the spectator to notice how paper-thin the effects were. Thin was elegant. Thin showed control, like a ballet.

That was a chastening discovery. Afterward, I stopped trying to deconstruct what to them was obvious. Better to put aside almost every term based on the nonlinear, on abstraction, simulation, neo-Kantian allusion. None of those quite fit the evidence. Special effects were simply not a copy of the real; not even a copy of themselves. They were medicine where the doctor helps the patient fake her surgery. They were “complicit.”

It will take a while to discover how this complicity works. We will proceed step by step, one spectacle or gizmo upon the other. Clearly, special effects often required a double collusion. Two cheat codes (“folly”) operated at once, each erasing the other. One code helped the prince cheat; the other helped the player. And yet they visually coexisted, like two thieves breaking into the same window. This was very common in Baroque labyrinths, also in trompe l'oeil and anamorphosis. What's more, this doubling of the special effect, according to social class, was commonly understood by artisans and artists centuries ago, though often ignored by art theory after 1800.

## How to Navigate 450 Years

After 1800, very little theory was written about the narratology of special effects altogether, almost nothing about power-brokering as a poetics. By comparison with 1750, we run short of terms. It makes sense to borrow from Renaissance and Baroque sources. For interviews, I only repeated terms (old or new) that seemed crystal clear, market tested. Generally, the clearest terms revolved around a single question: how do your tricks get the viewer to walk through in comfort, without being bored? In other words, effects masters will script their paradoxes by the square foot, like labyrinths.

But one term tested the best by far—scripted spaces; it seemed to explain itself in every interview. It is clearly the best point of departure. With scripted spaces as a tool, I can easily launch into chapters on the scripting of illusions in architecture from 1550 to 1780, then on toward cinema and amusement parks, and finally to our era, when both architecture and film coexist inside the same moment. By decoding scripted space, we learn how power was brokered between the classes in the form of special effects.

Scripted spaces are a walk-through or click-through environment (a mall, a church, a casino, a theme park, a computer game). They are designed to emphasize the viewer's journey—the space between—rather than the gimmicks on the wall. The audience walks into the story. What's more, this walk should respond to each viewer's whims, even though each step along the way is pre-scripted (or should I say preordained?). It is gentle repression posing as free will.

How is this scripted freedom accomplished? The entrances and exits are often fixed, and the perimeter isolated from the world, as at Disneyland. From front to back, the choices are defined; yet somehow the walk is supposed to feel open. The design has to justify the price that the spectator pays. The trade off must “appear” flexible somehow, reveal many ways to go, even if there are none. You are always at a fork in the road, deciding to give up this for that. Thus, the player can enjoy feeling a “little” bit trapped.

Scripted spaces of this sort are common to all theme parks, casinos, computer games, and Baroque churches. The reader probably has thought of ten very personalized examples by now. Here is my favorite list: A walk to an execution is a scripted space; an entrance to a brothel; the twelve stations of the cross; refreshments at Disneyland; the placement of kitchen supplies at a supermarket. Even an overdesigned bathroom can be a scripted space, but a little tedious in an emergency.

Researching scripted spaces easily gets out of control. Broad parallels crop up everywhere. A medieval water clock resembles King Kong (both are automata). Baroque landscaping looks like a video game (both are labyrinths). Practically any form of surreal<sup>20</sup> bricolage can be a scripted space, from medical charts on the small intestines to the puzzled stares of bored store clerks at the mall. The symptoms grow like an infection, like medical students checking for rashes on their faces. So to avoid endless symptoms, I should narrow my categories: By scripted spaces, I mean primarily a mode of perception, a way of seeing.<sup>21</sup> This helps us notice instructive pairings that are basic to special effects, what Magritte called affinities: the Vatican paired with Vegas casinos; Baroque cities with Disneyland; mega-malls with computer games; the Crystal Palace Exposition of 1851 with armchair imperialism; *Star Wars* with video games; gun sites with Flash software.

Within these scripted spaces are slender epiphanies, like the instant when you glance up at Mantegna's ceiling of 1470. They are a scripted phenomenology, where the shock that is a "special" effect can be very, very brief—brief yet scrupulously designed: again, three acts in a few seconds. During the Baroque, these few seconds were often called "moments of wonder."

## The Tone of a Good Shock

Similar to what I suggested earlier on rhythm, the tone of this book must reflect that kind of sensory surprise. I promise to use some well-tested literary gimmicks, even structure entire sections as a special effect. Among my sources: Poe on "effect"; Barthes; Nietzsche; Nathalie Sarraute; Proust; Woolf on moments of being; Balzac's cognitive maps of Paris; Johan Huizinga;<sup>22</sup> Situationist détournements; always Foucault; always the history of animation and media; Benjamin's sense of ruin. But inside this obsessively researched book, fictions still have to invade the evidence.<sup>23</sup>

Special effects operate also as literature. In fact, I am quite convinced that the book itself is a Renaissance computer. So, to assist the literary tone and rhythm of special effects, I have upgraded the appendix. I have added a search engine right before the index in the back. As in *The History of Forgetting*, the appendix should help the reader to return to the moment when fiction and fact were simultaneous, to the shipwreck diary of Henry Selkirk<sup>24</sup>, whose memory was alive to readers when they opened *Robinson Crusoe*. For this book, I particularly want to highlight the moments when Poe and Verne turned Baroque spe-

cial effects into “science as fiction.” They understood what has become obvious now,<sup>25</sup> that scholarly evidence operates as special effects. Making history look continuous is fundamentally a fictive act. I believe, therefore, that the honest scholar should try to keep those fictional tricks right on the surface. Otherwise, in our bizarre civilization most of all, fake “objectivity” becomes very dangerous. As an afterword, we will enter the election of George W Bush and the war on terrorism as a special effect, about the events after September 11 as another stage in the horizontal shifts in power during the era of the electronic Baroque, particularly about news media as an instrument of power. Clearly, as of 2003, the American presidency has formed an alliance with cable news, to use special effects as a homely tool of government. A carefully scripted briefing can erase any scandal (except perhaps scandals in the stock market, where profit, the ghost behind special effects, is too real to fake).

Also Part IV—on the present—shifts tone from earlier chapters, to match the low-grade attack of nerves that has afflicted the culture of the United States in 2003. A second volume will be needed, to respond to the rapid changes coming over the next few years, to the “new fun” and terror in the pipeline. Even more cheerful but alienating special effects are coming soon. “Buckle up.”

## What Is a Special Effect?

A technological marvel controls an illusionistic environment. It has been set up to deliver elaborate shocks. Within these shocks, an allegory emerges. Staged as an epic journey, this script immerses the viewer in a reassuring adventure. This adventure is often about a “marvelous” power larger than life, larger than humans alone can ever hope to be.

## How Special Effects Reveal Political Anxieties

Starting at 1550, concluding in 2003, I will track the political anxiety that hides behind the sweet shock of a special effect, how it literally flirts with death. But very often, these scripted shocks suddenly feel prophetic, painfully close to how power actually operates, like terror as a computer game; or auto-da-fe as theater, the burning of witches as special effects in seventeenth-century Spain. We should never distance these “effects” by calling them surreal or simulated. Even when they look very blithe and dreamy at first: underneath, they are designed to convert terror into a friendly ride.

A blend of gentle illusion and raw power, special effects often theatricalize political disaster: shipwrecks; wars; rape and pillage. The gaudiest effects probably came out of Italy during the Baroque era, during a global economy peculiarly like our own. There lies our clue: Then, as now, special effects were shock absorbers. They were found to soothe the terror by packaging it (in atmospheric spaces, but as fragrant as a corpse in the backyard). The more disastrous the spectacle, the more fragrant immersion that it required, the hints of terror that spice the effects. Then as now, 1550–2003, the viewer gets to sit like a general watching the war, pretends to be ordering soldiers into battle, in 1618 or 2003.

Occasionally, these imagined disasters reveal more than they were supposed to. I had no idea while writing this book that special effects during the nineties might portend real events today: Many chapters written before September 11, 2001 fit too conveniently into our emerging nightmare. Some of the worst came true. Now, I have to add an afterword about our Thirty Years' War, as part of our electronic feudalism during the Electronic Baroque. The irony feels much more chilling than a special effect.

Many seigneurial arrangements—feudalism—died after the pandemic of the Black Death in 1348. They were unstable remnants by 1650, but crucial to governing the state. At the same time, what remained had become a globalized blur, both real and imagined, wars on terrorism that turned upon themselves during the Thirty Years' War, 1618–1648.

For the prince, these creaky seigneurial rules of order were not enough to support the state. He made alliances with merchants, to prop him up against the warlord tendencies of this dissolving situation, to invent a “neo-feudal,” absolutist kingdom, often as much imaginary as real. The civic culture that expressed this uneasy alliance was special effects.

Similarly, in 2003, the vertical industrial nation-state has proven creaky: In place of its egalitarian fantasies and facts, a horizontal crash has begun. Power vacuums are releasing local ethnic and fundamentalist impulses that have lain relatively dormant for centuries. Global media and special effects—the Electronic Baroque—have become central in bringing imaginary order to this horizontal crisis, and to the uneasy alliances it brings.

So we will certainly get to 2003. I ask the reader to be patient while I get there, to treat each chapter as a subplot inside a larger journey, like a novel that ends with a bang. It will take hundreds of pages to fully explain this link between political nightmare and special effects, how the effects were engineered. But even more crucial, “why” they were produced. Unfortunately,

we often don't know why: Why is the engine that makes this book a little like historical fiction, like relentless characters inside a Balzac novel.

## Chapters as Journeys

The chapters operate like a picaresque about

1. the sensory immersion of a special effect
2. the way it was engineered
3. its relation to power, both then and now

They resemble a Baroque journey, as in an eighteenth-century novel, perhaps a Saragossa *Manuscript*,<sup>26</sup> or *Clarissa*. The characters in this story travel across time, from Baroque special effects to the era of the Electronic Baroque (1955 to the present). But they get thrown by obstacles along the way: There lies the pleasure of the picaresque—its contrasts, its enigmatic spaces. Of course, I'm so deep into the material now, reading itself feels like a collusion, like special effects; or a picaresque diary of marvels. We will make this journey in three parts, triadically: First, we concentrate on Baroque architecture. Then we shift toward nineteenth-century optics and industrial illusion (panoramas, world's fairs, Coney Island). The industrial seems to contrast with the Baroque, until they merge after 1955. In the world of special effects, the abstract is an absence made for illusion.

- Part One: Immersion/Scripted Spaces 1550–1780: Architecture, Theater.
- Part Two: Transition: The late Baroque: automata and other gizmos, the shift from scripted spaces to ornamentation. Then the shift toward the panoramic, and the birth of science fiction as special effects.
- Part Three: Screen Entertainments, 1895 to the Present. Industrial Special Effects.
- Part Four: The Electronic Baroque, in stages after 1955.
- *Afterword: Transitions since 1989.*

These four operate inside a simple chronological machine, with breaks inside on behalf of special effects, as they responded eccentrically to shifts in power and technology over the centuries. This chronology appears more fully in the appendix, which is linked to the index—as a “search engine,” for the history of special effects.

## Software

This book is designed as a computer 450 years old: the chapters, index, notes. This “Baroque” structure helps me to explain how “software” since 1550 has serviced special effects. Of course, since the movie *2001* (1968), the power of digital effects has incrementally advanced, into architecture as well as media. But we need to take the long view. Arguably, the closest cousin to the computer is the book itself. The Renaissance invented data that required new designs for the book—about perspective for war and theater, as well as for maps, charts, graphs, navigation both real and fanciful. To enter this Renaissance computer, the reader is invited to click to the search engine at any time.

## Hoaxes

When text in a book generates special effects, what does that look like? The answer is plain enough. I need to occasionally lie, throw in a fictional surprise, on behalf of the few seconds it takes to fool the reader. I should fluctuate between fiction, hoaxes, political intrigues. For the tone of the writing to be sensory and atmospheric, in the sense of special effects, I need to mix in the fictive and the novelistic. The tactile and auditory in effects belong in writing.

There is also a problem of length. It will take two volumes to complete the full story (particularly since 9/11 has utterly shifted the direction of special effects worldwide). Volume I travels mostly through the expensive publicly financed illusion. Those were perversely lavish scripted spaces, sponsored by princes and giant concerns. Volume II, by contrast, will descend into something more private—toward the architecture of “paranoia.” By that I mean noir/gothic paranoia since 1620—horror, criminalized illusion, revenge dramas, and a lot more on special-effects cinema. Volume II also will shrink special effects into miniatures, a shilling or dime’s worth, into the nano of special effects since 1700, the invasion of the body by special effects, under the shocks that will emerge after 2003. However, like Volume I, the structure and rhythm will have to match the intent. The phenomenon of descending into scripted paranoia will require some literary license. Certainly for this volume, this license includes the Renaissance computer, as a data picaresque about scripted illusion.

But despite where the journey takes us, the picaresque must be as convenient (and user friendly) as a railway timetable in 1860, even if it slips off track, into absences, through phantoms and fakes. In other words, convenience

means a familiar routine, from chapter to chapter: Each will start with a case study about the reception –the phenomenon of special effects. Then on to the theory implied by this effect. And finally, its burden or surviving mutation today. That way, I take apart the case study like a clock, particularly its grammar (three acts in a few seconds), its erasures, its artifice.

Of course, to get started, the traveler must pass through an ornamental entrance. That was the ritual of special effects. For centuries, curtains were trick entrances more than fourth walls. But I prefer to enter by a ruined path, something a bit cracked, like my childhood memories of the boardwalk in Coney Island, special effects as carnies in ruin, like a carny barker at a forties midway.

## Entrance to a Freak Show

The circus barker was a uniquely American conjurer for special effects.

His job was to get the spectator to commit. Consider the description in William Lindsay Gresham's classic carny novel, *Nightmare Alley* (1946):<sup>27</sup> "Clem Hoately, owner of the Ten-in-One show and its lecturer, made his way through the crowd." He rinsed his mouth with water, spat to clear his throat, then mounted the step. He started his pitch in a "low and conversational" tone, to sober the audience with hokum about scientific curiosities. They remind me of the science hoaxes that led to Poe's science fiction in 1835; or to Méliès' magic act, before he made films.

"Folks, I must ask ya to remember that this exhibit is being presented solely in the interests of science and education." Immediately afterward, a drunken "geek" stepped out of a pit, fondled a snake, then strangled a shrieking chicken. Presumably, the barker's spiel and the geek killing a living thing will lure the audience past the entrance, and distract from the naked greed that was easy to see. In the audience, Stan "noticed that at one corner of [the geek's] mouth, there was a glint from a gold tooth," a forced smile. The entrance to a scripted space must resemble a conjuring, filled with "blinds" that promise something wondrous inside (three acts that shock you in a matter of seconds).



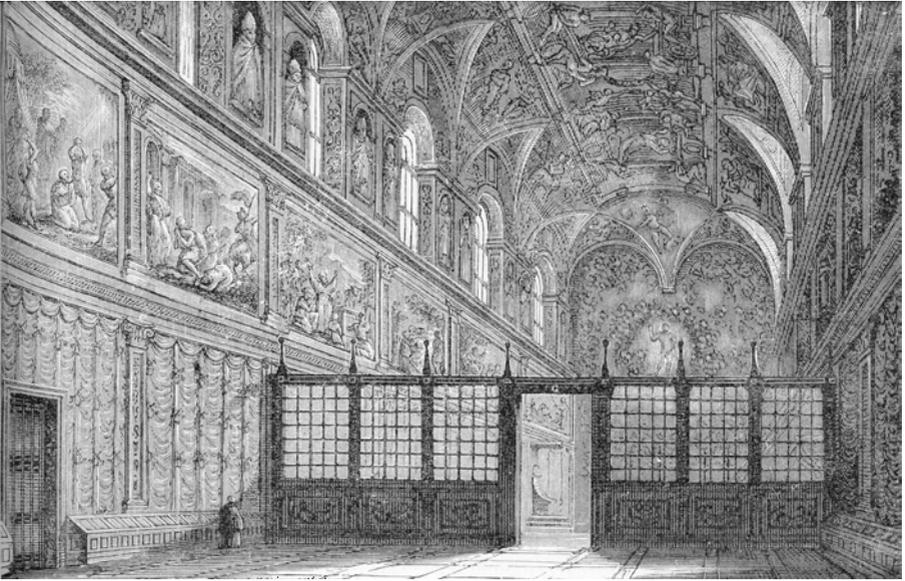
# **Part I. Scripted Spaces and the Illusion of Power, 1550-1780**



Athanasius Kircher, *Frontispiece, Ars Magna Lucis et Umbrae*, 1671 edition, original 1646. A scripted journey similar to immersion under a painted dome, using optics and mirrors (also alchemical and cabalistic symbols). Divinely inspired sunlight bounces off the moon, pierces the soul (grotto), and enters the kingdom of the prince. It also illuminates a sheet of paper.

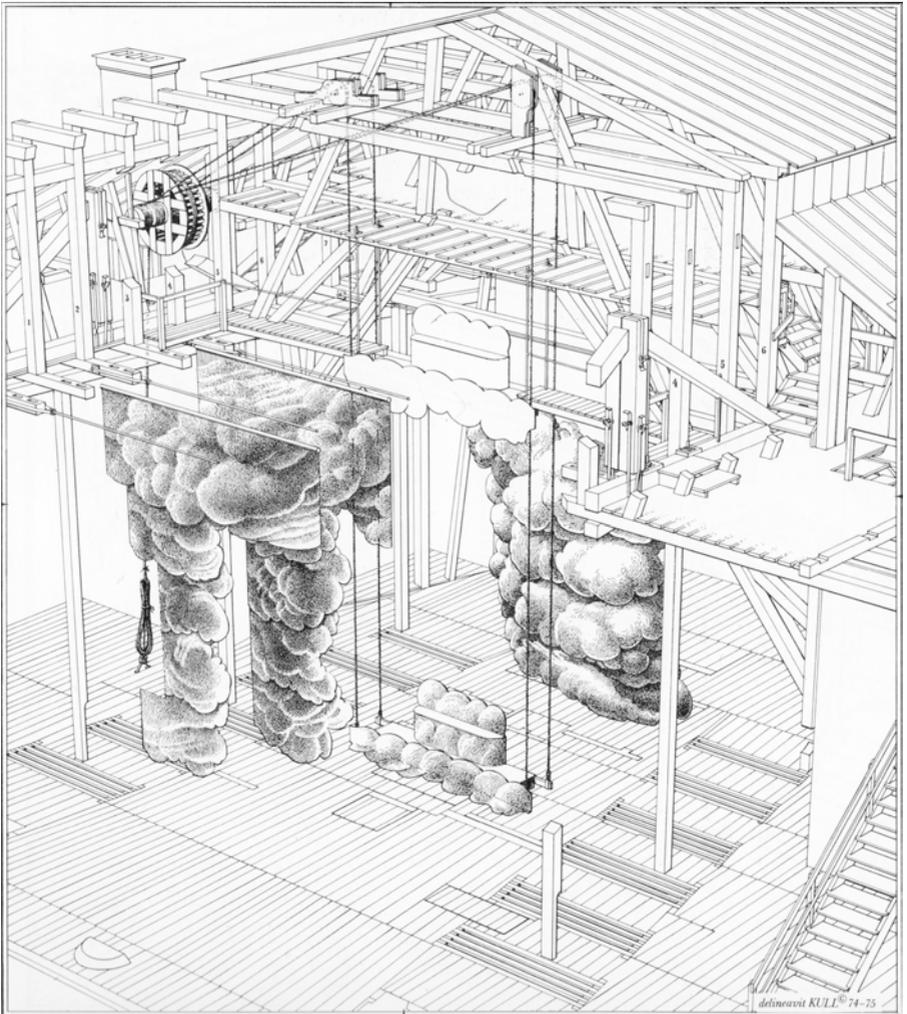


*The Sistine Chapel. Engraving by Francesco Panini, 1766.*  
(Photo courtesy of the Research Library, The Getty Research Institute, Los Angeles)

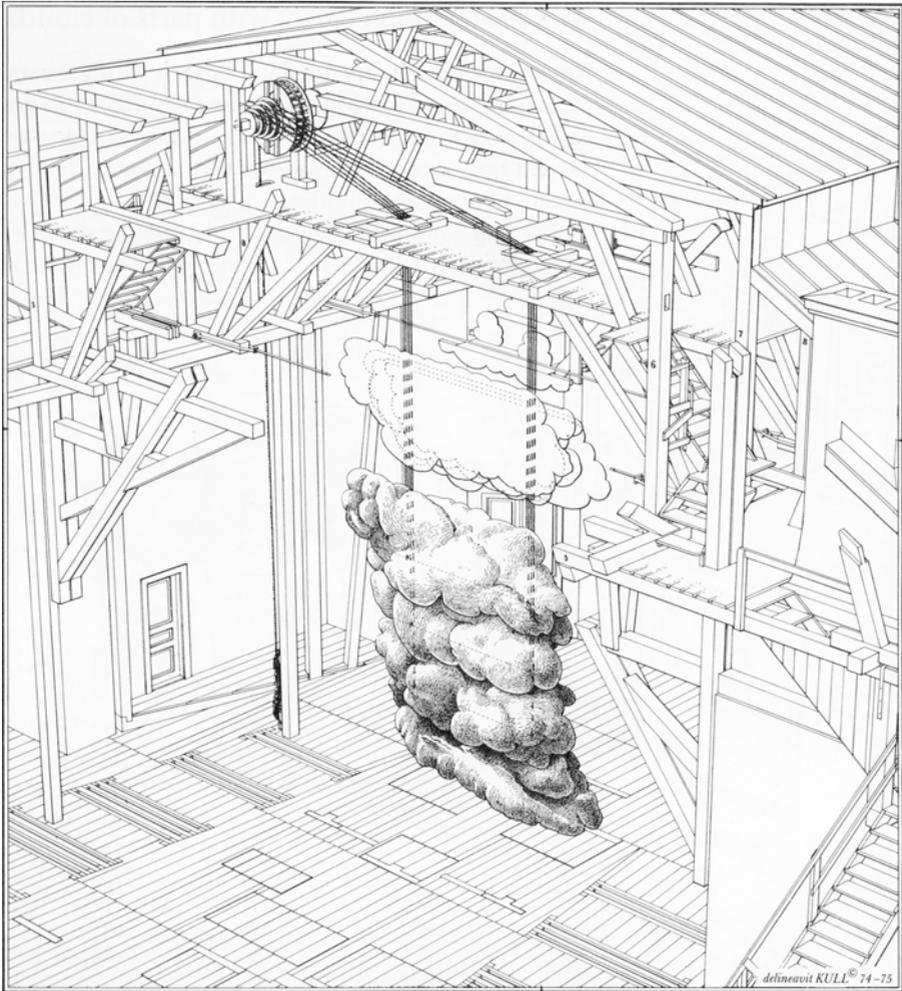


*Inside the Basilica of St. Peter's. 1766.*

(Photo courtesy of the Research Library, The Getty Research Institute, Los Angeles)



*Drottningholm Court Theater (Stockholm, 1762). The Cloud Chariot can hoist actors to and from the sky (deus ex machina). Meanwhile, downstage, clouds on wings also move.*



*Drottningholm Court Theater (Stockholm, 1762). Closeup of the Cloud Chariot.*



Act III, *Andromède* by Pierre Corneille, Paris, 1650. Perseus flies over a churning river. The head of the Medusa is strapped to his shield. Lines of myrtle and jasmine trees have turned to stone. A sea monster threatens Andromeda, who is chained to a rock, and fog drifts in from the horizon. Engraving by Francois Charpeau, 1651.

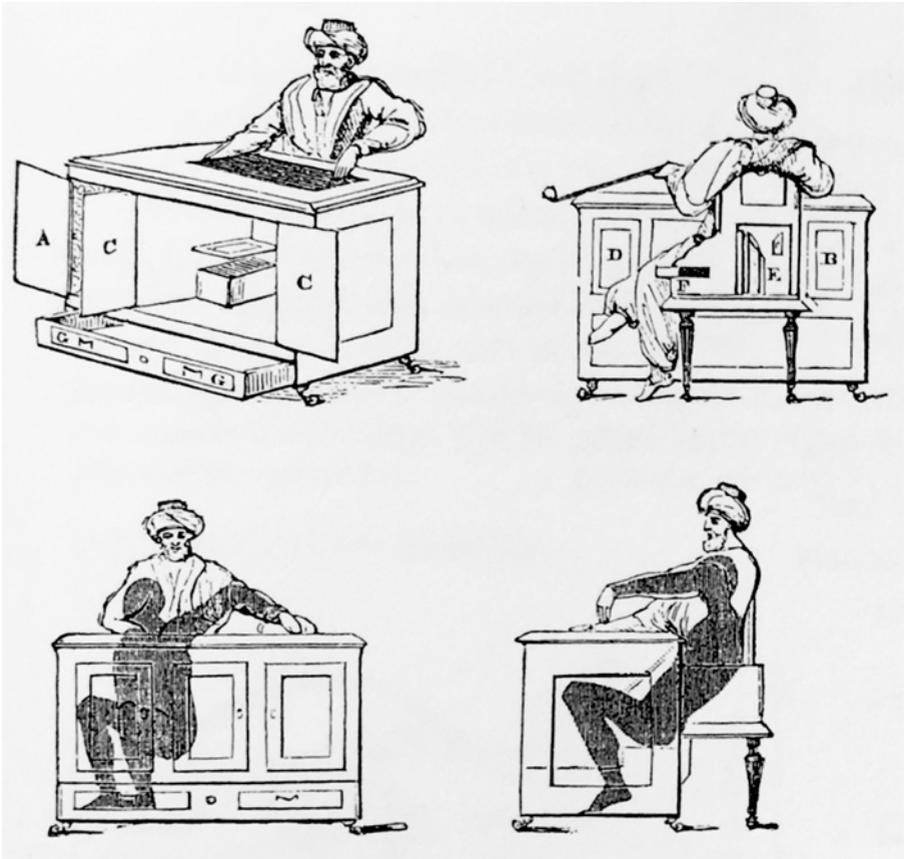
(Photo courtesy of the Research Library, The Getty Research Institute, Los Angeles)



*Prospettiva della Prima Macchina de Fuochi d'artificio rappresentante il Monte Parnasso, su di cui si vede Apollo con le nove Muse, e sotto un Bacchante di Satiri, e Sileni, intere quelle à nobili Studij, e questi à tripudj, e Feste, alludendosi con ciò alla felicità de tempi correnti tranquilli, che dalle providè disposizioni di S. R. M. C. e C. si diffondono non solamente per tutto il Romano suo Imperio, che insieme à tutta l'Europa, che grata celebra le glorie dell'Augustissimo suo Nome. Fatta incendiare la suddetta Macchina da S. E. il Sig.<sup>o</sup> Principe D. FABRIZIO COLONNA Gran Contestabile del Regno di Napoli, come Ambasciatore Cesareo straordinario, e perpetuo, la sera della Vigilia de SS. Pietro, e Paolo Apostoli, dopo avere il giorno istesso presentato à Nome di S. M. il solito Conno, Chinata alla Santità di CLEMENTE XIII. Sommo Pontefice l'anno 1733.*

*Dis. Batt. Sintès Ingr. in R. Roma. Lito. de. Sa.*

Ephemeral architecture for the fireworks display "Apollo and the Muse at Mount Parnassus" (Rome, 1733). Structure attributed to architect Nicola Michetti and etching by Giovanni Battisti Sintès, both specialists in outdoor special-effects.



*Chess players hiding inside the Turk.*  
(David Brewster, Letters on Natural Magic, 1831)



PLATE XVI

### VIEW IN THE MONK'S PARLOUR

*The Monk's Parlour at John Soane's Museum, 1814. Soane turned the Baroque archive into a Romantic journey; the fake ruin as a late Enlightenment library.*

# 1. Baroque Immersion, Baroque Artifice

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## Moments of Wonder

1647:<sup>1</sup> Cyrano de Bergerac begins a slim novel entitled *A Voyage to the Moon*. His language clearly borrows from theatrical special effects, terms like chariot,<sup>2</sup> machine, and engine, as he ascends to the moon. The terms were commonly identified with the theater; Cyrano was also a playwright. However, he broadens them into entendres about technology, media, metaphysics, alchemy (which he attacks);<sup>3</sup> and of course, politics. While in his machine, Cyrano muses about Galileo's astronomy, Parisian foibles, scientific materialism, and sexual libertinage. He visits philosophical cities as artificial as theatrical machines on stage. He finds kingdoms in accelerating perspective, near planets dangling from cosmic ceilings, with the sun as a plate of gold. Birds metamorphose like automata.<sup>4</sup> And his seat within all this is a "gondola," essentially a theater box worthy of a philosopher.

The sky that he finds, like painted skies in theaters and palaces, stands in for political and metaphysical immersion. It is a canopy above the state, and closer to God. The canopy is an inverted bowl filled with every space that cannot be found, only theorized. This space is quite artificial, very much like perspective awry on a ceiling. It is scripted for a philosophical voyage, a journey of initiation.

En route, Cyrano becomes as wise as the philosophers who stand guard over the cosmic truth. He learns that each world contains—or encloses—another world. The first of these, the canopy sky runs according to Copernican laws. These laws safeguard the orbit of what lay inside—a microcosm. This microcosm, in turn, contains many kingdoms.

However, the most precious world imaginable is almost nothing at all. It is the space between the canopy and the microcosm. This space is so subtle that it does not even require an atmosphere. It contains a noosphere instead,

charged purely with meaning, like a burning phosphorus, or the stomach of a great magical whale. Once you travel through it, if you have built the right engine, as Cyrano has, you learn secrets preserved only for philosophers who are daring enough.

I like to imagine Cyrano taking a day off from writing his novel. He visits a theater fully loaded with the engine of special effects. There, he sees a painted chateau disappear onstage, into thin air, or thinks he does. A seaport has replaced it, in deep perspective, with a ship about to set sail, and a whale spouting silver dust at the harbor's edge. He is left startled and in wonder, ("*emerveillant*"<sup>5</sup>). How was this done? That week, Cyrano would find a new handbook on special effects (published in 1638). He looks through charts on how to build wings<sup>6</sup> on stage that fold and flex, along with machines that fly.

But for "disappearance"—to make worlds disappear—the author, Nicola Sabbatini, also recommends a bit of stealth: two members of the troupe should hide in the audience. At a signal, they argue loudly that the beams supporting the seats are breaking. Heads will turn, ignoring the stage. By the time the audience settles back, the seaport will have dropped in place under full cloud cover. Even the weather will have changed. The audience is "ready to admire with wonder and pleasure."<sup>7</sup>

Theatrical effects were often timed that precisely—to the second—particularly for what was called an intermezzo, essentially a fast edit. The lighting, the sound, the space itself had to be coordinated for speed. Sabbatini left instructions, detailed down to the carpentry, on "How to Make Mountains and Other Objects Rise From Under the Stage." Or "How to Transform a Man Into a Rock"; or "Make the Sea Rise, Swell, Get Tempestuous and Change Color."<sup>8</sup> We know that he borrowed these effects from outdoor events, like street floats, fireworks, carnivals, and fairs. But what else do these tell us about special effects today?

In 1645, the famous "machiniste" Giacomo Torelli, known as "the Great Sorcerer," was brought to Paris, where he staged *Orfeo* at the Palais Royal.<sup>9</sup> After that success, Torelli mounted the even grander *Andromède*, written by Corneille, who promised to write dialogue that could compete with special effects.<sup>10</sup> The machines alone cost at least 110,000 livres, a strange luxury in the midst of a civil war.<sup>11</sup>

Perhaps Cyrano joins the audience for *Orfeo*: The curtain opens ... to reveal a mountain range set against clouds. A cleft inside the mountain leads to the ocean along the back wall. Along the sides, at the wings, there are very dense forests.

Then, “by a marvelous device, the craggy outline of the massive mountain range vanishes in a twinkling,”<sup>12</sup> replaced by a piazza inside a city. Just as suddenly, the piazza “disappears ... making way for a delectable garden.” At last, the garden “turns into so many white marble vases” with jets of water morphing into jasmine, myrtle, and leading out to orange groves.

In the midst of all these, Perseus cuts off the head of the Medusa. Afterward, everything around him undergoes “a frightful transformation.” The greenery transfigures into “masses of frightful rocks.” Waves crash against the rocks—the gods’ warning, until the “sea appears so vast that one could swear vessels were floating...more than six leagues away.” Finally, the waves sink beneath the stage, along with the crags, and “give way ... to a magnificent palace.”

In 1996, I was taken behind the scenes to a theater influenced by Torelli’s system—the Drottningholm Court Theater (1766), in Stockholm.<sup>13</sup> So much has become standard since. But the speed of this “engine” surprised me. The rollers had been upgraded so that a tiny crew could manage many effects at once.<sup>14</sup> I turned a crank; suddenly the curved logs on stage roiled like the sea. Then I pulled a chain: a box of stones brought thunder. Up in the attic, wings with painted cityscapes could be rolled quickly along slots. Two sets of clouds were on hinges, ready to bring stormy weather. Modified cranes (chariots) escalated performers from floor to ceiling.

The wings and chariots resembled the machines on a sailing ship.<sup>15</sup> The rigging, the understage trap below, the fly aloft, the ropes and wood, the blocking, even the knots responded like tackling at sea. They also resembled machines on land, for public works: the hoist for scaffolding at building sites; the crane for sieges. They were machines as the emblems of power—by land and sea—but stored at the harbor’s edge. They hoisted and groaned like an imaginary ship of state, awaiting the appearance of the imaginary prince, perhaps by chariot—*deus ex machina*, to solve the conflict in the final act; to bring order.

The court meanwhile would be perched like officers on deck, practically inside the play. Their seats hovered very close to the stage itself. The wall trim at the entrance matched the trim onstage, as part of the same scripted space. The whole of it might be needed for masques of one kind or another, where the audience joined the actors for a dance. Even the proscenium operated often as special effect more than a fourth wall<sup>16</sup>—a masking and unmasking.<sup>17</sup> Beyond the curtain, false arches and blocked corners made the perspective elusive, even intimate—what I call *occluded*. The scale was smaller, more intimate than the grand opera house of 1870, small enough to allow each spectator a role

of sorts; the theater at the Tuileries (1660) “had machines so powerful that ... a hundred people were lifted at once.”<sup>18</sup>

In a Torelli theater, these machines were designed to make the spectator feel complicit in two places at once—both as audience and as stage manager. Both were possible at once, because the “engine” (the effect of all these) revealed how lavishly artificial the materials were. They were *Artifice*: lavish, immersive fakery. The Artifice “pretended” to empower the audience, while it trapped them inside a fully equipped shipwreck.<sup>19</sup>

## The Artifice Invades the Natural

These false perspectives, these facades, these arbors have another side which is cloth and nails and woods.<sup>20</sup>

—André Bazin

For many film theorists like Bazin, special effects are the hoax that makes cinema feel artificial. The audience can all but smell the effects machinery just outside the frame. In Baroque theater however, sensing the fake was considered a glory. Special effects were designed to suggest hoax; that enhanced their art. They were sculptural and painterly artifice invading the stage.

They illustrated stories about magic taking over the real world, epic metaphysical adventure more than dramatic tales.<sup>21</sup> Thus, the machinery that brought this deception was supposed to be heard groaning beneath the floorboards. It was supposed to intrude. For the story to “work,” the audience had to sense machinery offstage, what André Bazin called “erosion.”<sup>22</sup>

Of course, we could twist this argument in yet another direction. With quotes from Mikhail Bakhtin, Walter Benjamin, even Bazin, I could dress up Baroque “magic” as modernist.<sup>23</sup> Many filmmakers could be labeled as Baroque, notably Jan Svankmejer, Peter Greenaway, the Brothers Quay. However, this “electronic Baroque” and the Baroque of 1647 do not equate all that easily. Better to say that Baroque “magic” as of 1647—the occult laboratory, the tools of theatrical illusion—was never modernist, definitively not. And by that I mean Baroque ceilings, churches, and palaces as well.

In fact, after 1780, most lavish Baroque effects no longer were produced. The gaudiest of them were displaced by modernist special effects, by panoramas, vertiginous towers, industrial rides. Then after 1955, something of that occluded Baroque immersion reemerges—at theme parks, casinos, malls. But

the look and intent are still quite different. This is merely an instructive parallel.

To complicate matters even further, some very fancy Baroque effects survive after 1780, but hidden (and much diminished) at the circus or the fair (merry-go-rounds, carnies). These also reappear—on a grander scale—after 1955, at Disneyland, etc. But by that time, after many industrial cycles, they have merged with industrial methods. The Baroque comes out of hiding, but from unlikely places, with a very different message about power and the audience.

Still, we can get considerable mileage out of the parallels between the Baroque and the Modern. For example, Baroque illusions were indeed apparatus, as Baudry and Metz defined the term. They were intrusive deception. They groaned and screamed like squeaky wheels. Of course, the machine itself was often considered a magical process in 1647 (automatons, electricity). For “moments of wonder,” there was a Baroque metaphysics.<sup>24</sup> The sound of machines were presumably transcendental and hallucinatory—a special effect.

Perhaps the glow of cinema and computers are metaphysical today, but hardly for the same political purpose. Baroque special effects reenacted feudal ritual. But by 1640, feudal arrangements were in decay, after centuries of plague, continuous warfare, and shifts in economic power. Special effects were like boosterism in a town struggling to hold its own. They glorified hierarchy and fealty to the prince ferociously, because—theories of absolutism aside—this divine right was profoundly weakened (again, by religious and civil wars, economic downturns).

The modern state came out of an unsteady alliance. As part of this shaky deal, the merchant class delivered special effects on behalf of the prince. The older feudal system (circa 1200) had long since collapsed. This was an updated feudal/early-modern state. No surprise then that the special effects look dazzlingly cockeyed. The world they sponsored was awry, like the theater space turned awry in 1647. Angels drop from the ceiling; the back and side walls keep moving. What emerged was something like Surrealist sculptural spaces. But were they Surrealist? They were more like corrupt pilgrimages, before you stuffed your face at an exhaustive dinner. The service, even the elaborate sculpture on the pastries was ridiculously impeccable, like the life at Louis XIV's court by 1680.

Special effects were theatricalized parodies of feudalism, because obviously the new state was hardly feudal any longer. It was a strange hybrid: filled with grandiose furnishings, with a (feudal) theatricality, but guided by

mathematical systems (solid geometry, perspective). It was sculpture set in motion by shipbuilders' mechanics.

Most of all, this "engine"—the composite effect—only seems more "democratic." That is our historical prejudice—to look for clues to the French Revolution—not theirs. Spectators did enjoy more "mobility" than in Gothic cathedrals. But was the message more egalitarian? Decidedly and absolutely not: democracy did not float inside these special effects. There was much more promenading and posing than class conflict, an audience at war with story, with charm and fancy effects, like those machines.

The social message was unambiguous, even if the production methods were bourgeois. From the decors at the theater to the grounds around it, even down to the silk and gold insignia woven into people's waistcoats, the message was overelaborate. And this plumage—from costumes to special effects, to posing arms akimbo, proud of your station—suggested an audience at war with story itself. It amounted to a feigned aristocratic attention deficit, like an aristocratic lisp or a wan, bored look. There was virtually nothing egalitarian in poses like these, nor in scripted spaces like these. In fact, they intentionally reflected as little as possible about social change. It was a theater about adamantly not changing. The audience was supposed to look restless, because looking restless was a privilege—the joys of a rigid code, an interactive ritual about never moving socially.

Thus, Baroque artifice had to generate much more than a glimpse of the exposed nails and a corner dressing room (of what Bazin meant by "erosion"). Certainly, this artifice vaguely resembles twentieth-century installation art, especially since Duchamp, its chief pioneer, who was fascinated by Baroque special effects (by anamorphosis, geometric illusion, Baroque occult science). However, as ideology, Torelli's machines did not "speak" like Duchamp's installations. They spoke for a hierarchy and anxiety different than Duchamp's. The difference will prove crucial, as we move later on into the Electronic Baroque after 1955.

## The Book as a Special Effect

I have to clarify another parallel between Baroque in 1647 and Electronic Baroque today. This book is designed, even historically, as a Renaissance or Baroque computer. Of course, Duchamp, Lissitzky, Ernst, and hundreds of other modernists of the twenties understood the book in that way. It was a bio-

scopic indexing of data to the human voice. It was also a *pictus orbitusa*, map of the unfindable, a picaresque, as in scripted space. The Baroque book does manage to survive into modernism, as the repository of sixteenth-century software.

But what features have been salvaged from the Renaissance or Baroque book? The index in back is a search engine circa 1700. The notes are hyperlinks, as are the running heads. The contents are interface, again as of 1700. The book as Baroque machine works as “marvelously” as Torelli’s did, and is even more flexible.

The book is also a Baroque ruin, eroded by our perverse readings of the past. As a machine, it shows us how collective amnesia works, how codes become blind ritual, and then simply blindness. Or in the case of this book, how four hundred years of expensive illusion traversed from the Baroque to the Modern to the Electronic Baroque. That leaves a much simpler question than Baroque ruins then and now: does the style of this book match each stage from 1550 to 2003?

Like a special-effects machine, I will move my space from Baroque machines to special effects just before the twentieth century. Simply put, I will devote many chapters to these transitions, from 1610 to 1850 (or 1890), sections on the masque, fireworks, the misremembered Baroque in 1820, early science fiction in 1835. At the same time, I will design the text, chapter heads, and index to match the change in tone from one era to the next.

In the final sections, I shift more toward the political essay; toward cultural criticism, another shift in tone. But to provide an initial sense of what these changes in tone might say, let me jump for a few pages to a later, or a late Baroque scripted space. By the mid-eighteenth century, Baroque effects had transformed into a narrative as complete as twentieth-century cinema.

## Baroque Fatalism as Special Effect

We enter a festival in 1740, for the king of Bavaria. The famous *quadraturista*<sup>25</sup> painter Giuseppe Galli-Babiena has designed a theater set radiating with layers of occlusion, hidden arches, columns. It was as if “the drama were all but perishing, trying to find its way out from among the mazelike pillars and recesses, trying to keep in sight despite the blanket of ornateness.”<sup>26</sup> These mazes and recesses had been standardized into an alternative story. In this story, the theatrical machines were a character-animated sculpture. The force of Artifice

(the social order) invaded nature. The Bibienas (from Bologna) also had their own guild of sorts, for quadratura painting in lavish scripted spaces. Even a chiaroscuro could be added, for revenge dramas, for suspense.

A more poignant example would be the final scene of Mozart's *Don Giovanni* (1787): The statue of the Commendatore arrives for dinner. He shares a portentous duet with Don Giovanni. Afterward, the statue drags an unrepentant Don Juan into the flames of hell. It was quite a design challenge: the statue made of stone remains an immaterial ghost. It became Mozart's emblematic finale to two hundred years of Baroque special effects. After all, dragging Don Juan into hell was a familiar play; it had appeared in numerous forms before.<sup>27</sup> It was sculptural *trompe l'oeil*, the solid turned ghostly, not unlike the ghost of Hamlet's father actually returning in Goethe's *Wilhelm Meister's Apprenticeship* (1796). Finally in Mozart's version, it leaves the Baroque and enters the Gothic.

Animator Tomasz Wilitzky considers this moment in *Don Giovanni* a model for all animated cinema.<sup>28</sup> To generate that single shock, one medium has to convert into another. You must break the spell in order to cast the spell. Traditionally, in the famous production by the National Marionette Theater of Prague, a human puppeteer steps out of the shadows, grabs Giovanni's wooden hand, and takes the writhing puppet down to hell. Thus, the human comes to life by turning to stone, while the artificial marionette becomes the last refuge of nature. There lies a key to the Baroque as animated sculpture; it inverts media. It makes this inversion seem occult, on behalf of neo-feudal authority.

## The Thrill of Nearly Dying

Baroque special effects also became a laboratory on how to defend—while still presenting, with fire and brimstone—the instability of the state. We see a spectrum of ways—in masque, on church ceilings, in palaces, piazzas, and at the city gates. On the one hand, the spaces were scripted, indoors and out, to glorify the state by way of inversion, as in *trompe l'oeil*. But these inversions also borrowed, quite intentionally, from the military-industrial complex of 1600, from siege designs or the newest artillery,<sup>29</sup> to water pageants (*naumachia*) reenacting sea battles on flooded piazzas.

Baroque effects converted wartime paranoia into reassuring spectacle, by showing how glorious the merchant's war machines could be. They highlighted the merchant's role in the state, along with the prince. And they still do. Special

effects still borrow from the military-industrial complex, still show off, even adapt or help invent, the new machines of war.

Thus, there is a more melancholic meaning hidden inside Baroque play (*fêtes de joie*). They also showcased the tools of war. They reflected Benjamin's sense of allegory as ruin—but ruin with a happy ending. The groans from machines offstage were arms keeping watch, like siege machines that never slept, or water pumps draining a marsh. They were what Johann Christian Hallmann called “fatal stage property” (1682),<sup>30</sup> for laments about the missing and the lost, in *Trauerspiel*, revenge dramas, historical epics, and allegorical sexual masques. But these laments could be farces as well. Demons and gods slide from Olympus to the underworld. They were a darkly ironic joke about one's place in the social hierarchy, internally and externally, because they turned shipwreck into a pleasure. You were immersed, but never drowned, particularly in special-effects events during civil wars, famines, religious wars, literally in the midst of political madness.

It thus became typical of Baroque special effects to stage political unease, to reflect changing alliances. Torelli knew that he was essentially a house servant to the king. He knew how to alter the occlusions and displacements—the visual tricks, the erosions—to fit new alliances that came or went. Cardinal Mazarin, like his mentor Richelieu, demonized Protestant merchants. At the same time, being cynical to the core about any alliance built strictly on religious faith, Mazarin invited any merchants with enough cash, whatever their background, to become tax gatherers and local prefects that he could trust. Then he massaged Parisian merchants to ally with him against the aristocrats during the civil war (the Fronde, 1648–1652); and to help revive the divine right of kings, because it was better for business. Torelli, already too familiar with similar courtly intrigues in Italy, protected himself. He made certain that his special effects served Mazarin's pleasure, but did not anger the locals who despised Mazarin. Most of all, a gaudy, silly disaster on stage was a relief to locals caught in the middle. It deflated the terrorism sponsored by the state, as it heaved and twisted.

## Where to Sit at a Disaster

Even the design of the seats and boxes had to fit this irony about disasters looking cheerful, about uneasy alliances. For example, we enter a theater in eighteenth century Venice, where many of the new theatrical effects were per-

fected. It is owned by the Grimani family, a leading production company. Handel had worked with its librettist. Farinelli had sung there. Casanova was in the audience (his family had worked there).

We wait for the curtain. The stage looks like a fancy layer cake. Toward the wings are seven storeys of boxes or balconies, showing off Venetian worthies. Watching them is an intermezzo in itself. Many great ladies arrive in masqued costume, then reveal themselves. The boxes, practically on the stage itself, are theatrically lit from below. They generate their own audience. Some look at the worthies and sneer, or grouse out loud. However, today “the noblemen were indifferently silent; those in the boxes do not spit into the pit (the cheap seats), as they do at some plays.”<sup>31</sup> Even the audience reenacted this unease; that was part of the pleasure of the theater.

To adjust to this unease, special effects tended to move along quickly, and immersively. And Torelli clearly set the standard here, particularly after 1630, in service to Venice and Parma, even before coming to France. He relied on highly visible machines for extremely ornate and frequent scene changes, as many as thirteen in a single show.<sup>32</sup> The curtain served as his editing device, often announced by trumpets and violins.

At the opera *L'Idropica*, at Parma in 1638, he showed off—for the audience to see—three hundred stagehands. On cue, with great finesse, they ran “the huge engine, the windlass, the stout cables, the ropes and cords.”<sup>33</sup> Machines whirled by counterweight, on improved revolving drums, like indoor cable cars moving heaven and earth. The wings changed scenes so quickly, “the artifice ... was miraculous ... creating great amazement among the spectators,” particularly to see a boy of only fifteen turn the ratchet.

As one English observer said about Torelli’s productions in Venice, the natural played well against the artificial. Sets “were stately and seemed natural. The settings, above which clouds seemed to move, exactly represented houses, gardens, etc.” However, up close, another message was delivered, very clearly, about the Artifice. “These pictured scenes are very lively at a good distance by candlelight, but near at hand the work is very great and coarse.”<sup>34</sup> Note that he considers *coarse* as a kind of virtue here. In the same spirit, for the opera *Rosilena*, scene changes are “neat and artificial.”

We may have returned to something like Baroque Artifice in our theme parks and ride movies today, even in urban rehabbing. Now we have only to develop a grammar to clarify what we do. Our special-effects theory still looks a bit thin compared to manuals from 1550 and 1780, or the writings of Descartes and Leibniz on Artifice and Optics; or the masque; or “récréations d’artifices” in

Baroque science, theater, and literature. At its core, though, their grammar was simple enough: In a Baroque scripted space, the natural is invaded by the artificial. But the Artifice has its own morbid irony: *memento mori*, *vanitas*, intimations of mortality. It resembles a still-life painting (nature morte), the bloom about to fade, but artificially ripe. The flesh is overdressed, ritually overdone to celebrate the precise moment when youth begins to die. This was a grammar with a dark sense of humor, about mortality as well as political insecurity. For one moment, the Artifice defies mortality. It even defies the blinding light of God.

### Caravaggio's Blinded Saint: Dualism

It is late afternoon. We visit the church of Santa Maria del Popolo<sup>35</sup> in Rome, and gravitate toward the Cerasi Chapel, with two Caravaggios (1601)—both dark, impacted. On one, Saint Peter is pushed into a corner as he prepares to be crucified. On the other, Saint Paul has been blinded by divine light;<sup>36</sup> he lies in a heap below his massive horse. Light from the windows streams across the face of Saint Paul, matching precisely the light that Caravaggio painted. We literally sense a chill of excitement as the false and the real meet on point. Painted light mixes with natural sunlight, but so gracefully that we are awestruck.

For centuries, that kind of dualism (the false invading the natural) reappeared in theaters, sculpture, criticism, in special-effects painting. But if his “conflicted” space were a story, what is the plot? Certainly, in Caravaggio's *The Conversion of Saint Paul*, the effect of light delivers a very specific hermeneutic story indeed. Through chiaroscuro (tenebrism), vision is inverted. Flashes of light turn into blindness.<sup>37</sup> Even saints learn humility. Of course, in Caravaggio, saints lie supine like frightened stable boys, in gritty humiliation. The Artifice of God invades the natural world of the saint—as revelation. It was a very simple grammar (and hermeneutics), about the power of divine right. Even *bêtes noires* like Caravaggio enjoyed playing with it. Messages could be safely buried inside; it was not subversive. Masters of special effects were rarely called up before the Inquisition. More often they were hired to defend it.

In written descriptions at the time, almost never are these effects discussed as a mode of subversion, or intervention, as in Brecht or even Benjamin on allegory. Nor were they an early form of abstraction. (I compare these effects to the half-completed, blurred hand in a Frans Hals painting, not modernist, simply

Baroque Artifice). They were structured plot points inside a scripted space—a contrapuntal form of story (or phenomenological, allegorical story): The audience senses, as if by miracle, how the natural and the artificial merge and divide. Special effects were understood as a dialogical<sup>38</sup> grammar, not simply as isolated moments of wonder.

### Underneath Domes: Scripted and Immersive Space

By 1700, the painted dome had become a well-established grammar, a story code about personal navigation. At Baroque theaters—and even Baroque chapels—little was done to isolate the audience from the stage or chapel. Through direct address, like our televisual world, it built atmospheres for the audience to navigate personally, but in the service of the civic authority. The atmospheres were provided by a hybrid power—the prince *almost* in business, the pope *almost* in business. It was a contradiction announcing itself as an eloquent Artifice—freedom without freedom, revelation by accepting the new mercantile version of divine right.

One architectural model for this contradiction was the painted or illusionistic dome. The space underneath this dome generated walk-through stories. The various plots add up to the following: Power radiates hierarchically—and magically—from the center of the ceiling. From this center, it points toward contingent stories at the base. These jump between whimsy and majesty, with special effects along the way, where walls or sculpture seemed to melt or float as you walked along—to join, then separate. To add even more mystery, your view was often occluded by chapels and hallways, by webs of stairways and arches. These special effects often shifted as you walked, to suggest unease that is simultaneously under control. The “engine” (techniques of illusion) “proved” that despite imbalance and terrors, those in charge were calmly steering a course:

1. Directly at the center of the dome was the oculus. Like a geometric vanishing eye: the eyes of the state or of God. It was surveillance in a setting where one's identity was defined by social class above all. Changing your station in life was infinitely beyond your reach. Finally, the Artifice in charge of this order was powered by divine light. It can strike you blind to make you see.
2. Around the oculus was a thick painted ribbon, the pantocrator.<sup>39</sup> It embraced the oculus like an aureole or an eye socket; or even the balcon at the theater. Its outline closed off a higher world, where only angels and the great could ascend. It helped the oculus watch you. Like Vincent's face

in Van Gogh's self-portraits, or the eyes of the woman in the billboard, it watched you as you passed.

In turn, as in *Cyrano's* journey to the moon, the painted dome was also the sky itself—the canopy that held many microcosms. These were punctuated by a variety of optical effects, but one most of all. What looked solid dissolved into air,<sup>40</sup> a Neoplatonic illusion with seemingly infinite variety.

3. Along structures beneath the painted dome, this hierarchy continues, down to the floor, to your spot on Jacob's ladder, where you find your place. But the scripted space also invites you to move in many directions. It offers choices, but each tethered in some way to the same hierarchy, guided through Artifice (special effects) as divine right.

Thus, painted *quadratura* may falsify a flat ceiling, give it fake domes and cupolas. Then *trompe l'oeil* and anamorphosis may distort these even further. But the sum effect was proof of divine right, ontology by way of special effects. The term used the most often to defend this proof was Neoplatonic. According to Neoplatonic ideology, no matter how lustful these hoaxes appeared to be, they were not sinful, or excessive. They were, in fact, the scar left by the blinding light of God. They were chaste and hierarchical. After all, if revelation as a visual trick can feel this eloquent, what would the true immersion with God feel like? How ecstatic the final becoming, the final blindness.

It is easy to see why Lutheran and Calvinist churches avoided the full effect of Catholic immersion. Its visual message was fundamentally papal, thus seen as an aesthetics of indulgence. To many devout Protestants, these tricks reinforced a twisted logic: indulgences were suddenly chaste; rigid hierarchy was liberating. Sensual pleasure led to salvation.

Of course, Protestant austerity aside, Baroque excess has more than made a comeback recently. And so has fundamentalist disgust with it. The two seem to echo each other, like stories about 9/11 bombers doing a weekend at Las Vegas before heading out to jihad. As a moral philosophy, special effects preaches imaginary violence or imaginary excess. For example, I understand that there is a special-effects film in production about millions of people collectively faking an orgasm. It is a hollow sequel to Stanley Kubrick's intentionally hollow *Eyes Wide Shut* (1999). Kubrick spent thirty years adapting Schnitzler's 1926 novella set at carnival in Vienna 1900. Key scenes recircuit 400 years of bourgeois carnivalesque foreplay. At what should be a finale, the hero can only witness a Baroque orgy in 1999 New York. Sadeian libertines moisten each other

underneath a “floating” Baroque ceiling. And yet, not much happens, because every crime is an act of collusion, not a crime at all.

### Pozzo’s Marble Disk

In Rome, we enter the famous Church of San Ignazio, whose ceilings were painted by the Jesuit Fra Andrea Pozzo (in 1685–97). These were glory years for the Jesuit order and the Counter-Reformation. The Turks had failed to take Vienna (1683), then lost Hungary. At the same time, the Habsburgs reconquered southern Germany and Austria. In France, Protestants were suppressed, practically forced underground (1685). Meanwhile, the Jesuit presence increased throughout the courts of Europe and England, and especially in the Spanish Americas, even in China and Vietnam. The martyrdom of Jesuits in the 1630s, during the wars of the upper Rhine, had been answered.

Thus, in the major Jesuit church in Rome, Pozzo paints a “glorification,” a ceiling where the power from the heavens raised bodies and stone toward infinity. In practical terms, it looked like a vacuum effect. Paintings by Correggio a century earlier had initiated the technique: assumptions of the Virgin, of archangels, ecstatic flights. By using this technique, the altarpiece often was converted into an immersive environment, as in paintings by Cortona, or at churches by Assam in eighteenth-century Germany.

We stand under the nave painted by Pozzo: the effect is dizzying. Missionaries led by Saint Ignatius Loyola are escaping the earth. Here is what we see: first, a visual compression—foreshortened height—then evaporation. Layers of stone bring forth an enclosure twenty storeys high. It is difficult to remind yourself that these massive transepts are only painted ceiling. Beyond the imaginary stone, false clouds take the eye seemingly miles upward, toward a spin of angels, at last disappearing.

The foreshortening and distortions keep shifting as you walk. Pozzo even implies that part of the building might fall down, then seem to rebuild itself (not unlike a cinematic special effect, like buildings morphing up from nowhere in *Dark City*).<sup>41</sup> At any rate, after a few minutes, you find a spot that stops the confusion. This must be the vanishing point. You look at your feet to get your bearings. There below your shoes is a marble disk.<sup>42</sup> You are momentarily amazed. What an act of bravado: Pozzo left a marker for you. It reveals a moment of wonder basic to the political message. While you stand on that circle, the turmoil overhead is stilled. The vastness stops swimming. Instead, its disorder embraces you. The disk is a place of safety, crucial to

the immersion, to walk through scripted spaces. It reminds you of the power of the program, in this case by way of the Jesuit order. You are within the Jesuitical eye of peace. The foreground has disappeared. Whichever way you turn, the chaos (only a step away) seems to embrace you.

To manage that much precision, Pozzo applied centuries of painterly technology<sup>43</sup> based on perspective and the curved *ceiling—immersive systems*—to justify the imperialism of the Catholic Church. That is the genius of the scripted space; it is an epic narrative, where the tangible is a membrane standing in for the powerful. It is a catholicity, a hint of the immutable—but also a warning that power is out of reach.

### Cellini: Filling the Colosseum with the Devil

Immersion as vertigo also speaks to the crisis of faith, to urban legends about Lucifer trying to replace God Himself. For example, during the Renaissance, immersive tricks were often called the devil's interventions. Or treated as Christian-cabala mysticism.<sup>44</sup> Guilio Camillo designed immersion in his Memory Theater as a path where you become God, a gnostic mystery.<sup>45</sup> Often, the eloquent hoax, especially the immersive ones, fed the public's fascination—even passionate belief—in white and black magic.

In 1546, the artist Cellini meets a necromancer, a master of the dark arts. Cellini decides to assist in the witchcraft. He listens to the chanting, sets fire to devilish, rank herbs. Then the necromancer floods the Colosseum with demons, and claims that this was nothing much. For the full effect, Cellini had to return tomorrow with a young virgin. So, the next day, he drags along an unwitting twelve-year-old shop boy. But the boy's innocence does the trick. Like bait, it attracts thousands of demons, who swarm everywhere. Cellini, glorious braggart that he was, writes that he stayed calm throughout, "though I nearly dropped dead when I saw how frightened the necromancer was."

Meanwhile, "the boy had struck his head between his knees and was crying: 'I will die like this—we're all going to die!'"

"But I said to him: 'These demons are only our slaves. Consider: all you can actually see is *smoke and shadow*.'"<sup>46</sup>

"Smoke and shadow" brings to mind the simulation of war itself during the Renaissance, the siege by demons. Foreign artillery blasts a city wall. The dust makes shadows, like storm clouds. Then a necromancer copies this effect, very likely through mirrors. Demons could be projected against thick, ambient (immersive) smoke, particularly from wet shrubs that Cellini was told to keep

burning. And the shrubs made a stink that must have been inspiring. Out of fright, one of Cellini's friends 'beshits' himself; however, the smell attracts even more demons. By 1650, immersive tricks like these had become standard: projections of ghosts—smoke and mirrors, séances, particularly when fireworks displays as well as optical mechanics became more complex. Indeed Cellini had probably guessed right.

Cellini may have believed in these demons, even though he called himself a fierce agnostic. His surprising gullibility—Cellini the agnostic—tells us something about public superstitions and special effects, particularly immersion, during the age of religious wars. In 1555, an exhausted emperor, Charles V, gave up his crown for fear of his immortal soul, and holed up in prayer against the demons.

Demons were a psychogenic special effect, a collective terror in smoke. It was an immersive smoke, as in the auto-da-fé, the Inquisition, witch trials, and gruesome sieges against an Antichrist. In Spain, most of all, immersive smoke and shadows took on a pathological brutality. On December 22, 1504, in Cordoba, 107 victims were burned at the stake in an auto-da-fé.<sup>47</sup> They burned as part of a larger spectacle, with theatrical flourishes.

In 1565, at the time that Cellini was writing his *Autobiography*, the inquisitor general in Madrid (Fernando de Valdes) installed an elaborate "Theater of Heresy." He ordered inspirational plays to go with the burnings, as well as "sacred interludes on movable carts."<sup>48</sup> Later, inns at courtyards, like theaters, were built to normalize the burnings at the stake—even with playbills. In the Spanish New World, trials against demons often led to burnings in effigy as well.<sup>49</sup> The puppets, full-scale, would writhe in the smoke like living things, a pre-cinematic apocalypse if ever there was one. Some "Theaters of Heresy" even added fireworks, perhaps to help distance the viewer from the screams of the victims.

## Jacob's Ladder

At the same time, immersive techniques brought fear under control. Like Pozzo's ceiling at San Ignazio honoring the Jesuit order, the spiral upwards was a blaze of comfort, with symbolic chaos below—in theaters, public spectacles, as well as churches. Immersive ceilings were meant as a bridge between the world of the numinous and the tangible space below, *mondo simbolico*.<sup>50</sup> This bridge (*axis mundi*, Jacob's Ladder) was a political warning for those who fretted about chaos and demons, in this world and the next. We return to

Pozzo's marble "spot," where both forms of chaos could be seen momentarily in balance. A maxim near the spot reminded one observer (1740) of the following from Aristotle:<sup>51</sup>

It is easy to miss the mark, but hard to hit it.  
Thus, both excess and defect belong to same Vice, to the state that is Virtue.

Through smoke and mirrors as paint, this instability becomes essential to understanding order. The viewer steps in one direction, and the image teeters. In another direction, it reverses itself. The viewer is gripped by a mystery unveiled in multiple and single perspective—literally, "I embrace you because the world is uncertain. You are safe to move around, because you have rendered unto me. Now you are free."

### **Hold Still the Sun: Collapsing the Foreground into the Background**

Up to this point, I have only discussed the Baroque form of immersion. There is an alternative, the *panoramic*, as it appears after 1787. Let me clarify how the two differ: When a movie set is prepared for a shot, the space tends to look Baroque. The seams left by *trompe l'oeil* Artifice and mixed media stand out. But once the camera records the shot, what winds up on film may well look panoramic, a long shot ten miles deep. Certainly, Artifice disappears. The camera smooths away what was a Baroque cutout; a juggle, a feint.

Baroque Artifice tends toward balletic imbalanced space, but timed very precisely—three acts in only a few seconds, Joshua "holding still the sun."<sup>52</sup> To time that minutely, the "script" relies on majestic interruptions, *trompe l'oeil* Artifice.

By contrast, the panoramic tends toward the languorous and the picturesque. Thus nature looks endless, without Artifice. Clearly, nineteenth-century European panoramas, or American cycloramas, were immersive in an entirely different way than the Baroque, with wraparound paintings thousands of square feet in scale (very often of battles, I might add, like Gettysburg). Digital sound in stadium-seating movie theaters is immersive in both ways—Baroque and panoramic. Nineties virtual reality systems were both, helmet and all. But Vegas casino interiors do indeed suggest a return to the Baroque, with twists even *trompe l'oeil* cannot deliver.

## Fascist or Feudal Play

However, both forms of immersion (Baroque and panoramic) share one architectonic principle: *They collapse the space between the viewer and the foreground.* There is no way to step back, only to drift inside. That keeps the story inside the immersive space, where artifice and nature play themselves out. But they each have a different sensory impact. Inside the Baroque, the space beneath the dome operates like a gas prosthetically encircling your head. It inflates your vision until you go dizzy with the occlusion and spinning release. By contrast, the center of the Grand Canyon on a clear day is panoramic. The desert light distorts the bowl of the Grand Canyon like a nineteenth-century panorama, not a Baroque theatrical machine.

The closest to Baroque immersion in the Canyon may be those metal signs announcing when you have descended to a new climate zone. That becomes a map of the unfindable. You can almost smell an imaginary continent. Nature is invaded by artifice. By contrast, panoramic immersion tends toward the infinite, uninterrupted view; that is, nature without any occlusion.

The panoramic claims to be egalitarian, but can tend toward fascism. The Baroque claims to respect your unique identity, but can tend toward something like hierarchical, or transnational, feudalism. The panoramic is a metonym for the great outdoors, toward the endless potential of capitalism. The Baroque is a metonym for free choice in a secure hierarchy.

## Perspective

Thus, inside Baroque churches in Rome, nature looks miraculously artificial, hardly like a trip outdoors. Beneath the dome is Artifice, the path to God according to the Baroque Catholic Church. Paint and stucco are like transubstantiation, wine into the blood of Christ. The clouds in Pozzo's ceiling suggest cloth as the sky transubstantiated. The special effects are an intermediary, a theater of unknowing. What lies beyond this theater is God, above heaven and earth. Similarly, Pozzo's vertigo effect, the *sotto in su*, foreshortening "from below upward," is *supposed* to look like painted architecture. Its imaginary stones, imaginary perspectives, form a Catholic agency to God.

To achieve these careful visual leaps, and their politics, the Baroque master had to understand perspective profoundly well. Perspective was even championed as part of the Jesuit political message. Pozzo's manual *Prospettive de Pittori e Architetti*<sup>53</sup> served a very clear ideological function for the order. In fact, many

Jesuits specialized in the study of perspective as occult science. Perspectival research was vigorously approved by Loyola himself, featured at Jesuit colleges that produced great masters of geometry and perspective, like Honor Fabri, Francesco Grimaldi, Andrea Pozzo, Athanasius Kircher. In 1601 Matteo Ricci brings Jesuit systems of perspective and illusion to China, calling them “even greater than the Bible” because they showed potential converts “what words alone could not convey.”<sup>54</sup>

## The Missionary’s Universe

Returning to Fra Pozzo, like many Jesuit natural scientists, he was revealing the Ptolemaic universe, but geometrically. He would show the earth at its center. To arrange this, he worked with a candle from the floor, to stretch a grid as in a map. It projected shadows on to the ceiling that helped him adjust his grid to how the eye distorts. Within this grid were vanishing points, to position the viewer inside a geocentric truth. Like astronomy for Christ, instead of a telescope to see the heavens, Pozzo built a spiral into the void: signified by the marble disk. Even his use of the candle was symbolically appropriate. The candle signified preaching by showing: the Catholic earth mathematically standing in as the sun (the Light).

Thus, immersion also suggested missionary faith. From astronomy to architecture, the magical mathematics of commerce were joined to the missionary work of the Counter-Reformation. Immersive ceilings helped to prove that Ptolemy and Ignatius belonged together, that science was the word of God. And at the same time, there was a price for this truth. By revealing through special effects how inscrutable God was, believers were reminded that prayer alone was not enough. No path to God was direct. The Protestants were wrong. The Fall could not be redeemed purely by faith.

Not surprisingly then, as hinted at earlier, Baroque churches in Protestant cities look much less flamboyant than those in Italy, Vienna, or Munich. Christopher Wren’s *St. Paul’s Cathedral* (1671) has considerably less of the trickery or the immersion—*trompe l’oeil*, accelerated perspective, *quadratura*. The ideology of the Anglican Church disavowed flamboyant effects, coded as Italian, therefore a popish intervention. However, Bolognese “squaring of the round” ceiling paintings (*quadratura*) were fine for *personal* residences, even for the court; as were secular Venetian “machines” for theaters in England, northern Germany, Scandinavia. But in Italy, Baroque theatricality was often

wedded to the Counter-Reformation as a filter (*axis mundi*), a cathexis between this world and the next.

### Clouds as Thick as Cotton

Even urban planning in Baroque Rome relied increasingly on many of the same effects, particularly after 1585 with the rebuilding campaign. To frame these enhanced piazzas and churches, many wider business roads were added during (and after) the reforms of Sixtus V (1585–90). However, this systemic network points toward the panoramic as much as the Baroque, toward deep focus as circulation as much as special-effects theater. Perhaps as city planning, Baroque effects were simply modernizations (the same could be said of eighteenth-century Paris or Vienna). They gave medieval facades a “modern” face. This implied that feudal remnants could be given new life, that divine right was open for business. There probably never was a purely Baroque moment for city planning, only the uneasy, eccentric pressures of modernization.

By contrast, at the church Il Gesu,<sup>55</sup> the ceiling frescoes painted by Giovanni Battista Gaulli (1685)<sup>56</sup> seem choked with clouds, like the dust made by horses in a Kurosawa fight scene. These clouds, as solid as thick cotton, reverse gravity. They spin the Chosen upward as if through an inverted drain, toward the cupola lantern, which stands in for God’s nature. It is the genius of Artifice once again. Compare this to 3-D in cinema, very much a panoramic form of immersion. Here, 3-D runs second to the fact of carpentry as special effect. The media are mixed very directly: paint, stone, stucco, cloth. And they cannot be witnessed by just sitting, simply as immersion. They require walking.

Through Artifice, their illusions change every few feet.

Some effects are fixed-point, optical tricks, or sculptural irony framed inside a chapel. Others are multiple-point, relying on solid geometry and immersion—many angles at once. Below the oculus, under a lantern or a cupola, the effects stop. Then one starts again, navigating from one crease (fold) in a microcosmos to another, one hierarchical fantasy to another. With that in mind, we lose another day strolling inside the labyrinth of churches in Rome. It is ironic to imagine these as more “democratic,” and yet obsessively in support of feudal hierarchy. Shall we call them an interactive pilgrimage about dispensing with free will? The freedom to believe in papal omnipotence?

It is an allegorical “freedom to move.” It points toward the political economy in Italy, to the mercantile city rebuilding the medieval church. The glories of perspective become an ecstatic pilgrimage. The Renaissance, in this sense,

was “postmodern.” Byzantine and Romanesque styles were appropriated (misremembered) into a new “script,” honoring the “freedom” to wander a bit more inside an immersive space. It was obviously a rebuttal of the popularism of the Protestant heresies. There was only the tangible path to God. What a vast ideological fantasy had to float inside the skin of these domes. No wonder they were so lavishly detailed. They were a disappearing *labyrinth*, as we will discover farther on.



## 2. Perspective Awry

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Every mind is omniscient but confused.  
–Leibniz<sup>1</sup>

In 1582, the Jesuit scholar and diplomat Matteo Ricci enters China to preach perspective (and the faith). The mathematics of perspective, he explained, lifts and moves all things within the kingdom. It drains marshes, discovers the hidden curves of the earth, “all laid down in miniature.”<sup>2</sup> Of course, he knew that perspective was an antique system, familiar to the Chinese. It had evolved, or been lost and recovered often over the past 4,000 years. Greeks and Romans, even Egyptians, understood some first principles: how to draw in deep focus, and its geometric applications to astronomy, catapults, trajectories of all kinds.

But this version of perspective had a much grander mission. Its new mathematics had begun almost a hundred years before, by the late fifteenth century in western Europe. Right angles (axonometrics and logarithms) could reveal orthogonal vanishing points. These points revealed further secrets, far beyond Brunelleschi’s designs for Florence after 1418. These secrets were inside engineering sketches left by Brunelleschi and hundreds of other artists—of war machines and water pumps and eccentric geometric phantasmagoria. The new mathematics computed much more solidity, angles of light, picture planes, points of projection.<sup>3</sup>

By 1550, this data had become essential for war (artillery, siege machines), as well as architecture, urban planning (evident in the redesign of Rome after 1585). The data made it possible to sail along the coast of Africa, or across the Atlantic, or more directly to China. From the arcane to the mundane, its geometries were renowned in early science, in architectural design—and all sorts of hauling, winching, lifting. Then, as thousands of museums bear witness today, hundreds of painters were trained in perspective to work for the church, and as theatrical architects and court engineers.

Finally, this new mathematics directly transformed special effects. Its crisp geometries were turned “awry.” Perspective was increasingly accelerated, occluded, or inverted as *trompe l’oeil* or anamorphosis. Then its tricks were applied to storytelling, most often highly politically charged stories about the glory of the new mercantile state. The German effects master Joseph Furtenbach describes Jonah and five manners in “a tremendous terrifying storm.”<sup>4</sup> The storm literally reeled mechanically, under terrifying lightning and thunder. Jonah and his company cried out to heaven without answer. “Such a sight made the hair of the spectators stand on end and brought tears to their eyes.”<sup>5</sup> Then a whale rose from the waters and “snapped up Jonah.” But once inside the whale’s stomach, “the sea became quiet and calm.”<sup>6</sup> The machinery matched by the mariner’s perspective awry had made peace.

These immersive nightmares reflected very unsteady alliances between the prince and the merchant class, let us say occluded and distorted alliances. Like a treaty with an unsteady future, perspective awry often glorified anxiety. And this anxiety revealed the substance of God Himself, what historian Jose Maravall calls the relativism that began to hover about Baroque consciousness.<sup>7</sup>

Ricci was loath to mention this anxiety. He concentrated more on its comforts. Perspective awry specialized in staging the shipwrecked state, or the destabilized universe; then suddenly bringing it to order. Through tricks and pauses, entire worlds could be slid into place, swung from chaos to order, from tempests to harbor scenes. As one Spanish bishop explained, drawings with perspective awry could be disturbing. The same lines transformed a “flowering garden” into a “stormy sea,” animated a face from anger to love. Saint Francis suddenly turned into a woman, a Magdalene. Nevertheless, like Ricci, this bishop, Alvaro Mendoza, approved of perspective turned awry. It revealed the spark of divine essence, of the true substance. It was the echo of great power.

Inside these unstable worlds, imaginary political traumas could be reenacted, very operatically, as special effects. Devils might drop from the ceiling, or be wheeled from the basement: goblins, fuming sea monsters; facing bands of angels, even armadas with hundreds of cannon. Within disasters, the miracle of cartography—the new mathematics—saved the day. It peeled the curve of the earth on to a single sheet, from flat to curve, and curve to flat. It navigated you visually into impossibly deep focus, literally to *terra incognita*, where the monsters could be vanquished.

Thus, Perspective Awry as a form of story honored a partnership that was crucial to the early modern state, where commerce sponsored what little remained of feudal authority inside the newly minted princely state. Like the-

atrical machines, perspective awry symbolized shipping as the friend of the prince, as accepting a neo-feudal sponsor order. The new geometry sailed a course through blind waters, a sailors' quadrant. It hoisted scenes like cranes for building. As urban planning, it added a Baroque theatricality to the large plaza—a shepherd's eyes leading into occluded, narrow streets.

Thus, perspective was turned awry *not* to be subversive. This is not a modernist avant-garde, a Baroque Futurism, Duchamp, Cubism, Surrealism. It stood too close to the prince for that; it was more like a courtly theology. Perspective awry took the viewer on a scripted pilgrimage, led by church and the prince, with cues provided by merchant engineering. Thus, perspective awry could be a backhanded proof of God's existence. Its illusions were often justified as Neoplatonic: they showed the viewer man's feeble attempts at mapping the unknowable. When the sky was askew on a ceiling, it operated like an animatic, a five-minute stroll toward revelation, from pride to humility, from hubris to prayer.

For artists, this special-effects theology proved a way around censorship.

After 1560, when Humanists went on trial under the Counter-Reformation, technology and revealed truth were required to not be in conflict. But as it turned out, the holy fathers liked special effects (far more than Galileo). They approved of perspective awry as occult science, a Catholic mix of applied science with revealed truth. These gaudy entertainments suited the gaudy occlusions, the strange alliances during the religious wars after 1560. It was a phantasmic materialism on behalf of a shady truth. In Neoplatonic theological terms, you could also call it an immaterial truth. One fact was certain: during an era of nearly continuous war and economic tragedy, power seemed almost unsustainable except as special effects. Thus, to keep pace, these effects grew in scale after 1600, like disaster films adding more explosions year by year, just to compete. They were simply realizing the geometries of perspective on paper (stereo-metrics), and designing machines to make these solid, much the way digital architecture has brought new building materials into the world today. But instead of digital zeroes to ones, perspective went from geometric squares to curves. The challenge since Brunelleschi had been the square underneath the dome.

Finally, by 1700, the system was fixed. Thereafter, training in special effects stayed relatively unchanged for another eighty years. The apprenticeship was simplified, geometrically speaking. One had to tie the square room underneath a circular dome. Real or imaginary attachments were painted or sculpted, in the edges between wall and ceiling, from corbeled arches to trumpeted trian-

gles.<sup>8</sup> A team of masters (painters, engineers, mathematical designers, stuccoists, sculptors) could render any curved surface—no matter how fantastical—on to a flat plane (*quadratura*). From there, they could play tricks, even make straight and curved seem to change places. The basic rules amounted to a kind of Baroque animated cinema. Sculptural images seemed to bounce, whirl, float.

It was also animated sculpture for ephemeral architecture of all kinds, from fairs to fireworks. Also, various moments indoors or out were reserved purely as mechanical moments of wonder, as an intermezzo, or a Glory. In all of these, distances presumably took wing as literally, as materially, as possible, to “show antique grandeur under the illusory form of marble paint.”<sup>9</sup> Metaphors about the inanimate truth were animated, and made solid. And from there, scale models of the universe were animated as well.

By 1600, perspective had indeed become a moral philosophy. It “said” that materiality in the universe was magical, and governed by the immaterial, by mathematics. One can easily see how close this mathematical god was to nascent materialism and then to the Enlightenment. But Baroque philosophy (at least where it crossed special effects) often flirted with a very secular materialism for centuries, with perspective as the math that proved God—and not just ontologically but teleologically as well. It also flirted with the sense of the bourgeois craftsman/engineer as a naive philosopher (something we usually associate with the Enlightenment). For example, the itinerant theatergoer John Evelyn has a strange description of Bernini (1644), as a special-effects one-man show: “a Florentine sculptor, architect, painter and poet, who, a little before my coming to the city, gave a public opera (for so they call shows of that kind) wherein he painted the scenes, cut the statues, invented the engines, compos’d the music, wrote the comedy, and built the theater.”<sup>10</sup> Quite simply, by 1640, perspective had evolved into a universe built with metaphors.

Clearly many poets found these metaphors invaluable, particularly Milton in his images of a “pendant world...hanging in a golden chain,” or his Lucifer “chain’d to a Burning Lake.”<sup>11</sup> On the stage, this animated universe tended to be called a microcosmos, like a machine for revelation (close to Leibniz’s monad). But engravings of these special-effects worlds feature one magical experience regularly: the delicate hurricane, where stormy weather rolls in toward the audience. If perspective implied the mind of God, then dark theatrical weather was the brow of God—the test of man, literally and brilliantly turned awry.

Of course, epic landscapes blowing up a storm were not, in themselves, enough to tell a story. Along with the immersion, breaks and skews were

needed, special effects as subplots and incidents. These incidents were staged like shocks interrupting a pilgrimage, in theaters, palaces, churches. They leaped at you from an immersive ceiling, in accelerated perspective (a cognate to the quick change in theater). The surprises hung like bats from eccentric arches, or twisted grotesquely into story niches. On the ceiling, stucco horses seemed to be struggling in the mud, about to launch on top of you.

Effects like these increased particularly after 1610, as Baroque storytelling became the fashion, in Catholic and Protestant countries alike. More breaks and skews were added, more layers, more maddening niches and sculptural surprises, perhaps in the spirit of embattled uncertainty during the Thirty Years' War. But however epic the disasters, the prince, the church, or the merchant had to be glorified (let us say, the clients paying for all this). Somewhere the story had to achieve a clever political balance. That was the trick of it, to turn disaster into comfort.

As political theory, Hobbes's rueful Leviathan was self-consciously identifying perspective awry as the war of all against all—on the path to the social contract. In plays, perspective awry illustrated war inside the psyche, as in Calderon's manic-depressive Sigismundo, his memory boiling with confusion, one giant monologue following another. He agonizes, pauses when he should act, as if waiting for a ceiling to collapse on top of him.

To make perspective awry work as plot points on the wall, a precise accelerator and brake were needed. That meant two contrary systems of illusion in the same scripted space. Each had to play against the other, like an angry couple who never should have gotten married. One system wants out; it emphasizes wandering. The other gets lost in ironic self-pity, in pauses. Both rely upon old tricks, dusted up for very expensive scripted spaces.

### **Wandering (Immersion): Multiplied Views Under a Curved Ceiling**

The spectator walks underneath a painted, sculpted ceiling. It turns from flat into a curve, then into a dome. These tricks encourage navigation, work well with accelerated perspectives and an immersive bowl. Attached to the bowl are tapered links<sup>12</sup> that seem to hold up the air itself. But these trumpet shapes are also coils that lead you to surrounding rooms, toward erratic bends farther off. Like the legs of a great spider, these bends and coils branch into smaller spiders, more arches. The effect can be unsteady, but dazzling. From one angle, a wall overcrowded with sculpture appears to collapse; then two steps away, thanks to perspective awry, the wall stands straight.

Once again, that key trick rematerializes: to animate from crooked to straight and back again, one of the first rules of special effects. First the wall looks compressed, then it is made to spring back. Up close, it may look surprisingly crooked again. At a distance, it (pardon the expression, with all its silly entendres) stands straight. As in carnivals or holiday fairs, the world was turned upside down. The building itself seemed to lose its footing, to stand on its head. But this remained basic to the special-effects narrative for centuries. Sight lines made of stone were supposed to animate magically, while you navigated beneath them by foot, to pause at a chapel or a corner that has been carefully scripted.

### Pausing: Single View Framed

In churches relying on Baroque effects, chapels were pauses. Instead of vast immersive tricks, they relied on framing devices to hold you. In Holland, this chapel effect might be shrunken into buildings small enough to slip in your pocket, or perhaps two feet high, inside a peep-show box by Samuel Van Hoogstraten (1660s)<sup>13</sup>. Hoogstraten wrote about perspective, taught, produced oil paintings, but his boxes are a kind of compendium of all of these, the Baroque equivalent of the medieval miniature—a showcase for existing technologies of illusion.

Inside a translucent window, we see “artful deceptions,” a complete world only three feet deep.<sup>14</sup> A network of tiny rooms seems to project like the camera obscura, but in stereoptic solidity. Intimate window lighting suggest Dutch genre painting, the Vermeer interior (or even the interior glow of Rembrandt, who was Hoogstraten’s teacher). The viewing hole itself is crafted like an optical precision tool, a Dutch specialty, as in microscopes, or even the camera lucida: an eyepiece that allowed artists to watch the sitter—in perspective—while drawing. It is an orderly house for a small country, to be kept on a table inside a burgher’s domestic world.

The path the eye takes clearly refers to cinema before the fact, cinema as vision without film, through a chamber of miniature rooms that mobilizes the line of sight. Thus, Hoogstraten’s “camera” directs a movie miniature.

In 1660, the camera eye often referred to memory—to souvenirs as sites of play, like a dollhouse. The camera or chamber took the eye past the boundaries of life into death. We know that Hoogstraten was fascinated by candlelight shadow shows,<sup>15</sup> and that he described *memento mori* (“Remember you must die”) on the arch of one of his miniatures.<sup>16</sup> These boxes point towards two uses

of the miniature later on, as shadowboxes, notably in Joseph Cornell's boxes (ca.1950) or as movable books after 1740 (i.e., Engelbrecht books). Or they suggest optical immersion inside of an eyepiece, the microcosm guarded by the intimacy of the camera lens, from microscopes to binoculars to stereoptical toys.

“Camera” as miniature peep show means for your eyes only. Its chambers became intimate cinema. They are also optical folklore, fetishes for what Virilio has called the vision machine: the prosthetic devices that put a lens between you and the physical world. (Again, *machina* implied artifice invading nature in the Renaissance and Baroque eras.) Thus, these peep shows reveal how optical machines interfere with our vision, to reveal our vanity (*vanitas*).

Inside one of Hoogstrater's boxes, four well-appointed rooms lead toward the back yard and beyond, particularly the church steeple across the way.<sup>17</sup> Since cinema also implies voyeurism, we are greeted by a dog staring back at us, precisely at the wooden joint where the box separates the entryway (foreground) from the rest of the house. It is like a tracking shot, with cables taped on the floor. Again, these *camera* miniatures clearly suggest cinema without film, probably more directly than Baroque architecture. For a time, two disparate systems—Baroque perspective and optics—meet in a box.

By the nineteenth century these two are joined in movable books, and in optical toys like the praxinoscope and zooetrope. Finally, the magic lantern industry overwhelmed both of these. Then after 1893, photographs, as well as animation in vaudeville and toys, and most of all magic lanterns (for lectures and theaters) merged into one novelty—given persistence of vision by Edison. But they are merged first in miniature, as Edison's peep show. Then, to compete with the magic lantern industry, and to fit into music halls and fairs, the Lumières find a way to project movies on to rather small screens, carefully framed, like wood panels at a café—very mobile, simple to operate.

## Drifting or Pausing

This brings us to a standard way of classifying the difference between multiple perspective and fixed-point perspective:

- Multiple Perspective – Fixed Perspective
- Immersion – Framed (chapel effect)
- Painted ceilings – Peep shows

- Perspective awry – Optics (magic lantern)
- Trompe l'oeil – Anamorphosis
- Panoramas – Framed monitors, screens
- No foreground – In front of foreground

Essentially, both have returned since 1955 to haunt us, from casinos to urban plans to computers to maps of our unconscious and imaginaries about cyborgs and robots. There is great uncertainty, however, as to which of the two gave birth to cinema—the panoramic or the framing effect. Very early films (before 1904) look more like glowing chapels than panoramas. At first, on tiny screens isolated from their surrounding, movies emphasized intimacy in a theater; that is, keeping the audience out of the foreground. They resembled Baroque tricks without Baroque immersion. I will review all this later on (in this volume and the next), as encyclopedic trick newsreels and documentaries and the armchair tourist, and imperialist travel phantasmagoria on film.

For the moment, I can say that the collision between the immersive architectural space and the framing miniature effect remains essential to the history of cinema, and to all media—a very eccentric paradox. For example, the computer monitor seems to return to Baroque *camera*—to Hoogstraten's boxes—to the movie as fixed perspective, a chamber for your eyes only. At the same time, the future of digital editing lies in greater and greater architectural immersion.

Of course, many media blend both categories. The automobile suggests endless circulation in an immersive field, but seen through a highly framed glass shield. And to confuse matters even more, the terms *diorama* (framed) and *panorama* (endless view) were used interchangeably in the nineteenth century. Then there is the matter of stereoptics and 3-D immersion, often in frames. And of course, sound is also both immersive and framed. But I much prefer contradictions to charts and laundry lists. Both immersive and enframed, special effects domesticate your worst nightmare, or complicate your fondest desire. They are unlikely companions, like good friends who terrify you at night, but seem your last best hope in the morning.

What's worse, some media survived from the Middle Ages into the Baroque, and look even more cinematic than the Baroque itself—like the Neapolitan nativity scene (1620) I saw in Rome, at the church of Santa Maria in Via.<sup>18</sup> It stands twenty feet wide, eight feet deep, with thousands of fitted pieces, tiny people, and furnishings. It is called a *presepe* (crib, crèche)—this one was designed by a Nicola Maciarello in 1620. The effect profoundly resembles a movie miniature, backlit for dusk. It even takes advantage of the

flickering light of candles for its “movie,” to guide your eyes through dramas inside the city of Naples. You peek into windows, along streets, catch young men ogling local ladies, and wind up at the Sea of Naples. It was as if Caligari went to the City of Lost Children, and wound up in Naples, a warning to never oversimplify the history of visual media.

Better to discuss all visual media as innately cinematic: the desire to animate what cannot move remains constant to every era, certainly since 1550. Thus, all visual media (theater, engineering, architecture, sculpture) animate stillness, turn perspective awry. And to some degree, all visual media become instruments of control because they are entertainment, thus comforting. As a result, almost all visual media monumentalize technology through wonder, through special effects; and these effects speak for authority about power. To what degree they do, and for what system of control—that remains for discussion.

By 1620, technology to support a kind of “cinema” was in place: much finer lenses; theatrical lighting; mirrored projectors to bounce an image from place to place; manuals on geometric systems, from math to mapmaking, to building “chariots” for actors to ascend or descend. Camera” then amounted to a “cinematic” room. The room ran movies of a kind. The movies relied on convergence. Optical, sculptural, and theatrical illusions were squeezed inside the same space. To exploit this visual chatter, their perspective was skewed, turned awry. Here, two “tricks” were crucial, from the sixteenth century forward—and are still actively used in media effects today.

## Trompe L’Oeil<sup>9</sup>

In 1754, at his *residenz*, the Prince Bishop of Würzburg greets people asking for things (suppliants). He stares down from the top of his grand staircase. Around the suppliants are Tiepolo’s immersive paintings of the four continents (four corners as the mercantile points of the compass). The continents absorb five thousand square feet of fresco, painted by Tiepolo and his team of *quadra-turistas*, completed in November of 1753. Each continent operates as if hanging on a chain in a Ptolemaic universe; the staircase is the centrifugal center, with at least ten different panoramas along the way. It bows outward like a seascape, designed by the architect Balthasar Neumann in 1719. Details within the fresco create wonder by mixing media with stucco and statuary by Antonio Bossi (trompe l’oeil).

The scripting of power is evident. Every step up the stairway reminds the suppliant to show humility. Lamps at the banister are held by cherubim peering around each base. Of the four continents on the ceiling, suppliants get to see only America first, the place where the most risk and the most humility is required. Humbled within the painting itself, an artist is practically groveling. And to his left, directly above the staircase, a frightened foreigner tries to hide from cannibals among American savages.

By contrast, the Prince Bishop, of the great Schonbrunn family, sees Europe from a feudal landlord's eye view. His script shows him in charge. He sees his peers painted and sculpted across the room. There is a hunt, symbolic of feudal privilege. Against the fresco, the statue of a hunting dog rests beside a statue of a liege lord who resembles the prince bishop himself. Dog and master catch the imaginary late-afternoon light at the ledge of the ceiling, right below the fresco of Europa (dressed in more *trompe l'oeil*).

The ceiling leaves essentially no angle without animation (usually *trompe l'oeil*) as you walk up the stairs. Up the staircase, every step seems to reveal more plot points, a gravitas of four continents, one for each wall. The four points of navigation allowed for massive ledges and corners, mixed media, accelerated perspective. Every wing of the *residenza* was supposed to be visible from the landing, a centrifugal hierarchical arrangement, masterfully designed by Balthasar Neumann. If suppliants were permitted to rise anywhere near this landing, they might turn to marvel at the allegories that surrounded them: the "four" continents painted on the ceilings (Tiepolo),<sup>20</sup> and each with *trompe l'oeil* figures attached to the painting—a giant's leg, a huntsman and dog. In the imperial hail (reserved for the emperor himself), Apollo's chariot literally dangles from a painting in the sky (*trompe l'oeil*). Similarly, along the molding, dozens of statues burst from the walls. At the windows, the drapery holding the cherubim transforms into cloth and then into stucco (by the master Antonio Bossi).

My Vegas research conflated with the Baroque here. As awestruck as I was at Würzburg, when I walked into the imperial apartments, past the carved toilet—where the Prince Bishop, protected by his long robes, permitted suppliants to watch while he officially moved his bowels—I had to laugh. I was reminded of Louis XIV with his forked chair. Men paid serious cash to carry the sun king's toilet, to be near his business in the morning.<sup>21</sup> The prince bishop was making an absolutist and (absurdist) statement. Then I winced at the gaudy, eerie spectacle of the mirror cabinet, wall to wall with gold and

mirrored eye candy, and heard myself mumble: “Liberace could have died here.”

I recognized, of course, that the sheer scale, the poignant crafts, the majesty indicated a world treasure, even mandated by the United Nations. I had studied the *residenza* for over twenty years, knew about the architect Balthasar Neumann’s youthful enthusiasms, his brave rejection of Hildebrandt, the “insouciance” of his entryway.

However, I also knew that this precise Tiepolo blue had been copied essentially for the ceiling at the Caesar’s World Mall in Las Vegas—the sky that went a full day every three hours (eight sunsets a day). I knew that this immersive sky would be repeated in ceilings at the Bellagio, and the Venetian next—the same blue, a cross between a robin’s egg and a showgirl’s eyes. Indeed, false Italian blue sky (over a nonexistent Mediterranean harbor), the symbol of high rollers, will grace Vegas for decades, just it had spread by 1740 all the way to the sleet and gray in central Germany. Of course, designers at Vegas rarely even approach the narrative genius that centuries had brought to *trompe l’oeil* long before 1753 in Europe.

As Baudrillard wrote in 1988: “(With) *trompe l’oeil*, whether a mirror or painting, we are bewitched by the spell of the missing dimension. It is the latter that establishes the space of seduction and becomes a source of vertigo.”<sup>22</sup>

*Trompe l’oeil* is a highly compressed story, what I call three acts in a few seconds:

- Act I: hyperreal first reading of the image;
- Act II: dissolve of the image into a fractal of many surfaces, called the “moment of wonder”;
- Act III: rumination afterward, leading to “revelation,” as in faith at the end of a pilgrimage.

Speaking of the Vatican (or Würzburg) to Vegas: The architect Jon Jerde told me in 1998 that he had decided to model the Fremont Street Experience in downtown Vegas on Baroque *trompe l’oeil* he had just seen in Italy, but “it was just too expensive.” So he went with video instead.

Transformational decors, painted skies, all kinds of *trompe l’oeil*...adorn the walls; the monad has furniture and objects only in *trompe l’oeil*.  
—Gilles Deleuze<sup>23</sup>

*Anamorphosis*: A stain in the corner of a painting transforms when you shift position, as in Holbein's *The Ambassadors* (1531). Lacan spoke at length about this painting,<sup>24</sup> brought the term *anamorphosis* into psychoanalytical discourse. As he stood before the painting, Lacan noticed a unique moment. The stain toward the bottom looked impenetrable. It suggested that the "gaze"—the feeling that you are inside someone else's vision—had shut down. You realize that you have gone unnoticed. You were not trapped in someone's scopic field. As a result, you are driven irresistibly ("pulsion") to keep checking if the gaze has spotted you. Your desire has been heightened, nakedly revealed. This moment has been called "the elision of desire,"<sup>25</sup> and applied in literary theory, throughout the humanities. Ambiguity heightens desire, even while it erases identity. However, Lacan never spoke as an art historian, about what anamorphosis meant in painting and architecture during the Renaissance. His definition was quite different, almost the reverse. As Lacanian theorist Slavoj Žižek writes, "the moment of anamorphosis is a 'phallic' spot that 'does not fit,' that sticks out from the idyllic surface scene and denatures it." It is "erected," makes details around it look "suspicious," like Hitchcock's double meanings in *The Foreign Correspondent*, or *The Man Who Knew Too Much*.<sup>26</sup> That is a long way from our original.

Forearmed, we return to the painting. From a position straight ahead, the stain looks intransigent. It simply will not respond to any visual code. Then we peek obliquely from the side of the canvas. Recently, a peep hole, lost for centuries, was reattached to the frame, as in 1531. From that fixed-point perspective, the stain "animates" into a skull.

Of course, from 1500 to 1800, anamorphosis in all forms flourished both large and small, as architecture, woodcut, decors, tabletop novelty Leonardo mentions it, both as painting and spatial construction.<sup>27</sup> In Pozzo's painted Dome of the Church of San Ignazio (1685), the journey with Saint Ignatius to God seems to spin upward for hundreds of miles. In woodcuts (like those of the sixteenth-century German master, Schön), the mystery could practically be slipped into your pocket.

Anamorphosis could be a supernatural pilgrimage as well, in manuals by Pozzo, and by Nicéron (1638), "curious perspective or artificial magic marvelous effects."<sup>28</sup> An eyepiece from 1582 slowly reveals the face of Christ, as if this tube of brass were a Protestant liturgy delivering salvation.<sup>29</sup> That same image of the mystified observer reappears four hundred years later in a film by the Brothers Quay, *De Artificiali Perspectiva, or Anamorphosis* (1991); in fact, in practically all their films, including their feature *Institute Benjamenta* (1996).

Anamorphosis is also three acts in a few seconds, a quick pilgrimage from chaos to the moment of wonder (to see the chaos animating to life), which brings revelation. But more importantly, it is the interruption of vision, the staging of aporia, to be on a road that is unknown to you, in a space that is chaotic until the apparatus is set in place.

## Political Anamorphosis: News From 2010

Special effects as staged chaos (anamorphic media) warn about apocalyptic risks to come, while at the same time making these threats easy on the eye. It prepares us and disarms us. It gives us the illusion that we have control over our entertainment, while it encourages us to give up control, settle back and take it. It suggests power dressed as innocent fun.

Of course, what if special effects join presidential politics? “Innocent fun” as staged chaos gave us a president by April 2003 who was a Baroque monarch as haughtily ignorant of the world outside as a Habsburg king during the Thirty Years’ War. Of course, the extraordinary surprises after 2004 shifted our direction. However, one matter remained quite plain until 2010. The widening Baroque class distinctions continued. That anamorphic skewing seemed impossible to stop.

Also, special effects remained one of the most over-hyped subjects in our culture. But they were glamorized in much the same way five hundred years ago. It was no secret that our culture was being wallpapered and seduced by special effects, from the president’s office down. However, the simple mechanics of that seduction, the practical tools, were studied more rigorously; and a new poetics built step by step—a new modernism, not a late postmodernism.

Clearly, a Baudrillardian mood of negation was precisely what the designers of special effects *wanted*; it was hardly subversive by any means. The audience was supposed to appreciate perspective awry; this obvious replacement of nature; the seduction, the noir cleverness.<sup>30</sup> Like anamorphosis, the boundary between “real” and artificial was not so much dissolved as left even more noticeable.

## **What Comes Next**

In chapters to follow, we enter the labyrinths of Versailles and the Sim games; then the strange decay of the Baroque during the age of automata, and the occult laboratory. Finally we enter limelight and steam-driven automobiles in 1829; and conclude with the birth of science fiction, by telescope and balloon, in 1838. The Baroque special effect promises eloquent hoaxes.

### 3. Masques

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#### Background

English masques, or costume balls as theater, date back to the fourteenth century, but evolved mostly after 1510 or so, since Henry VIII and Elizabeth I both enjoyed dancing (Henry even wrote music for masques). However, Tudor masques remained seductive diversions without fancy machines, more like days on the calendar, to commemorate a wedding or Christmas.

Not until the engines from Italy were added do we have anything that required elaborate playwriting or architecture. After 1570, Italian ‘houses’ or scenes were gradually adopted by the Office of Revels,<sup>1</sup> particularly after the Teatro Olimpico opened in Vicenza in 1585. Then Inigo Jones essentially brought the full machinery to the English stage after 1605. These included “turning” scenes on a revolving stage (*machina versatilis*), and painted plaster flats that moved on grooves (wings), mobile sound effects, thunder and lightning, more advanced chariots on wheels, many devices that flew, and, most of all, accelerated perspective.

Then in 1605,<sup>2</sup> Ben Jonson wrote the first of twenty-one masques for the court, *The Masque of Blacknesse*.<sup>3</sup> By 1618,<sup>4</sup> the form was set. The comic anti-masque came first, as in antic, burlesque, grotesque, witcheries. Then the more sober, courtly masque took over—revels in song, with three dances and very lavish theatrical machines.

To keep the pacing brisk but dense, Jonson all but mashed his allegories. Cherubim, pygmies, Amazons, gypsies rubbed shoulders with Venus, Mercury Cupid, Hercules, Silenus, Juno; while Opinion, Merefool, Fame, or Golden Age would philosophize (“opine”). By all accounts, the effect was dazzling, an homage to perspective awry and to the throne. “Gaze upon them, as on the offspring of Ptolemy.”<sup>5</sup>

Clear Truth anon shall strip thee to the heart, and  
show how mere fantastical thou art.<sup>6</sup>

By all reports, the performances were full-throated, often at full throttle. Verses ranged from magisterial to bawdy (the king liked bawdy)<sup>7</sup>. But the sum had to promise a happy future for the court. At key scenes, the courtiers and their decorous women were invited to make a gaudy fuss.<sup>8</sup> Perhaps the gaudiest was the wedding masque *Hymenaei* (1606),<sup>9</sup> with its animated effects, its “region of fire ... whirl(ing),”<sup>10</sup> but most of all its spinning globe on a revolving stage, a “microcosmos”<sup>11</sup> with continents in gold, and seas “heightened” by “silver waves.” Inside the globe were eight members of the court, dressed as “the four humors and four affections.” Along with musicians, they “danced out on the stage.” Or should I say pranced and fawned? There is no record of how gracefully the courtiers moved that night; only how graceful they thought they were.<sup>12</sup> They fluttered under the “sunlike” gaze of King James,<sup>13</sup> who was so clumsy he never danced at all.

## From Innocence to Murder

*Hymenaei* celebrated what became the tragic dynastic marriage of Lady Frances Howard—then only thirteen—to the equally young and unprepared Duke of Essex.<sup>14</sup> Eight years later, she would have the marriage annulled, claiming Essex ignored her, but found time for sex with many others. Then she married the Earl of Somerset, the king’s favorite. Her second wedding was memorialized by Francis Beaumont’s *The Masque of Flowers* (1614).<sup>15</sup> Unfortunately, soon after, as Lady Somerset, she had her enemy poisoned—Sir Thomas Overbury, a poet known at court. Found out, she endured a famous trial,<sup>16</sup> was found guilty, avoided execution, but spent the rest of her life under a shadow.

However, in 1606, she is still the emblem of innocence, a virgin about to wed her callow groom. Hymen, god of marriage (apparently performed by Jonson himself), offers sage but bawdy advice for their wedding night: “Mutual joys ... without fear ... Glad Genius, enlarge, that they may both ere day, rise perfect every way.”

Meanwhile, lords posing as Hellenistic fauns—Greek statues with Persian wreaths—begin a Roman mating ritual. They prance in something like peekaboo outfits, with tights made of carnation cloth, “cut to express them naked, like the Greek God Thorax.”<sup>17</sup> Then their ladies arrive, weighed down

by silver “celestial” birds and fruit—with a “loose undergarment brocaded in silver and gold”—revealing gold lace even closer to the skin.<sup>18</sup> As nymphs, the ladies look “round and swelling.” Nonetheless their “sweetness of proportion” is “preserved,” or at least loaded down, by ridiculously gaudy accessories: jeweled hairpieces and gold shoes “set with rubies and diamonds.”<sup>19</sup>

Increasingly, these very expensive costumes, surrounded by special effects to match, seemed to overwhelm Jonson’s writing. He came to despise the man who designed them, court architect Inigo Jones. He complained that Jones simply plagiarized the Italians, even copied the landscapes popular at Florentine courts.<sup>20</sup> These “engines” made expensive waste look cheap. So why should Inigo Jones, a “maker of the properties ... the scene<sup>21</sup> phallo-sadism ... the engine ... (now rule the play, as) musick-master (and) fabler?”

Effects specifically by Jones kept Jonson stewing for decades. He attacked Jones directly in poetry finally made him a devious character in *Tale of a Tub* (1633).<sup>22</sup> To Jonson, the “engine” stood in for the power of moneyed interests in England, even at court. He lampooned their hypocrisy of one, (1606), and their gullibility (Bartholomew Fair, 1616). In 1612, when the Crown is near bankruptcy, while London business thrives,<sup>23</sup> he has Robin Goodfellow warn of merchant power, and its Puritan allies:<sup>24</sup>

‘Tis that imposter Plutus, the god of money, who has stol’ love’s ensigns,  
and in his belied figure reigns i’ the world, making friendships, contracts,  
marriages and almost religion ... Usurping all those offices in this age of  
Gold which Love himself performed in the Golden Age.

—*Love Restored*<sup>25</sup>

In 1631, to elevate theater against the growing influence of the masque, Jonson declared that “the Pen is more noble than the Pencil. For that can speak to the Understanding; the other but to the Sense.”<sup>26</sup> Masques with pomp distract from the actors. They destroy voice. The eye reigns, the ear fails. (Does that sound familiar in our age of ride movies?) Years before, a commentator on *The Masque of Blacknesse* marveled at how special effects “rise into the heavens or descend to the stage.” They “arouse delight and admiration among the spectators,” who fail to see how large engines can simply disappear.<sup>27</sup>

## Engines

Surrounding the rotating globe in *Hymenaei*, there “hovered a middle region of clouds.” Generally, moving clouds were controlled by counterweights—capstans. Along with the clouds, revolving prisms changed scenes (*machina versatilis*). Even more than Torelli, these changes could be synched to the falling curtain—for even quicker edits, to display “the scene with as startling a suddenness as possible.”<sup>28</sup> These prisms could also make colors tremble. Artificial fires could leap across their gold-mirrored surfaces. Waves at sea might roll and crash: waves were painted on cloth rods.<sup>29</sup> Storms at sea could rise mechanically and dissolve, along with sounds of danger coming. From offstage, audiences might hear a tug of ropes aching. Suddenly from overhead, a flying monster would burst through the clouds and dive, with a hiss, into the sea.

Indeed, all this gaudy fuss, what we call eye candy today, signaled a dark force for Jonson. He lived off the provenance of the court, but merely as the writer. Masques paid well, but writers were secondary. Eventually Jonson fell out of favor, particularly during the reign of Charles I,<sup>30</sup> and would die in poverty. Meanwhile his partner in masques, the court architect, stayed on, like a spawn of commerce. The more Jonson felt his career slipping, the more he vented against this one man. Inigo Jones, he wrote, made the Boards to speak ...” because “Painting and Carpentry (were) the soul of the maske.” So “pack with your peddling Poetry to the Stage! This is the money-get, Mechanick Age!”<sup>31</sup>

Jonson and Jones were like spiteful contract players who made great films during the Golden Age of Hollywood, both men of immense talent. Jonson in particular, a guiding theatrical spirit for his era, invented a form for the masque that had never existed before. His allegorical figures, like forces of spite more than nature, allowed the effects to criticize as well as amaze. The obvious symbolism<sup>32</sup> of the characters took on a brittle duplicity. Beneath the courtly fuss, he made the characters (often courtiers) swindle their way to the truth, with hollow tricks, exaggerations of the natural. How strange then that Jonson was so annoyed at special effects: he devised a form of narrative that made special effects a splendid alternative to drama, that suited them magically. He literally gave Inigo Jones more rope.

## Interlude

In theater history following the lead of Steven Orgel,<sup>33</sup> much has been uncovered about masque as an alternative to drama. This research serves my purposes very well. I will rely on it to jump from 1605 to the “masquing impulse” in the present.

In 1605, in *The Masque of Blacknesse*, courtiers dressed as sea creatures—posing, flouncing. Blue-haired Tritons met sea maids, who rode sea horses “writhing” on the “artificial sea.”<sup>34</sup> Then the sea itself disappeared into clouds—through the back of the stage, a miracle of ‘Perspective.’<sup>35</sup> Jonson’s directions here are quite specific: the court should operate as a collective character. All effects should revolve around them, while the scenography revolves around the king. The masque should clarify the rules at court, and the power of the state.

But as I mentioned earlier, the rules could get rather woeful. The dancing by courtiers was probably slow, only occasionally graceful, certainly not very limber. It was, to coin a phrase, “stately” “fixed in the firmament.” Courtiers posed gracefully, at the height of narcissism I suspect. Without much sudden movement, the rhythm mostly followed one artifice after the other. The sum of all these—costumes, machines, lights—was often called the “engine.” For Jenson, this engine announced that Artifice defines Nature. The engine was Artifice on behalf of the crown. It guided the court through chaos—antimasque—where Nature bowed before Artifice.

The “story” was more about counterpoint than conflict. Or should I say *counterpoise*? The dancing of the court could be frozen inside a space that resembled an enchanted ship guided by machines, while the sea melted in front of your eyes. Then to balance all this stateliness, Jonson added some bawdy humility. Against the stately engine, he added a humbler chaos, some pests sneaking in, imaginary social warfare. For that, he borrowed from streetwise London culture, from forms that already existed by themselves—impromptu, without much budget. His sources often spoke more directly about political action, about repression, alienation. (As comparison, I am reminded of songs from campgrounds and picket lines—made polite in the 1890s—or black jazz whitened up for Broadway in the 1920s.)

## Anti-Masques: Street Revels and the Bold Slasher

For his anti-masques, Jonson borrowed from street theater about chaos, outgrowths of medieval carnival, much older than masque.<sup>36</sup> By the Renaissance, there was already a primitivist fascination with carnivals. They influenced slapstick, vaudeville, the Italian commedia dell'arte. Thus, when Jonson decided to add a spicy prelude, he turned to “homely” street chaos, even to the illusion of class conflict (certainly not real conflict). He inserted the anti-masque as dialectical critique of the order that followed, to give more rope to himself as much as to Jones. Within ten brawling minutes, anti-masque moved from buffo chaos to order, what he also called “a foil or false Masque.”<sup>37</sup> But in those ten minutes, this street jesting<sup>38</sup> made for asides that could be edgy (But edgy with due care; he was at court, after all.)

Jonson also borrowed from London mummings,<sup>39</sup> where amateurs in pantomime went door to door, doing *mumchance* (gaming with dice); or invaded Christmas and spring festivals. Often, mummers took over the street, engaged in the sword dance,<sup>40</sup> the wooing ceremony, or St. George and the fire-breathing dragon, sometimes with exploding gunpowder through its fangs.

My favorite is the parody about a Turkish knight called the Bold Slasher, a paranoid remnant from the Crusades: After slapstick swordplay, the Bold Slasher dies. Then, a quack doctor appears, master of the black arts. He applies a magic elixir, *elucopane*, to the Slasher's wounds. This brings the knight back to life, but in an ungodly way. The quack doctor and the crusader turn out to be agents of the devil. They have to be chased away. Someone throws a bowl of “girdy grout” at them. Revels like these invited the audience to get noisy and antic, to throw the rascal out. Mock revenge was ritualized into an outdoor disguising: Mummers could have their naughty say before they lost to Order. Or better still, they could infect Order with frolic. They were anti-masquers before the fact, on the streets of London.

But not only the roar of street life was essential here, also the fact of theatricality outdoors. Well into the seventeenth century, plays were staged out of doors, particularly in England and Spain. They looked vaguely like mummings already. We sense that affinity in Shakespeare, in his comic relief borrowed from street festivals. However, Jonson still preferred chaos that was more genteel. He relied more on street pageants dominated by the merchant class, more enclaved, like St. Bartholomew's Fair,<sup>41</sup> closer to a Watteau painting than a Brueghel.

And Inigo Jones generally avoided plebeian street references altogether—with one exception. He was fascinated by the grotesque maiming among the poor in pageants. He studied the etchings by the French artist Jacques Callot<sup>42</sup> very carefully: the floats, the *caprices*,<sup>43</sup> the costumes of each class, the poses, the layered hierarchy. In Callot, sad mobs, ghoulish dwarfs, and dandified nobles would squeeze by the hundreds into the plaza, during fêtes celebrating royal births, military victories, visiting royalty.<sup>44</sup> However, Callot was painting a darker picture as well. He was clearly an opponent of Artifice. In his famous *The Miseries of War* (1633), he inverted the civic pageant altogether, made it grotesque. He replaced the outdoor spectacle with wartime executions, bodies flailed, armies sacking a town.

But Jones simply added jewelry and pomp to what he saw in Callot's theatricalized engravings. After all, Callot recorded pageants familiar in England as well. These often started in front of the gates of the city, then along toll roads into the town square. Floats of chimera were followed by equestria: horses suffocating in plumage—equestrian fantasia—ridden by nobility sporting costumes beyond what a peasant could earn in ten years. Then the court architect added mock architecture. Plaster facades without buildings were raised for the pageant alone, like movie sets with all the trimmings. To the poor, this must have looked like ruthless condescension, but there was usually one saving grace. Crowds were permitted to hover very close to the action, bask near the glory.

As in carnivals, the poor classes in London—even the rabble, the disempowered—were granted a few hours to roar openly in the presence of their betters. To compete with this noise, fireworks and theatrical machines were set off by the state. But even over the racket, often the voices hung on anyway, or were too hungover to care. In anti-masques, Janson parodied that openness—that boozy inchoate nuisance. It gave him more room to be prickly. From the mouths of Chaos, he slipped in guarded jokes about the scandals of aristocrats at court.<sup>45</sup>

Thus, anti-masques were “guardedly” a *contested* form, not simply pomp to honor a nobleman or a royal visitor. Even more clearly, anti-masque allowed for jokes about contested space. Characters symbolizing class warfare (shown as chaos) roared like street folk, did their slapstick, talked like rabble. They were then shooed away by the courtly, humanistic master of ceremonies and his allies. A good prince knew how to handle intruders.

This momentary break from repression, ten minutes of Chaos, must have looked familiar, even gratifying to courtiers. They noticed how the London

streets were policed during pageants. They very likely agreed that it was good to police the poor that carefully, but presumably with a velvet glove, like Good King James. They very likely assumed that pageants gave the poor a breather between nightmares. Good King James, for a few hours, let the miserable world go upside down. But there is very little evidence that the rabble enjoyed pretending that they were knights at a joust, then peacefully went home.

## Hierarchy

Jonsonian masque defended the hierarchy of the court, and the anti-masque theatricalized a few minutes of revolt. The balance of the two amounted to performance theater about crowd control. For the opening scene (anti-masque), the crowd might pretend to issue a call to arms. But immediately afterward, the masque itself smoothed that away, out of sight out of mind. *Politesse*—a seventeenth-century term for courtly manners—sublimated the mob. Thus, in the final scene, in an irradiated sunset (special effects), the prince could appear “fully extended,” as Apollo spreading like a peacock.

Consider Jonson’s irony in calling masque “the study of magnificence.”<sup>46</sup> In a world where everyone at court knew their place, class difference was magnificent; and the world outside could shake as much as it pleased. But it was hardly a secret, from the Dutch Revolt onward—from 1580 into the eighteenth century—that divine right was constantly under fire. Civil and religious wars afflicted every major power. Masque could blacken out this anxiety, and replace it with a fragile, very extreme code of decorum.

Anti-masque suggested a different twist: the myth of subversion, of a riot by the poor. The anti-masque theatricalizes revolt, while masque subdues this revolt gracefully, through media and special effects. These contrasts between anti-masque and masque are useful tools, even for the history of special effects.

Courtly masque died out during the reign of William and Mary, gone by 1700. Some traces continued in opera and the music hall well into the nineteenth century, but mostly as interludes in upscale vaudevilles, the so-called vanities and follies in 1920s Manhattan, and finally as long dance numbers in thirties Hollywood musicals. The earnest tenor is surrounded by a dither of beauties with spit curls in a Busby Berkeley number.

Where indeed does masque theatricalize and anti-masque subdue? In the movies, *masque* in the title usually means a horror tale, about Svengali, the Phantom of the Opera, red shoes that kill, Poe’s *Masque of the Red Death*, Orpheus in madness. *The Goldiggers* musicals of the thirties vaguely fit as

masques. They pretend to take the audience to the actor's life behind the curtain. The audience is then shown joining the show. The Marx Brothers are anti-masque in the Brothers' *A Night at the Opera*, 1936.

Perhaps raves, even karaoke, and various subcultural underground music scenes are reactions against subdued masque. There is something of the same in performance theater, performance art, even lip-synching in the aisles during midnight screenings of *The Rocky Horror Picture Show*.

All these fit what Jonson meant by "emblematic." The plots, such as they were, amount to "mashed"<sup>47</sup> allegories where music, dance, and spectacle served as theatrical interlude. The payoff—the dance—came after a journey from chaos to order. But the journey itself began as anti-masque, as awry, until the courtiers showed up. Their bodies were turned into gaudy sculpture. They were dressed like glazed pheasants inside elaborate machines.

Other kinds of masque, not Jonson's kind, were often held outdoors, to glorify the civic space, to help mourn a dead worthy, celebrate a famous marriage, a royal birth, a holiday, a war, a peace. More often than not, they were overripe military parades, the Baroque equivalent of ticker tape on the day that Germany surrendered, or a Nazi rally in Technicolor. They were massively scripted shows of military pride, gaudy with special effects, usually with costumed horses prancing. Governments today find that television news does much more than parades.

### Scripted Chaos

What about Vegas acts as subdued and theatricalized masque? From Liberace to Elvis(es) to costumed animal acts: fire-breathing magicians embracing tigers; expensively-lit naked showgirls as costumed sculpture. Expensive rock concerts, with all the special effects, have evolved into a rather sedate form of masque, a soothing cathexis, with some contact high, and sexual entredres.

In a class on special effects, a student asked if an orgy was a form of masque. Then she asked, if sexual domination with music counted. She worked part-time as a dominatrix. Slaves paid to clean her apartment in the nude while she spanked them, sometimes to music. I admitted that I hadn't done this research at all. I didn't enjoy cleaning floors even for myself.

## 1920: Agitprop as Anti-Masque

For the twentieth century, another example resists easy classification:

On November 7, 1920, to celebrate the Third International, artists staged a street pageant in Petersburg—a Bolshevik Feast of Fools.<sup>48</sup> Massive puppets were raised like corpses on pikes. Armed soldiers joined the thousands of civilians. The roar was so convincing to those not part of the play, rumors spread of another coup. This came to be called *agitprop*,<sup>49</sup> on streets, in storefronts, even on the sides of moving trains.

During the early 1920s, variations of agitprop were practiced by avant-gardes in Europe, particularly in Germany. Simply put, a troupe of political farceurs would “perform” the revolution. They might pretend to liberate a street, use agitation and propaganda, with music-hall forms of direct address, usually pressuring the audience to act. Thus, we should understand “mass action” in two senses—as interactive theater, and as theater merging into politics.

Brecht’s theories on epic theater came partly out of his fascination with agit-prop, and its applications by his friend, Impresario and producer, Erwin Piscator. Walter Benjamin noticed agitprop at the time when he was writing about Baroque *Trauerspiel* as subversive allegory (1925).<sup>50</sup> There were also puppet and robotic agitprops: Oskar Schlemmer staged machine-aesthetic puppet plays for the Bauhaus, as part of the style called *Neue Sachlichkeit* (the “new object-ness”), updated from constructive operas, like *Victory Over the Sun* (1913). These, in turn, point toward Eisenstein’s theories on the montage of attractions (1923).

Dozens of other names could be added here as well, like Auguste Boal’s Theater of the Oppressed in Brazil, the Federal Theater Project in New York (e.g., *The Cradle Will Rock*, 1936), campesino theater emerging out of the grape strike in California (1970). Agitprop was anti-masque without courtly masque afterward. It returned the allegory of the crowd back to its sources, to street pageants, to mass action as theater, not the other way around.

## Agitprop after 1968

Let me leap ahead in my argument for a moment, to the afterword that follows agitprop. The arc of this book will take us from scripted spaces dominated by public architecture to special effects dominated by media and tourism. Much

of this section may be more useful later on; but it belongs in this category. The rest of it will be available as an epilogue to this chapter.

Clearly in 1968, the public “interactive” process that I call masquing took a strange, and indeed a dangerous turn. And now in 2003, it has clearly taken yet another step, in the midst of a worldwide crisis during the invasion of Iraq, followed by a stillness. The stillness is in fact a camouflage, punctuated by media news as agitprop, to cover up the looming crisis. Media experts help the political handlers. Together, they stage photographs of Bush as Moses, or perhaps as Indiana Jones.

Like loyal Baroque masquers, they have saved the monarchy. It is an Electronic Baroque kingdom. Since the early seventies, the momentum toward this has been steady and well financed. The direction of American political culture has been altered, away from any version of mass action. The anti-masque, as it developed in industrial culture, as agitprop, subcultures, perhaps even the tradition of the avant-garde, has been short-circuited. And these were forces far more politically vigilant than anti-masque ever was. But they no longer function very powerfully as a mode of resistance and political critique. It has been absorbed into a system of special effects generated through electronic media, and massive global branding. Agitprop has been institutionalized, converted into media talk shows and war shows as masque. The turning point was undoubtedly 1968, and the decade afterward.

### Chains of Being: In Defense of Hierarchy

Like my memories since 1968, Jonsonian masque was media in control of a theatrical crowd. Meanwhile, through media—special effects—an irradiated sunset revealed the king’s power “fully extended,” an Apollo spread like a peacock. This masquing through media had its own “pop” philosophy as well, a kind of McLuhanism for the Electronic Baroque. In 1976, literary historian Northrop Frye discussed the process very clearly.<sup>51</sup> First, he linked Jonsonian masque to the Great Chain of Being: feudal theory updated during the Renaissance, about feudal order as an unbreathable chain, from God on down.

Within this hierarchic scheme of things, there were the four elements, governed by the echo of a fifth: the spiritual ether (*spiritus mundi*). *Spiritus mundi* operated almost like a thinking organism, the cortex of the chain. Through matter, it taught the truth behind appearances, that in time, all things must learn their place, most of all how to act graciously (with *politesse*). The three estates

*presumably* knew their place—a myth to cover up the sense of a brooding crisis ahead. In the same sympathetic way, the soul knew its place within the body. Or the planets moved knowingly, to keep the heavens from falling apart.

This mindful order made knowing your place self-evident. It could be sensed as plainly as Jacob's ladder—*axis mundi*. From high to low, the Chain assigned rank. Those who failed to understand their rank, like poor Faust, fell under God's savage wrath, or, like Lucifer, were exiled outside the Chain altogether. The debates on all this were fierce, on how the Chain related to natural law, and so on. After 1630, many philosophers argued for a more pluralist Great Chain—Descartes, Leibniz, Spinoza, Locke—while at the English courts, a reductive version was frequently applied, as a fashionable aesthetics echoed in masques.

According to tradition, the Great Chain was theologically linked to Neoplatonism; and in courtly circles this amounted (no surprise) to a defense of the monarchy. Of course, this convenient Neoplatonism<sup>52</sup> came by way of Marsilio Ficino and others, who used a Christianized Plotinus as their source; but it had traveled the low road for over a century, leading to terms like Platonic Love, and numerous cults (Christian cabala, Gnosticism, etc.). It had been steadily turned into fashion at various courts since the Renaissance, since the popes who patronized Michelangelo, and in the courts of Henry VIII and Elizabeth I as well.

The fashionable version was simple enough to argue, considering how deep the source. Neoplatonism (and, by extension, the Great Chain) “proved” why architectural special effects were necessary, why synesthetic immersion did its tricks beneath a Renaissance dome, in Raphael or Botticelli, how it guided the viewer toward *spiritus mundi*. As art historian John Shearman explains, when viewers walked beneath a Renaissance dome, the historian imagines (for often scholarship can only be a deeply informed fiction) that they traveled “from real space to fictive space.” In grander terms, they went “from this world to the world beyond the tomb in space and time ... liberating the space of earthly dimension.”<sup>53</sup>

Presumably, this scripted journey proved that the neo-feudal state was spiritually imminent because it felt politically eminent. Princes could not fail to be good, even bad princes, because *spiritus mundi* showed them sponsoring the scheme of things. This convenient Neoplatonism also defended the taste of patrons with ready cash. It made theatrical illusion Neoplatonically self-evident. Thus, alongside the glories of Ficino's academy in Florence, with its call for Rapture and Becoming, emerged Neoplatonic special effects—the

scripted, rapturous space. It was courtly mind over matter inside a scripted space. Neoplatonic immersion became Raphael's defense, as it was Inigo Jones's argument a century later—and Jonson's, identifying Pythagoras as Neoplatonic. Let us say that there was high Neoplatonism and practical Neoplatonism.

In the eighteenth century, the term degraded even further into a wonderful, ornate claptrap. We finally wind up with Goethe's mournful Werther (1775). Poor Werther is platonically in love. His lady (already married) decides not to soil this pure love by having sex with him. At last, as his only Platonic choice, the gracious way out, Werther flings himself into the river. Romantic death was commodified further by 1850. Near train stations, shady vendors hawked occult, gnostic, cabalistic, moonstruck powders— Romantic ways to tease death. In immersive space, late pop Romanticism went even more gruesome and carnal. Twisted bodies were featured in dime museums. Hypnotists and magicians unleashed the spirits of the dead. Baum finally deflates and satirizes these morbid swindlers in *The Wizard of Oz*.

To be fair, of course, the high road for Neoplatonic forms also survived,<sup>54</sup> variously in Palladio and his followers, later in Leibniz, even Hegel, and was clearly a principal target for Descartes. But these giants also knew its vernacular form quite well, equated Neoplatonism with theatrical illusion. It amounted to a simplified pilgrimage inside a scripted space, along a stream of special effects, from the ancients to the Church, from Artifice to God. In masque, this Great Chain involved a series of correspondences, of linking analogies and dances. Ancient pagans bow in as Christians under the skin. By the third dance, the pagans sense the superiority of Christ the way a dog hears its master. As masque, paganism was a Neoplatonic path to the Christian order, just as special-effects machines were a “beguiling syncretism”<sup>55</sup> similar to the Great Chain.

After that stop on the chain came the next practical step—into pure ether (*spiritus mundi*)—as represented by a spectacular mishmash of pagan and proto-Christian images, and from there to pure magic itself. Of course, Shakespeare clearly thought some of this was nonsense in *The Tempest*.<sup>56</sup> His characters are more than willing to give up perfection along the chain, and settle for humanity instead. Prospero's masque is mostly about theatrical evasion. His humans daydream too much anyway. Their Neoplatonic spirit may never find a home (daily life is a glorious but low-grade nervous breakdown). Certainly Ariel and her antipode Caliban, the walking embodiment of Neoplatonic order, keep missing their cues; while the great magus Prospero

is forced, to recite these cues. Finally, in Act IV, he mournfully rejects Neoplatonism—and special effects in the masque (a masque modeled partly on *Hymenaei*, on the dissolving “great globe”):<sup>57</sup>

...These our actors  
As I foretold you, were all spirits, and  
Are melted into air, into thin air,  
And, like the baseless fabric of this vision,  
The cloud-clapped towers, the gorgeous palaces,  
The solemn temples, the great globe itself,  
Yea, all which it inherit, shall dissolve,  
And, like this insubstantial pageant faded,  
Leave not a rack behind.

The payoff then was not Rapture, but “such stuff as dreams are made on.” However, for other Elizabethans, like Spenser and his *Faerie Queen*, even pagan enchantments from the Druids could be labeled Neoplatonic. “Popular” Neoplatonism allowed for many forms of non-Christian animism. It offered a kind of woven tapestry where satyrs and tree sprites could nap beside Christ the Lamb. It was, in its way, very ecumenical—and very despotic. Any gruesome deft-footed monster loses a will of its own. It must drag itself, as if in a trance, toward Christianity, to its place on the Great Chain. And that place was holy, because Augustine, Plotinus, or Boethius dreamed it up. Thus, even during the Inquisition, hundreds of pagan names are forgiven by way of Neoplatonic “Rapture,” along the Great Chain of Being.

## Dancing and Civil War

The elegance and hokum of “pop” Neoplatonism is like a pyramid scheme (very hierarchical indeed), from Leibniz writing on theatrical illusion to flying chariots taking chimera down to hell. And while masque choreography has been studied very seriously—the influence of Italian and French dance, the ethnography of dance, and so on<sup>58</sup>—I keep laughing over one image. I see bloated courtiers dancing while the world outside explodes, en route to civil war by 1640.

The career of playwright James Shirley (1596–1666) is particularly apt here. He converted to Catholicism as a young man, bounced from court to the street

as the civil war shifted the government away from Catholics. Consider Shirley's ominous stage directions for the comedy *Love's Cruelty* (1631): "a tempest so artificial and sudden in the clouds, with a general darkness and thunder ... that you would cry out with the [actors] that you cannot scape drowning."<sup>59</sup> Indeed, the Artifice of Shirley's masque, its thunderous effects, suggests a formal act of forgetting. Drowning onstage precedes the drowning on the street when the Civil War arrived.

Dancing in the masque, with glittery media all around, was an exercise in collective forgetting. As Jonson advised, Dances and Antics might reign together, but running away from Nature was "the only point of art that tickles the Spectators." Or as Frye explained: To Jonson, the special effects by Inigo Jones were "a perishable body."<sup>60</sup> Thus, to restore what was "obliterated," Jonson added anti-masques: "the epiphany of temporary disorder or confusion." Conflict between the two provided the immortal soul of theater, its Neoplatonic truth.

Jonson saw Neoplatonism as imbalance finding harmony, a story conflict about contested space. The Great Chain of Being was weak. Hierarchy along the chain was shaky, like the neo-feudal state itself. Masquers may attempt absolutist avoidance, but the tensions on the street were still impossible to ignore. Thus Jonson invited courtiers to act out the demise of their creed. He wrote masques as an imbalancing act. Draw some blood, but pretend that this is not the end of courtly life altogether.

Let the special effects (but not his dialogue) be a dance without death, so artificial, so immersive, so filled with fake cataclysms, to put the courtier's mind at ease. Of course, many writers saw the irony of special effects as an imbalancing act. In 1613, Thomas Campion wrote in *Lord's Masque* (1613) about "the kind delights" that God, through Inigo Jones, could "breed." The stars moved in an exceeding strange and delightful manner, and I suppose few have ever seen more neat artifice than Master Inigo Jones shewed."<sup>61</sup>

But [Campion adds] to return to our purpose; about the end of this song, the stars suddenly vanished, as if they had been drowned amongst the clouds, and the eight masquers appeared in their habits, befitting their states ... the richest show of solemnity that could be invented.

Campion has the masquers pretend to be set on fire, with "flames of embroidery" at their feet, and flames of gold enamel on their head. Silk "representing" a plume of smoke emitted from their skull. Campion's story, of course, explains

all this away, as “artificial fire” (very Neoplatonic indeed): But the grim special effects speak for themselves, about literally dancing in style at the end of the world.

As we shall see in chapters further on, special effects are one’s fondest desires and worst nightmares joined at precisely the same instant. The staging, meanwhile, has to look artificial, and yet immersive, to charm and reassure the audience. In that spirit, Jones’s special effects were immersion as a loyalty oath. But they too had their underbelly, their imbalancing act.

To find that underbelly, we return to our dancing courtiers one last time: They still look overdressed. Some are in shape; many are flumpfing around, very likely overfed. There are even rumors of heavy boozing and falling into food at some masques.<sup>62</sup> The courtiers recite speeches about how frail they are, how contingent to the king, along the Great Chain: They bow with grace, immodest for modesty’s sake. Their place in the political hierarchy has grown weaker. They promise to look to their own house instead, to their servants, mistresses, and hunts—to never make war against their king. They will settle for peace above uncertainty.

The special effects whirl around them. But even the effects look like enemies dressed as machines. They stand in for an uneasy alliance between the weakened king and the merchant class, not with the nobles. Pythagorean proportions, after all, were the tools on merchant ships. Indeed, Jonson’s complaints aside, even the special effects trembled under all this exertion. Courtiers look exhausted just keeping their legs high enough for the last dance of the masque. A courtier’s metaphysics could be rugged.

## The Digital Chain of Being

Needless to say, this Neoplatonic unease grew horrific after 1649, when Charles I was beheaded. In brief, Neoplatonism did not survive well into the nineteenth century except in spooky sects and magic lore. Then its Baroque origins were essentially rediscovered—and scholarly interest renewed—in 1936, when intellectual historian A.O. Lovejoy published *The Great Chain of Being*. But even Lovejoy concentrated more on Enlightenment natural religion than on masques in 1610.

Now in 2003, we see a revival of the Great Chain as digital entertainment, as the title of a computer game,<sup>63</sup> mostly tongue in cheek, about humans spoiling the balance of the universe. Role players can fix this imbalance by

dressing up as wood sprites, ores, trolls, dryads. The pagans along this Great Chain have been infected by Tolkien's trilogy, along with movies like *The Fifth Element*. For the term *axis mundi*, I found 820 sites, including a role-player game (from White Wolf), hundreds on spiritualism, witchery, paranormals, folk music, jazz, esoterica, ancient artifacts for sale, global shopping online, links to Gala (the world spirit inside the earth), and a comic about "a famous virtual reality (sex-changed) terrorist hacker."<sup>64</sup>

Also in the mid-nineties, during a utopian bubble on the Internet, the concept *virtual* was occasionally labeled Neoplatonic, as in magic, Rapture, and alchemy. In 1998, science critic Margaret Wertheim wrote: "Contemporary dreams of cyberspace parallel the age-old Platonic desire to escape from the 'cloddishness' of the body into a 'transcendental' realm of disembodied perfection—the realm of the soul."<sup>65</sup> But then Wertheim warned that this new Jerusalem "will be lonely," as in the Christian eschatology. Cyberspace will respond to alienation, but with communities that remain disembodied. Then, soon after Wertheim's essay appeared, the e-commerce bubble collapsed.

We wonder if, along these new Chains of Being and *axes mundi*, there will be revivals of feudalism and hierarchy, or simply better search engines when shopping for accessories to the masque. The image of the special-effects city, of the microcosmos, of dark cities and *Blade Runner* cities, recover the *axis mundi*. We go back for a last look: Milton dedicated his masterpiece *Paradise Lost* to its sculptural imaginary: he dangled the earth on a chain, below a quadratura ceiling of the heavens. Satan was stuck at the bottom, to prowl but never repent, "hurled headlong" from "the ethereal sky with hideous ruin and combustion down to bottomless perdition, there to dwell in adamant chains and penal fire."<sup>66</sup>

Satan's refusal would become a tallying cry for centuries, a Romantic foreboding, as the poet Henry Vaughan wrote in 1650:<sup>67</sup>

To live in grots and caves, and hate the day  
 Because it shows the way;  
 The way which from this dead and dark abode  
 Leads up to God;  
 A way where you might tread the sun, and be  
 More bright than he  
 In our future, I see us shrinking the Chain to a pocket watch.

## Masque at War

The art direction for the principal scene in *The Masque of Blacknesse* begins with an “artificial sea” flooding a landscape. Waves crash “the billow to break”; they “imitate that orderly disorder ... common in nature.”<sup>68</sup>

Tritons arrive, human from the waist up. Taffeta on their back is “carried by the wind.” They are followed by two sea maids on mechanical sea horses, an Ethiope, twelve nymphs inside a glowing concave shell, and twelve torch bearers on sea monsters. Meanwhile behind everybody, in deep focus, the sea empties into the horizon. Then the sea merges with clouds toward “the level of the *State*, at the upper end of the hall, drawn by the *lines of Perspective*.” The scene is sloped downward, as if from a ship, catching “the eye far off with a wandering beauty.”<sup>69</sup>

As so often in masques, nods to shipping were everywhere: power at sea, power from ships, power for war. On the horizon, the sea was very still, but of a “wandering beauty in orderly disorder.” I am reminded of newsreels from the great powers before World War II, and the war of nerves about to begin. In 1608, masques were sent to war by letters of state between diplomats from France, Spain, and England. In 1610, the royal counsellor for Henry IV in France wrote a tract condemning masques as heretical, arguing that madmen, satyrs, animal fetishes, and monsters were taking the place of Christ Himself.<sup>70</sup>

Later in response, John Taylor, a counselor for James I, defended masques,<sup>71</sup> because they “demonstrate the skills and knowledge that our warlike nation (has) in engines, fireworks, and other military discipline.” Let the machines of war be gloried even in spectacle. “War seems to sleep,” but our sovereign may “arouse her, to the terror of all malignant opposers of his Royal state and dignity.” That bombast turned out to be more than simply a flare. Ten years later, a colossal war engulfed the continent (1618) and continued for thirty years, while the popularity of special effects grew in the courts at war.

## Proscenium: The Triumphal Outdoors

Indeed, the masque was often propaganda, but with hidden paradox. For example, we study the proscenium itself: it alluded to *triumphal* celebrations where crowds mingle on the streets. These presumably echoed ancient Rome. The returning army would be welcomed through a proscenium. Imagine gargantuan statues guarding ‘the entrance to Cleopatra’s needle, or the gates of

Rome, or the center of Piazza Navona—the Romans taking on the mantle of Hellenistic monumentality, a Greco/Egyptian/ Roman procession. The two pillars of the proscenium signified a great victory.<sup>72</sup> They stood *pro*—before—the scene; and framed the spot where honors might be given. Suddenly, the curtain (also *pro/scenium*) dropped to reveal the spectacle, like velvet off a statue.

In the Baroque memory of ancient Rome, this proscenium signified an interactive process, a public triumph with diffuse events all over the site. If we look at Callot's etchings of proscenium events outdoors, the proscenium stage was dwarfed by the subnarratives around it. Each of the various classes and guilds had its place, and events. It was crowded frolic. The two dressy pillars at the center served as polestar more than a centerpiece. So too with masque in many ways: the proscenium invited the interactive; the audience crossed its threshold to join the play.

Proscenia also allowed the outside and inside to interact. The curtain edited from one to the other, from Nature to Artifice, back and forth (outdoor/indoor). After all, the proscenia that Architects built for fireworks often resembled the proscenium they designed for the royal theater—as did the chapels and altars for churches. The proscenium was a military symbol. It signified the triumph of a new set of alliances, between faith, entertainment, mercantilism, and the prince.

Masque simply exaggerated this symbolism. It let courtiers “revel” as if they were sea captains and Olympians—to sail through the proscenium gateway into an imaginary city or countryside. By 1600, arches had been added to proscenia on the stage, to enhance the crossing. It highlighted the curtain, the magician's velvet, a tease to hide sleight of hand. This upgraded proscenium helped the turning of Nature into Artifice stay “more thoroughly hidden and indiscernible.”<sup>73</sup>

## The Limit Between the Visible and Invisible

But what good is sleight of hand if you cannot see the hand? Theater historian John Peacock calls the proscenium “the limit between the visible and the invisible.”<sup>74</sup> It was a seam where nature turned into theater; and back again. Masque turned this seam into the suture that made a kind of architectonic story: It was a story about contested space—for war, for power—where order and disorder became a pilgrimage and an adventure for the courtiers.

No wonder then that Inigo Jones emphasized very speedy disappearances, set changes that matched rapid-fire curtains, for a “scenic transformation of startling ingenuity.” Like computer compositing in film today, the suddenness of his *machina* “took on a preternatural character.”

This montage of effects gave the masques their presence—a multiple of media and narratives sharing the same moment. The proscenium was monumentalized, like war monuments. The proscenium was also a journey behind the machine, to how the “engine” used perspective awry; accelerated perspective, and winches, counterweights, to feel the genius of the seafaring ship of state pay homage to its king. Artifice turned politesse into marching orders. It turned overlapping scripted spaces into a living ecosystem, life as an automatic machine. Thus, the courtiers became automata of a kind, so costumed, on their mechanized floats in a wood and cloth *microcosmos*.

## Noise

To pay homage to conspicuous display,<sup>75</sup> in Baroque theaters, many of the nobility and upper bourgeoisie were dressed as theater pieces themselves, actually sitting on the stage. To get a sense of what this meant, we imagine ourselves in the cheap seats. Around us, everyone seems to be craning to see a nobleman’s full regalia. Some can’t take their eyes off the worthies seated above the play. Even the stage lighting often matches the colors they wear. This display has been planned. We are, in a sense, permitted to watch them above us. That is why they sit in boxes built literally within the curve of the stage itself. They are a subnarrative for us—and for them—to enjoy, a second play about intrigue and power. Some boxes have a guile added in front, to protect against prying eyes, as yet another tease, more magician’s velvet.

The worthies know that they are here to be gawked at. They even dressed for the performance. They are a *tableau vivant*. Their clothing blends with the show, since they sit so close to the action. But like all special effects, they remain out of reach, just past our fingertips. Those in common seats, including supplicants and aspirants, nudge each other. We mumble loudly, practically in a stage whisper. We watch the worthies at their ease. We share their gracious space for almost two hours. A man be-side me keeps asking if the play goes well for them, then spits on the floor.

Clearly, he and many others did not come to see the actors. For example, at the new theater built for Cardinal Richelieu, the stage was angled so obliquely,

most of the audience couldn't see much anyway. Instead, they followed the action by studying the face of the cardinal or the king. Look, Richelieu is laughing. Deference to his power was more important than the story on stage. So many good reasons to visit a theater without having to see the play. Near the cheaper seats, we hear a constant buzz, enough to fill the theater with noise. This would be true often in the eighteenth century as well. Keeping an audience quiet was notoriously difficult. Often, the buzz was encouraged. The audience was invited to let loose.

In fact, ruckuses became standard at many theaters. Jonson's anti-masque merely aestheticized that buzz, the controlled anarchy. But if buzz from spectators amounted to a secondary form of story, what was its conflict? Obviously the conflict was about class—about perverse fealty, about homage gone a little sour. It was a theatrical war between deference and chaos. The crowd in the cheap seats acts as if this were market and slaughter day. They might even scream stories of their own while the play is on, all but drown out the performers speaking their lines.

Arguably, Jonson's anti-masque refers to that crowd. Its noise amounted to a people's critique, to street pageants taken indoors. They were carnival, when peasants were given a few days by the lord to pretend they had power, to turn the world upside down. After venting and gorging like cattle getting fattened for the summer, they were presumably ready to slave in the fields for another season.

In France, the pit of the theater, known as the *parterre*, operated very much like carnival. The poor were allowed to play critic, to carp about the play. By copying the style of the pit occasionally—as anti-masque—a crafty writer like Jonson could risk a little carping as well. He could deflect his critique of the court, release his bile through the mouths of imaginary troublemakers—voices from the pit. Masque was indeed early stately triumphalism inside a contested space. It was allegorical contested space, where complaints about the economy, even the court, were snuck in—with the prince's preapproval.

Then after 1780, the noise from the pits practically stopped throughout Western Europe—replaced by new house rules for piety and enlightenment. Even talking too loudly from your seat became the mark of a slovenly oaf. Rather suddenly, historians point out, a bourgeois definition of propriety took over.<sup>76</sup> But the anti-masque did not quite disappear. It found places in industrial cities as street theatricality or in pubs; as burlesque, stand-up, performance art; as avant-garde performance theater; perhaps even in computer war games; and of course, in outdoor processions where the audience is

formally invited to be angry, but goes home after dark, from soccer matches to raves. It is the sport of “spiriting”.

Anti-masque also crops up more sedately during the Fourth of July picnic, with fireworks as a symbolic gesture to the past, even some howling at the moon, but no one charging up Bunker Hill. I remember on the Fourth hearing teenagers fire pistols ritually into the air, pretending that bullets leave the earth, and never come back, like the Jules Verne ship in *From the Earth to the Moon*. However, occasionally the crowd may act. Urban uprisings sometimes start as innocently as anti-masque, like crowds waiting quietly online to loot a strip mall in 1992 in Los Angeles, or throwing small stones at the start of intifadas in Jerusalem.

But my subject is more modest, perhaps sadder. I arrive when the anti-masque has been converted into special effects. I study a splashdown at shooting waters, or a group weekend in Vegas. Or try to stay awake at a youth nightspot or, better still, as hormonal agitprop and anti-masque, a fully loaded rock concert.<sup>77</sup> There, the *parterre* is scripted of course. The group is liberated because it agrees to be inert. While letting off some steam, they sense collective power, and that is enough. They feel better afterward, ready to pay fealty to the lord. I'm not all that different. I'm a ridiculously peaceable middle-aged man these days, but this project is teaching me to remember the difference. Sometimes I simply let off steam in order to be inert. Sometimes, I am required to lose track of my authentic self-interest. I wonder if anti-masque has been confused thoroughly with carnival. If it has, we'll be masquing our way to nowhere.

## Epilogue: Breaking News

During the sixties, the term *agitprop* was rediscovered as an adjective. It appears in numerous articles, flyers, posters for political mime troupes, Fluxus and Situationist events, American free-speech and antiwar rallies, hippie and yippie theater. The adjective *agitprop* even occasionally was applied to television news teams covering the antiwar movement. This is a crucial distinction to notice, how media converts mass action into masque. Breaking news stories about the New Left were featured at the news hour, alongside scenes of the Vietnam War. News at six sometimes turned into an anti-masque of sorts, a subversive ninety seconds at the top of the hour.

This was quite evident in August 1968, for the four days when I cautiously joined demonstrations at the Democratic Convention in Chicago—during a police riot. Cameras showed up everywhere, even while the riot turned darkly whimsical. One afternoon, I saw police fire tear gas at young demonstrators. Then winds off Lake Michigan blew the smoke backward. The cops went momentarily blind, dropped to their knees while the tumult scattered around them. I watched gleefully, was reminded for a second about Dada and twenties agitprop. I remember the faces of demonstrators. They were so much gentler, more innocent than I had wanted to admit back then, tender anarchists, yippies, neighborhood kids, a few organized radicals—just molten carnival, despite the high stakes, the fury, and police brutality. On Sunday night, while police circled hundreds of children, a strange young man came up to me. He had no toes, no fingers, seemed to exist on stilts. He threw a small rock at the police, and yelled “fuck you” a few times. Later on, I was told he was a police agitator, a performing geek for a street pageant.

Nonetheless, these demonstrations helped topple the Democratic Party in 1968. Yet to this day, I cannot say for certain if they were acts of citizenship, or modes of distraction. And yet by Election 2000, even that small bit of political good seemed to have disappeared. While Bush was selected president, the whole world was *not* watching anymore.

While the complete Florida vote was cut short for Christmas, those demonstrators who condemned the process were often downgraded or downcast on cable news as a few sour faces ruining the parade. Almost nothing like mass action or agitprop made it to American TV. Cable news simply ignored the rallies in Florida and the anti-globalization events. In fact, nearly all public resistance was simply kept off the screen altogether. Instead, the cable networks (and NBC, ABC certainly) agreed with the Republican leadership that it was best for the country to cancel the presidential election before it ruined Christmas shopping altogether. Global media achieved a Baroque coherence in 2000 that would have made the court of King James proud. Moguls like Rupert Murdoch became the Counter-Reformation that year, cutting deals as if TV were the Vatican, on a mission to make a fundamentalist king.

Now it is almost three years later. What sort of agitprop as demonstrations can influence politics today? Global media has grown into a Vatican for entertainment. It is an instrument of power.<sup>78</sup> It sits at the table like a nation in its own right. Recently, a breaking story showed Americans watching the Northern Alliance slaughter thousands in Afghanistan (December 2001).<sup>79</sup> This apparent war crime never made it to cable news in the U.S. but was big news in

Europe. This pattern repeats continuously—factoids, raw quotes that are featured almost everywhere but here. In the U.S., like courtly masque, breaking stories that might embarrass Bush's war are mostly blacked out. Right-wing think tanks account for close to half of the news stories that appear on Fox news alone, and probably something like that on other cable stations as well.

We must ask what this simple and obvious transition suggests, from 1968 to 2003, at least as masque. The democratizing presence of agitprop antics, whatever its strengths and weaknesses, has all but disappeared. It simply no longer operates as mass action influencing national policies. Instead, on a national scale, Baroque masque has taken over. By that I mean media news as masque, in monumental defense of hierarchy, of class difference, of conservative politesse. We even seem to have social conditions around the world more like 1620 than they were in 1970. Americans certainly find a nation split horizontally, vaguely like France in the youth of Louis XIV. There is an elective monarchy at the top, our Peron, and fiscal chaos in the states and cities below.

Cable news tends to reinforce this emerging split. They dedicate hours of programming to national and global markets, almost nothing to cities and states. They interview corporate CEOs as the Baroque Jesuits of globalism. Almost nothing is heard from national and local unions, or from wage earners; they are classified as “special interests,” nuisance makers getting in the way of global markets and suburban shopping. Since 1970, many Americans have mentally adjusted to this relatively new political culture. (I would say that it was set up during the Nixon and Ford administrations.) By 2003, they have adjusted to vanishing pensions, to a world without public support for declining hospitals and schools.

Certainly, my students talk almost obsessively about the shrinking middle class, about real estate apartheid taking over the Manhattan art world (and practically every major city), about fiscal bankruptcy of almost every state budget—and their lives. They assume that oversight by the president against this corruption has all but disappeared—under the shadow of Homeland Security, in a ghostly war against fundamentalism that is run by American fundamentalists.

I often describe this process as reverse imperialism. The United States is being colonized by its own economy (a faint but scary resemblance to the chaos of the Thirty Years' War, 1618–1648). In effect, the president of the United States treats the state of California as a foreign country. The American union between the states has become more balkanized. Regional planning across state and county lines grows near impossible, for roads, water, health. Meanwhile, at the

White House, courtiers left over from the Nixon-Ford seventies have a masque all their own. Every night on TV their talk shows feature a xenophobic, fundamentalist adventurism that no longer believe in many of the old checks to presidential power.

It is masque in the age of the Electronic Baroque. Cable news relies on its own drama, a future based on near permanent, posttraumatic, postapocalyptic unease. It takes for granted that this sort of entropy is permanent, for our politics and finances.

Meanwhile, within my immediate world, responses to all this are perversely supportive. Many of my sixties generation affect an elitist contempt toward Bush, a dismissive anti-Americanism. I sense that this apathy comes out of the withering of the humanities since 1969. But however doleful, it amounts to a noncommitment that sponsors right-wing political values more than progressive politics.

So let me be a cheerleader for a page or two. Our job today is much clearer than this apathy suggests. But to take on this job, we should avoid nostalgia; no groaning that the best is over. Living through this unfolding crisis is too much of a privilege to sit back. Extraordinary options lie ahead, despite all the consumer flatulence, the chirpy banality, the warmongering.

Many critics argue that practically nothing remains of the old New Left, not even much from the New Deal. I can see that surely. Even Teddy Roosevelt must be turning over in his grave. In response, the sixties are middle-aged, in a state of moral dyspepsia. And yet, much is at stake now. My generation could easily serve as a vanguard to students and young artists, writers, filmmakers. At least to warn them very respectfully: let them know that agitprop has a naive problem. It can—by accident—form an alliance with the right against the center, as it did after Nixon's election, and into the late nineties. Also, respectfully advise them to shift their attention toward media politics, to assemble a new grammar and a new discourse.

We also, at the very least, should find out precisely how ultra-conservative media became the new Vatican. As one "shadow" nation cutting deals with another, it has joined an alliance to help a small fundamentalist wing of the Republican Party stay in power (I am heartstruck to report this. Occasionally, I remind students that I accidentally voted for Nixon seven times in 1968. By joining the anti-masque against Democrats, and feeling superior to the "dumb-ass reactionary" Republicans, I helped strengthen an alliance with the right against the center. I had been so certain that there was a limit to how far the right might go. Now, every time I see George Bush's smirk, his sheer hubris, my

dyspepsia returns. The joke is on me. But I honestly feel much more prepared in 2003 than ever before. The options are spectacular, even while the gloom takes over.)

To operate as cultural critics, we must speak unflinchingly about this emerging Baroque hierarchy. At the same time, we should be genial about the American madness, enjoy our imperfections. Admittedly, anti-masque was always escapist, a mass cathexis about actions never taken, a wish unfulfilled, and reduced to spectacle. On the other hand, agitprops and anti-masques can be prophetic. Riots inside theaters in eighteenth-century France sometimes took on the seriousness of a *jacquerie*, of a mob making demands, and threatening property. In 1968, the theatricality of student revolts in France, with the active support of labor, nearly toppled de Gaulle's government, and shifted the political direction for leftist movements across the world.

Admittedly, anti-masque is mostly theatrical, a performance and little more. Too often, it is a mode of distraction, a whiff of rebellion as special effects. Still, it is fair to say that even those who ran through downtown Chicago in August 1968—without quite knowing why—were politicized afterward. There is collective adrenaline in agitprop and anti-masque, as long as the players understand the difference between action and theater. Within five or ten years, the possibilities for renewed action, even based on special effects, may grow enormously. I am convinced of that.

## 4. Happy Imprisonment: Labyrinths

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Scripted spaces rely on shocks or surprises to make us feel light-headed, anesthetized—cheerfully disoriented. I say *cheerfully*, because we know the confusion is intended. If there are blind turns, they feel precision-tooled, whether in a Baroque garden, or inside the memory of a slot machine. But for the “shocks” to work on cue, the script must be at the right temperature, like air-conditioning, not too much, just enough to make the player feel comfortable—awed, faintly lost, but enchanted. Too much visible surveillance is good for some spaces, bad for others. Avoid tensions about social class, keep the mood genteel, the “happiest place on earth.” Instead of buildings, study the ‘bottom twenty feet,’ as architect Jon Jerde used to say.<sup>1</sup>

In nineties popular games like *SimCity*, *Doom*, *Red Alert*, the *Seventh Guest*, the player spent hours learning how to navigate from one level to another—perhaps four hours to get full hand motor coordination, and another fifteen hours to get to the climax. Then what? The script took an interesting turn, if it had potential as a cult item, what the designers of *SimCity* called “the chaos variable.” (“Chaos is, in effect, your opponent.”)<sup>2</sup>

Computer game fans still call these “cheat codes.” Secret codes<sup>3</sup> are buried inside the program—not too many, just enough. A password or a hot spot releases them.<sup>4</sup> Suddenly, you pass through levels like a phantom.<sup>5</sup> A thousand simoleons<sup>6</sup> are credited to your account.

In 1995, programmers updating *SimCity 2000* made the phrase *imacheat* release 500,000 dollars more into the sim account.<sup>7</sup> Alert game fans contacted each other on the Internet, discussed them at sites like Computer Underground (or at [cheatsource.com](http://cheatsource.com)). The fun is to cheat a little, find glitches in the program, tilt the table.

Imagine pilgrims trapped and lost, but feeling right at home, even giddy. Why? Their level of fright has been set at just the right temperature, like bathwater. They cannot get enough “happy imprisonment.” Clearly, horror films

and amusement park rides operate more or less in that way. The pilgrims pretend to visit their own funeral. They pay to have someone bury them alive, but in their most comfortable suit, with a sumptuous lunch basket in an oversized coffin, more like a hotel suite than a coffin.

For that sort of gilded trap, the best model might be Le Nôtre's Labyrinth of Versailles, set up in 1662. Inside a welter of hedges, courtiers found what Charles Perrault called "an infinity of little alleys so placed one beside the other, that it is practically impossible to make your escape."<sup>8</sup> However, before they felt too anxious, or too overheated, a fountain presented itself. At its base, words were carved: poetry from the fables of La Fontaine. Then, at various twists ahead, other fountains emerged, each with more from La Fontaine.<sup>9</sup> The courtier was expected to memorize all these fables, remember the sequence they presented, to find not simply a way out of the labyrinth, but the correct moral path. For nobility, that path led to "*gloire*," while for the bourgeois, it made for the "*honnête homme*."<sup>10</sup> But most of all, for the couple engaged in sexual intrigues inside the labyrinth, it involved something of neither.

How well this kind of scripted space—the labyrinth—suited what Louis XIV preferred for his Court, that courtiers should be given an unctuous sense of self-importance, be too glutted with pleasure to revolt. It was a walk-through dialogue about power delivered in a labyrinth, on a platter, by the prince. Noblesse oblige<sup>11</sup> (the obligations of aristocrats) was redefined. Games like these, false intrigues, ritualized seductions at court, became an interactive theater about losing self-control, under the gentle guidance (even prodding) of the king.

Indeed, losing self-control in an ennobling way was a guiding principle inside the gardens at Versailles. Excess and vanity were worn to be shorn, like the penitent who can't wait to strip for punishment. It was a scripted space for a light spanking, for just a little breaking of the commandments. While pretending to be practicing *gloire* and noblesse oblige, many courtiers would sneak into seductions. But who were they cheating precisely? There were no peasants or indigents asking for alms. In fact, the king encouraged the courtiers to "cheat," simply to keep them close at hand, make them easier to control. He wanted them to pretend to be rogues inside the gardens, but find on the sly only what he left for them. This is happy imprisonment indeed, and well worth the price of admission, the thrill of the game.

## An Abbreviated Labyrinth History

There is no fixed date when labyrinths began, only where they began for our civilization. So we skip past Minoan legend, let the Minotaur wait in his lair. As Greco-Egyptian etymology, *labyrinth* refers to one ax being crossed with another—two axes that meander. The empty space between them becomes a confusing road. This road could lead in two directions. First, it might lead nowhere, into bewilderment. Second, it simply meandered, in a meditative, unicursal spiral, like a zen.

Of course, there are many subsets of labyrinth. Umberto Eco mentions three,<sup>12</sup> Pliny cites four.<sup>13</sup> Hermann Kern's exhaustive survey adds lovers labyrinth, many differences between labyrinths and maze, folding back on itself, filling, acentered and centered labyrinths, labyrinths in various media and spaces.<sup>14</sup> Other surveys list dozens of variations<sup>15</sup>. But generally labyrinth histories circle around two designs most of all: Either the labyrinth is *multi* or *uni* cursal (many dead ends or a single path). Either it collapses on you, or it meanders ahead. In both cases, your goal as a pilgrim or gamer is much the same. You must study your entrapment very deeply in order to find "your" way; that is, to find your unique system, your story. After all, you are the central character, you are the one trapped for three hours in the maze.

Thus, uni- or multi-labyrinths mirrored much the same process. To solve your puzzle—and find your way—you give up your freedom, but cheerfully. Like Lot more than his wife, you agree to not look back, to play ahead. Those are the rules of the script, delivered from on high. You submit to them as if to an agent of God—to the Program. Thus, labyrinths are a story about losing power in order to find redemption. No wonder they were identified so often as a holy journey.

Traditionally, the labyrinth was designed as a trackless path of blind alleys (often to test your blind faith, your willingness to get lost). But again, as with our garners and courtiers, it could be very pleasant to be trapped inside. Rest stops might be provided: the nineteen fountains at Versailles; or simply a bench. Then, slowly, the blindness cleared, like moral improvements on a pilgrim's progress. In stages, the path revealed its secrets. You walked through a moral allegory; its secrets brought *revelation*.

That was essentially the role of labyrinths built for the church during the Middle Ages,<sup>16</sup> and for the nobility of Europe as late as the eighteenth century—hedges, drawings, sculpture, broken circles for walking, Troy games and infernal puzzles. Medieval ruins of old labyrinths still exist at Chartres,<sup>17</sup> in

Lucca, Rheims: they were condensed pilgrimages, with very straightforward rules, to make the passage enlightening—intellectual challenges, not merely theatricalized walks. Often, the hedges were barely ankle high, or not at all, easy to map with the eye. Some labyrinths were mosaics to trace with your feet on the floor; or a unicursal rutted turf for walking. The “sojourner” would learn whether there were single or multiple entrances, or how the helixes might operate; also what form of revelation could be achieved, usually to justify the social order as a moral good. Therefore, being able to abstract in your mind how the overhead might look—the map—helped you walk faster. But the map was only a guide. The path was not designed as the mystery itself. The story, after all, was yours. One had to navigate to find mystery, what the Germans called *bildung*: the journey as discovery; in this case a very compact journey, more like walking through edited moments. Like an abbreviated kingdom tiny enough to slip into your pocket, the labyrinth was a compressed version of a vast pilgrimage. It was a kit, a pocket reliquary; a bag of relics for armchair tourists.

This precise architectural tradition of labyrinth is what the Renaissance inherited; and later, in turn, was passed down to us through Romantic imagery,<sup>18</sup> into cinema,<sup>19</sup> consumer planning, computer games, psychoanalytical theory. The labyrinth was an interactive journey with subplots, but all of it could be condensed into a single room, on a single sheet of paper, or on less than an acre.

## Piranesi

By the eighteenth century, there are clear signals that the script for labyrinths had shifted. In Baroque labyrinths, the spectator is often sent into a fictional space where the exit<sup>20</sup> is hidden, or missing altogether. Imagine it simply as the Freudian<sup>21</sup> model of condensation in the dream, one space collapsed into the other. I prefer to call this condensed design a *labyrinth effect*. That is the easiest place to begin our history of labyrinths, where it leads to our moment the most directly. The artist Piranesi (1720–1778)<sup>22</sup> becomes an ideal point of entry—the fantasist and architectural theorist. He built sight lines of “wonder” far beyond even Le Nôtre’s mazes.

Though Piranesi put up only one building, he left over a thousand engravings. Most of all, he produced hundreds of *capriccios* (imaginary views, imaginary *vedute*)<sup>23</sup> of a Rome that never was. For over two centuries, these imaginary spaces were exploited by painters, writers, set designers, filmmakers, archi-

fects, and now computer animators. Architects at Columbia University built a computer-aided design (CAD) of the *Carceri* (imaginary prisons), entitled “The Architecture of Decay” (1996).<sup>24</sup> A software company sells Piranesi Effects,<sup>25</sup> to add moody hachure to architectural drawings, add some class. Many more examples: dozens of gothic movies, more recently Spielberg’s *Minority Report*;<sup>26</sup> TV shows like *Beauty and the Beast* 1974;<sup>27</sup> also practically every architectural abime imagined since 1780, from the cabinet of curiosities by architect John Soane (who met Piranesi), to Keats’s “Ode on a Grecian Urn,” to diaries by Oscar Wilde,<sup>28</sup> even the Piranesian tenement alleys of Dickens’s London.<sup>29</sup>

Each associates Piranesi with a disintegrated state of mind, but a precisely designed disintegration—particularly in the famous description by Thomas De Quincey. In 1822, De Quincey takes us through the first time he saw Piranesi’s *Carceri*. The engravings reminded him of movement inside a dream, particularly opium dreams.<sup>30</sup> In his mind’s eye, at first, he climbed “the vast Gothic halls.” On the first floor, he saw “all sorts of machinery wheels, cables, pulleys, catapults ... expressive of enormous power put forth and resistance overcome.” Then he mounted a stairway that came abruptly to a blank wall, but somehow grew another flight of stairs, which, in turn, vanishes as well. However, he continued upward “until the unfinished stairs and Piranesi both [were] lost in the upper gloom of the hall.”<sup>31</sup>

This, in turn, awoke in him other architecture that seemed to be enflamed by opium. He compared Piranesi to a dream of wandering through hallucinatory lakes. The lakes, in turn, reminded him of an imaginary city described by Wordsworth, “a wilderness of building, sinking far and self-withdrawn into a wondrous depth ... without end.”<sup>32</sup> To which he added: “With the same power of endless growth and self-reproduction did my architecture proceed in dreams.”

Endless growth without any end—De Quincey is describing a very precise architectonic effect. It is essentially the model of the labyrinth inherited from the Baroque—remembered by Romantics<sup>33</sup>—and applied today in special effects environments. Cyber-art critic Roberto Sanesi called this Piranesi’s “labyrinth of intimacy and totality.”<sup>34</sup> Like a dream it is loss without pain. Walking through the labyrinth is safe, yet haunting, indeed like a dream—an imaginary frontier where ultimately no action is completed. Instead, only endless choice exists. It is a maze that pretends to be a search for identity, but is fundamentally only a theatrical descent—a lingering moment of wonder, more like a theatrical machine invading our own memory.

Similarly, more than a century later, filmmaker Sergei Eisenstein remembers the first time he saw Piranesi’s engravings. He calls them “unexpectedly

harmless, with little feeling. Unecstatic”—and therefore haunting.<sup>35</sup> Even in the final years of his life, inside his imploded little apartment, Eisenstein always keeps a Piranesi etching on the wall; he even imagines how to enhance its visual impact, ‘to a state of ecstasy ... brought out of itself.’

Like De Quincey, Eisenstein is trying to design a specific hallucination, another part of the scripting of a labyrinth effect: a space with immersive winding paths, and no exits. He compares the engravings essentially to a montage of attractions,<sup>36</sup> and seems to visualize a camera moving inside them. He studies Piranesi’s imaginary Roman roads, then suggests, with a touch of irony, that “ten explosions will be enough to transform” their clutter.

However, explosions also would destroy “the great fascination this etching holds for me.” It would lose its “sense of dissolution.” By that he seems to mean the dark corners of labyrinth—the imploded, hieratic<sup>37</sup> quality. Perhaps it reminded him of safe boundaries lost, the darkness of a theater meeting the black edge of the screen. Certainly, it was a blur that is strangely gratifying, a safe madness. He even sketched a scene inside the main hallway in Piranesi’s *Carceri*, as if he planned to shoot it.<sup>38</sup>

Similarly, in 1980, the postmodern architect Manfredo Tafuri compares this Piranesian effect to a labyrinth. He explains how the exterior and interior meet simultaneously in these engravings. “We now realize that the observer himself is immersed in the structure.”<sup>39</sup> Whenever I use Tafuri’s quote during interviews with computer game designers or casino architects, they nod and immediately discuss how labyrinths work in their industry. Another phrase that catches their attention is from De Quincey on the labyrinth: “enormous power put forth and resistance overcome.” Many understand the noir side of labyrinth very well, as the spice for a ride or even a scripted space in Disneyland.

This, in turn, is similar to Eco’s description of Disneyland (1987), borrowing the phrase *degenerate utopia* from Louis Marin.<sup>40</sup> And certainly, casino architects understand how the “maze” performs its magic. The sum of all these is that labyrinth implies a narrative conflict in a space condensed like a dream, where the viewer engages in an imaginary power struggle. The struggle is as precise as a theater designed as a scripted space; however, the space has a pathological dimension, filled with endless sculpture, cornices, flutes, and no way out.

## Internet as Labyrinth: Warlord Capitalism

By 1993, labyrinths had gathered yet another meaning, as trackless wonderment on the Internet—a very optimistic meaning. The maze of new software, the emerging telematic anarchy did not make for blur, but revelation.<sup>41</sup> By 1996 though, only three years later, messianic chats about democracy as cyber-chaos began to sound increasingly naive; or like a promo for software companies. Yet, then not so finally, order was brought to the Web during the boom of 1996, by investors and commercial designers. And then chaos with the e-commerce collapse by 1999–2000. Chaos came at last, but like warlord capitalism riding through a tent city.

Now we increasingly think of the computer—even lovingly—as a sump of chaos, like the slob we married. It is fun noir, and glamour, and fast money. However, in the early nineties, in the bewildering early stages, it seemed that the Internet might restore a mystery to data that the industrial sense of order had destroyed, a trackless maze without exit. This chaos looked much more enclosed, and exotic. A French critic wrote in 1995: “The Internet resembles more the *labyrinth* of a medieval city, without a real architecture, than the beautiful arrangement of a highway.”<sup>42</sup> By then, various Web projects with the name labyrinth had begun: in game design, in Troy games,<sup>43</sup> in digital game companies, as medieval research at Georgetown University<sup>44</sup> in hypertext technology,<sup>45</sup> as well as sites for building mazes, or dancing in labyrinths as revelation,<sup>46</sup> even as cyclotrons.<sup>47</sup> Fans of the movie *Labyrinth* (1986) set up sites, as did fans of the Fox TV series *V.R.5* (1995) and other labyrinthine effects shows.

Labyrinth went through a utopian overhaul as well, with Borges as its 1996 poster child, in hundreds of sites about “dark Borgesian labyrinths,”<sup>48</sup> about “indefinite or infinite number of hexagonal galleries.”<sup>49</sup> And about Borges’s Romantic “abime”: “To be inside a (Borgesian) *labyrinth* is rather like being caught in a fog or a cloud-enveloped landscape ... (In such) a labyrinth ... the mist of imagination or language can form a self-constructed prison.”<sup>50</sup> All of that seems far away now. Many of the sites haven’t been updated for years. The faith healing has mostly stopped, the holistic nonsense taken less seriously than the flow of investment capital seemed more obvious; the Web more like an insurance salesman’s handshake, like spam.

By now we are getting used to chaotic cyber-capitalism, even in its fifteenth-century form. By 2002, a virtual Muhammad—Osama bin Laden—faced off against a mediated faux Roosevelt George W. Bush, like two accidental part-

ners in the same perverse erasure. Then came Iraq, and whatever chaos that has brought by now.

The current crisis makes it easier to make more omelets out of virtuality, now that American media have made Baghdad a virtual community. My job becomes easier. I can simply return to discussing architectural labyrinths, knowing that their darker ironies suggest the Web as well. While labyrinths “taught” revelation, they also taught political humility, how to bow obediently when noblemen passed. The story ended when you achieved balance, could render unto Caesar, and keep your identity. For example—to repeat—in the garden labyrinth at Versailles (1667), paths through the maze were preassigned according to social rank.<sup>51</sup> For the nobility, the allegory led to *gloire*, a military myth that honored feudal rank. For the middle class, a separate route taught honesty to know your place on behalf of the greater order.

Labyrinths are ideological stories, where you fall in the embrace of the power that delivers the spectacle. You feel initiated; that sense of becoming an insider reappears constantly in games, however trackless.

I also see labyrinths as an aesthetic evasion. We need to build really leaky labyrinths. Because under all the disembodied marvels, all the fluff, lay our *actual* future, as real as a car hurtling downhill without brakes. We call the manufacturer to complain. No brakes, they ask? The easy-listening voice reminds us that our radio and CD player are digital, state of the art. They won't fail us. The wall is at least ten minutes away. There's bound to be new software to fix brakes by then. Look on the bright side.

More specifically, labyrinth is the journey itself—not the architecture—more like a mood of passivity. It's the ergonomic pleasure of feeling trapped. Or to have remote control, originally called “Lazy Bones” (Zenith, 1950).<sup>52</sup> Nothing is on, but you persist in consumer Calvinism: the myth of free will in a world of absolute predestination. You “mute” and “jump.” Somewhere you imagine that you are subverting the programming. You give in to the safety of the technology.

I have to underline *safety*. For example, as a child in Coney Island, I used to watch relatives decide on which ride to take. There was the Cyclone, roller coaster, and next door, the bobsled. However, rumors persisted that every so often, on the bobsled, someone fell off and died. Or did they simply wound up paralyzed. No one knew for certain. Getting hurt on these rides was a very rare event, one in 10,000, if not 100,000.

My uncle would suggest riding the Cyclone. Everyone smiled broadly, looked up at the Cyclone roaring from the peak. Then, in a whisper, my cousin

suggested the bobsled. That always dampened the mood. An existential chill would take over. After all, the Cyclone only “simulated” death, but that was because you never died. You were statistically immortal. Bobsleds were not scripted well enough. There was not enough oversight, not enough surveillance. In the parlance of the fifties, where was Big Brother when you needed him?

Labyrinths are like arm wrestling with a parent—or Jacob wrestling with the angel while God watched: carefully controlled, not open-ended really. It is almost a theological replay of childhood. The parent is the program itself, the apparatus that gives you the magic. So no matter how cute the script—a hug from Goofy, a wink from Barney—it is fundamentally a picaresque about a godlike apparatus, a mountain god that cannot be violated (always stays encrypted).

Borges has a magnificent description of the mood inside a labyrinth, what Tafuri calls the “solitude that engulfs the subject who recognizes the relativity of his own actions.”<sup>53</sup> From Borges:<sup>54</sup>

The Library is unlimited and cyclical. If an eternal traveler were to cross it in any direction, after centuries he would see that the same volumes were repeated in the same disorder (which, thus repeated, would be an order: The Order). My solitude is gladdened by this elegant hope.

Labyrinths are a profoundly corrupt game. I would like to see more labyrinth games about the corruption itself; but then again, they already exist.

## Literary Labyrinths: Blindness, Crowds, and Madness

From an anonymous German parable:<sup>55</sup>

Her labyrinth could be compared to shocks while groping in the dark. In her blindness,<sup>56</sup> she kicked something. That awakened a machine nearby. Gears hummed and meshed. Suddenly, a wall caved in. Then, just as suddenly, it retracted. But somehow, the jolt was pleasant. Not too much blood drained from her face. She felt light-headed, anesthetized. Gradually, her eyes adjusted.<sup>57</sup>

On film, the flat screen—labyrinths look much grimmer than in scripted spaces (casinos, malls, computer games, remote controls). They turn into zones of death or dead ends, for car chases or eccentric shootouts, like *The French Connection* or *Die Hard*, in 10,000 action films. And through gothic chambers, and the hives of monsters in another thousand horror franchises. Or as rising water levels and depleting oxygen in disaster movies—in the fight to stay above water inside the *Titanic*. They suffocate and explode, and defy readable maps.

These cine-labyrinths are the result of intercutting—trails spliced by the camera while the monster chases the beautiful teenagers. Instead of comfort zones, there is no escape. Secondary characters run too slowly, or hide badly. Their path is cursed. The alien can smell them. “It” glides like seepage through the ventilation ducts. Clearly, the secondary characters do not stand a chance. They are blood sacrifice for the second act. Eventually (in the final ten minutes) the star will get to kill the alien. But meanwhile, the camera follows “It” slithering through a labyrinth of streets, rooms, crowds, or simply in darkness.

*Horror*: Needless to say, labyrinths as horror would never do for resort hotels in Las Vegas. And when your computer behaves with a blind vengeance, you feel like taking out a contract to kill your software provider.

But in Kubrick’s *The Shining*, arguably the classic cinematic labyrinth, a hedge maze is infected by psychotic ghosts who roam the hotel rooms, and fester inside a writer’s brain—a bad father. This double helix of mazes, inside and outside the hotel, is a special-effects construction of the mind more than space. His mind is animated by haunted thoughts, like labyrinths in literature, descriptions in novels of labyrinthine streets, tainted memories—even like the “introspection” of the printed page itself. Print brings blind vision. The mind of the character is attacked by ghosts that readers must conjure up out of written descriptions.

This is a vital distinction. Cinematic labyrinths rarely borrow from architectural scripted spaces. Historically, they resemble introspection in literature much more. And in Part III—on cinema—we will be entering various interiorized, montaged labyrinths. Thus, I should briefly review their literary parallels, for use later on, and for added nuance to the broader question: What happens mentally when labyrinths are not scripted for comfort? What happens when you truly cannot remember where you parked, and wander the parking structure as if you just parachuted in from another continent?

## Literary Labyrinths: The Virtues of Moral Decay. Inversion of the Senses

So true did all this phantasmagoria  
from books appear in his mind that  
he accounted no history in the world  
more authentic.

—Cervantes, *Don Quixote*<sup>58</sup>

In literature, the labyrinth effect translates often into metaphors about sensory disintegration, a literary reading of *trompe l'oeil*, as the terror of blindness. Either the character has fallen into a place with too many paths or been squashed into a corner. This sensation is hardly as comforting as an architectural labyrinth, with benches by the fountain. Instead, we imagine a blinded Polyphemus wandering on his island. Every rock is suddenly foreign to his touch. He stumbles gruesomely through the labyrinth of utter darkness.

Almost all references to labyrinth in literature suggest a world that has thrown us into blindness of one kind or another. The other senses try to compensate because vision (mapping, pathways) has failed. We feel frantic. We accidentally run past too many trees on a starless night. We feel our way past them. Their barks feel miraculous, like sentries in armor.

We “see” the tree by its absence. That is essentially how literature generates the mood of labyrinth. It evokes by removing sight, because a well-written story relies on your not seeing except in your mind’s eye.

There are literally thousands of ways to evoke this metaphor of labyrinth, of compensating for blindness, of the terror of black space. For example, historian Martin Jay cites Lacan (labyrinth of language), Bataille (stomach as labyrinth), Irigaray (the labia as labyrinth), even Dante (meandering down to hell), among others.<sup>59</sup> To Jay, labyrinth became “a powerful image in the anti-ocularistic discourse ... (where) temporal deferral replace(s) timeless spatiality and unmediated presence.”<sup>60</sup> Simplified as postscript for a chapter on Baroque special effects, Jay’s argument suggests that many twentieth-century writers reinvented the Baroque heritage as “anti-ocularistic.” Jay identifies this process as “transparency,” when the spectator “effaces” the role of voyeur ... difference between actor and spectator.<sup>61</sup> He describes the self invaded by the public sphere in the industrial city, leading to further introspection, mazes teeming with paradox.

## Cities as Labyrinths

Consider Baudelaire's classic paradox, that he liked to mix his solitude with crowds of people.<sup>62</sup> Suppose that solitude and crowd were both labyrinths, each eroding the other. In phrasing that was standard by 1850, "the labyrinth of the world" mixes with "labyrinths of the mind."<sup>63</sup> The paradox was unresolvable, at least psychologically. One person's mazy—solitary drift is caught inside the osmotic power of a *crowd*.<sup>64</sup>

Baudelaire describes labyrinth as poems he never got to write. In his mind's eye, he sees buildings outside collapse upon his symptoms inside:<sup>65</sup>

Vast Pelasgic buildings, one on top of the other.  
 Apartments, rooms, temples, galleries, stairways,  
 caeca, belvederes, lanterns, fountains, statues—  
 Fissures and cracks. Dampness resulting from a reservoir  
 situated near the sky ... High up a column cracks and its  
 two ends shift. Nothing has collapsed as yet. I can  
 no longer find a way out. I go down, then climb back up.  
 A tower.—*Labyrinth*. I never succeeded in leaving.  
 I live forever in a building on the point of collapsing,  
 a building undermined by a strange malady ... a  
 prodigious mass of stones, marble blocks, statues and  
 walls, which are about to collide with one another,  
 will be greatly sullied by that multitude of brains,  
 human flesh, and shattered bones.

Labyrinth is the writer preparing. "The labyrinth (as literary research) is a typical form of the nightmare," Barthes said.<sup>66</sup> Baudelaire compares this to tossing and turning in a bad sleep. You find no way out, simply exhaustion wearing you down, while the morning light begins.

At the same time, Baudelaire is returning to a very standard definition of labyrinth, clearly present in the Spanish Baroque of the seventeenth century: the large plaza "pell mell," as Jose Maravall explains.<sup>67</sup> The crowd as labyrinth whirls down upon a single spot from the four corners of the kingdom as in a plaza, a festival, a scripted event, as well as market day, or a crowded inn). In a parallel sense, Shelley sees crowded Venice as "a peopled labyrinth of walls."<sup>68</sup>

By the late nineteenth century, this definition of crowd as labyrinth merges with the hallucinatory city: Sherlock Holmes traverses the labyrinth of London,<sup>69</sup> as does Dickens (note 29). Gautier smokes "Piranesian" hashish in a

whirligig Parisian apartment.<sup>70</sup> Octavio Paz visits the labyrinthine Mexican neighborhoods of Los Angeles.<sup>71</sup> Joyce dissolves Dublin into a linguistic labyrinth.<sup>72</sup> Alienation by the crowd sheers away one's identity, layer by layer: The Situationist Ivan Chtcheglov takes the walker on a thoughtful drift (derive), unraveling "the hidden wonders in urban spaces."<sup>73</sup>

## Madness

Piranesi who regards each new building with terror, who climbs, who walks, who arrives, near to ceding to the inexpressible sadness of never arriving at the end of his suffering.

—Charles Nodier (1836)<sup>74</sup>

[Nodier's promenade through Piranesi's engravings] is now operating wholly in the mind, reinforced the ambiguity between the real world and the dream ... so as to undermine even the sense of security demanded by professional dreamers.

—Anthony Vidler (1992)<sup>75</sup>

Finally, the labyrinth becomes a pathology; an endless circuit inside your own madness. Labyrinths are reimagined as the mob streaming into the self, from Ahab's *Pequod*<sup>76</sup> to Musil's Vienna, to Pynchon's Vineland, García Márquez's Macondo, Bruno Schulz's haunted street of crocodiles; and onward through a thousand fictional mazes, often male fantasies,<sup>77</sup> particularly in noir crime fiction.

Thus, the term *labyrinth* has evolved in two directions—toward a psychological dissolve (literature), or toward a cheerful imprisonment (architecture). I wonder if the cheerful imprisonment helps you ignore the mad dissolve inside? At any rate, as early as 1622, this linkage between madness, scripted spaces, optics, and the labyrinth already was in place, as Baroque allegory, in a brittle antique entitled *The Labyrinth of the World*.<sup>78</sup> Labyrinth is the city, its system of ethics, its political bad faith, and the devil inside people. Labyrinth seems even fiercer than simply a metaphor, more like a metonym. It stands in for a discourse on power, about architecture and governance—but with a dark twist. The special effects it generates (by way of scripted spaces and literary metaphor) point toward a war between the senses and the prince, a disintegration of the self on behalf of optical illusion.

## Optical Illusions

The author of *The Labyrinth of the World*, Comenius, was a Moravian mystic who attacked Catholic special effects as a drift from grace. For him, optical illusions camouflaged sin. From that angle, Baroque moralism resembles movies like *The Matrix* recently: a labyrinth camouflages the evil that aliens have wrought.

Comenius begins his story with a pilgrim who is given mystic spectacles. But the lenses are cursed, ground by Illusion, rims hammered by Custom. Optical gimmicks were pervasive in many churches and theaters by 1622. Perspective could be accelerated or decelerated by tilting floors, narrowing walls, adding a deep focal point.<sup>79</sup> Special effects were featured on ceilings: trompe l'oeil, accelerated perspective, anamorphosis—to induce a moment of wonder—a “vertigo” when the lid of a building simply dissolved. To many, these phantasms were progress, practical advances. But to Comenius, they might be the serpent’s eye.

Indeed in *Labyrinth of the World*, the spectacles distort God’s nature. To quote Shakespeare, they are “almost the natural man ... [but] Dishonour traffics with man’s nature.”<sup>80</sup> They are a prosthesis upon the eye, as McLuhan would say.<sup>81</sup> To Comenius, they are an evil, not a cheerful global village. They make true distances vanish; ugly turns beautiful; black becomes white. However, luckily for Comenius’s pilgrim, these demonic spectacles do not fit properly. He can sneak looks below the rim, see the human labyrinth as it really is.<sup>82</sup> If this were film, I would call what the pilgrim finds beneath his spectacles Baroque noir, the town with no soul.

He enters a village market howling with cheats. In the bedroom, marriages turn into whorish disasters. Out in the fields, peasants are brutalized into lumpen stupidity. Universities, philosophers and scholars lie religiously, while alchemists prove as base as their metals. Doctors cure nothing, not even their greed. Lawyers are petty. Non-Christians are idolators; and Christians little better—carnal and barren. Government is crass, judges perverse. Knights love smut more than honor. Newsmongers—the writers—live only for scandal. And those without honors in this world, who must seek their fortune, collapse into despair.

Like Quixote testing his sweet madness—or poor *Simplicissimus*<sup>83</sup> inside war, or the nihilism forced upon *Candide* or *Rasselas*—another innocent pilgrim navigates through the labyrinth of *Human Folly*.<sup>84</sup> (As social critique in the seventeenth century, labyrinth was “the reign of false appearances and disorder.”)<sup>85</sup>

After many trials, the pilgrim finds hope at a palace governed exclusively by women, who seem free of phallo-sadism at least. To help them through an Estates General, King Solomon arrives, brings his retinue of brilliant advisers. But very soon, the labyrinth of bad faith wins. Solomon is disgusted by the folly of the Estates and leaves. Hundreds of beautiful women are sent to find him. They seduce him, destroy his faith. Then, while he slips into idolatry, his retinue, like the crew of Odysseus (another pilgrim in a labyrinth), are tracked like wild boar and horribly massacred.

That does it for the pilgrim. He has no hope left, is stricken with grief. He fumbles at the blind edges of the labyrinth. There he finds a room peeling with faded images of Prudence, Humility, Purity, and Temperance. At his feet, rubbish has been piled like a shipwreck, what remains of the machine of state. Ladders lay shattered, ropes torn, pulleys and docks smashed, cylinders dented. And yet, while stricken, on his last legs, he begins to discover Christ, finds his way to salvation. Protestant saints give him new spectacles, lenses ground by the Holy Spirit, rims inscribed with God's Word. He begins again, fully loaded now with "true" optics. He finds the invisible church and eternal light. He learns that God will be his shield, but only if he covets no property, is free of the labyrinth of human greed (folly).

## Conclusion: Labyrinths as Folly

...All actions of mankind are but a  
Labyrinth, or maze, so let your Dances  
be entwined ... Make haste, make  
haste, for this the Labyrinth of Beauty  
is.

—Ben Jonson<sup>86</sup>

Let us conclude by trying to synthesize this literary model with labyrinths as scripted spaces. Historically, in literature from 1600 to 1850, the word labyrinth often stood in for crowded human folly (with its pain); and special effects for political camouflage. Where do these links leave us today, when we enter labyrinths inside computer screens? Have the demonic glasses of Comenius gone digital? Or are computers the hopes of Baroque optics realized? The philosopher Deleuze left us one answer in his influential study, *Le Pli (The Fold)*,<sup>87</sup> a look into Baroque erosion (or introversion). Deleuze describes a

public and private culture mutually folded like blankets into each other, like the drapery on a Bernini statue. The large sculpture is condensed. Even the shocks from war and urban misery are twisted into tiny, microprocessed, organic universes, folded into spirochetes like Leibniz's monads.

Thus, the sum effect of this Baroque inversion is harmony—filled with ironic mixes, but harmony nonetheless. For a Nietzschean nihilist<sup>88</sup> like Deleuze, that passes for optimism (a splendid book). I am less optimistic, more a happy hostage about special-effects culture, trying to be a little hopeful—at least for the next few decades. However, from beneath the folds of our micro-data, I see fiscal disaster at almost every statehouse, an agonized class structure, Pax Americana as perhaps a Thirty Years' War, and an imperial presidency turning into monarchy. The software honeymoon has ended. What follows may not yet look as darkly obvious as Comenius's world during the Thirty Years' War, but then again, is that thirty years in Web time?

In short, across media (architecture, literature, cinema, computers) Baroque special effects are a political grammar as well. They are labyrinths that somewhere in their navigational meandering tell us how the hierarchy of power must be obeyed. *Today, the Baroque heritage (including the special-effects world) supports transnational power under the cloak of entertainment, particularly on the computer.* But let us not turn this into a cyberpunk nightmare. As I often say to students, evil wears a white hat and gives good lunch. We should be alert to its subtleties, not what it expects us to hate: the institutionally invented enemies, the cheap shots. But meanwhile, the erosion continues, as many novels and films remind us—of blurring matrixes and snowcrashes.

A Lab'rinth wild and obscure, to lose one's sense, A *Wilderness* of thick Impertinence.

—Jane Barker (1723)<sup>89</sup>

## 5. Burning Down Vesuvius: Late Baroque Gizmos<sup>1</sup> and Fiery Illusions, 1750–1780

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In 1750, Mount Vesuvius was built in Rome as ephemeral architecture, then erupted as fireworks.<sup>2</sup> In 1755, another miracle of wonder, another *meraviglia*, was built at the Piazza Farnese in Rome. Live animals were sculpturally placed atop a false tower for the annual celebration of China, honoring the feudal due of a white horse given each year by the King of Naples to the Vatican.<sup>3</sup>

Finally in 1776, to remove what was seen as an increasingly uneasy alliance, the China (another pale feudal remnant) was abolished<sup>4</sup> by Ferdinand IV of Naples. One of the last signs of papal dominion, it vanished during the fiscal crisis that sparked a revolt in Naples—on the year of Jubilee, at the ascent of Pope Pius VI to the Vatican throne.

In 1730, to honor the birth of the French Dauphin, a copy of the Pyrenees is set up along the Seine in Paris. Two “volcanoes” rise eighty feet high, with the goddess Iris straddling between them.<sup>5</sup> A false dawn rises behind her, then a rainbow. The effect was “easier to imagine than to describe.”<sup>6</sup> To describe them, “it is necessary to paint;” but for *Spectacle*, it is necessary to paint with actions.<sup>7</sup>

In 1746, Benjamin Franklin conducts experiments with electricity, using the newly developed Leyden jar (a primitive battery). For many, these experiments equaled his political achievements. His place in the history of special effects was assured. He helped initiate the craze for electrical illusion, particularly in Paris.<sup>8</sup> When he arrived at the French court in 1776, he was welcomed as the American Apollo.

In 1755, the Comédie Française produces Voltaire’s oriental drama, *The Orphan of China*, with so many accurate costumes and settings, the audience was forced to move back many rows. A bizarre and exaggerated interest in naturalism had taken hold of Parisian scenic design, particularly *le gout chinois*.<sup>9</sup> For decades, Voltaire remains a fierce supporter of special effects in the theater.<sup>10</sup>

In 1724, an artificial ruin is built near Audley's Castle in Ireland.<sup>11</sup> It is one of the first *folies* during a century filled with special effects as landscape: miniature kingdoms, castles, zoos, grottoes with shells, castellated rubble. They often were no more than an intimate facade, a home for ducks; but from a distance, they and the estate looked gigantic. The late Baroque follies made the garden an Artifice. Near the Chateau at Chantilly "plastic cutouts of trees" were added next to a real forest, "to shut out reality."<sup>12</sup>

Baroque special effects reach a heyday after 1750. Their markets expand as far as China, even Japan.<sup>13</sup> And yet, Baroque theatrical effects clearly "looked" extremely retro—very ornate, laden with creaky feudal hierarchical references. They were a glance backward, to the courtly seventeenth century. Perhaps that is why they were singularly ignored by the High Enlightenment, barely a word, a few plates on automata<sup>14</sup> in Diderot's *Encyclopédie*, even less written about theatrical illusion by Rousseau, Kant, Hume, except as crafts behind the stage, not much as theatrical illusion. Only La Mettrie<sup>15</sup> and Franklin<sup>16</sup> refer to special effects very much at all.

There are exceptions. In England, Dr. Johnson often visited "scientific" theatricals, then ignored them in his vast correspondence; as did Boswell. Jonathan Swift lampoons theatrical effects in his chapter on the flying island of Laputa. Hogarth caricatures "false perspective." Generally, not until early Romanticism do we find a literature about special effects once again—the Baroque as decay. After 1780, "the moment of wonder" turns a bit acrid, in stories about necromancers and the Gothic. Baroque effects suddenly look grizzled, corrupted by waning feudalism and superstitious pageantry.

The seventeenth century had been quite different, of course. Descartes, Hobbes, Leibniz, Galileo, Newton, even Locke felt compelled to discuss "Wonderment" and Artifice. But much of that had disappeared by 1750. Even theories of Magick Science and the Neoplatonic no longer required special effects (Artifice). Platonic "chora" tended to point more toward mathematics and *techné*, to nature as machine.

On the other hand, special effects shifted ideologically. In pamphlets and advertisements, particularly in England, the language of feudal culture was pruned away, to serve a more exclusively bourgeois audience, in popular recreations away from court. Special effects join an expanding entertainment culture in growing cities like Paris, London, Rome—at theaters along business streets, at fairs, even at brothels, in the home, at *spectacles pyriques*, "radiant tableaux combining fireworks, dance and music."<sup>17</sup>

They eventually parallel the bourgeois aspect of the Salon Arts as well, pieties about family and commerce; but mostly after 1789, if not 1780. In French “scenic” wallpaper, updated during the Empire by the Dufour Company, a sprawl of panels emphasize “sensibility” more than *quadratura*, more about bourgeois seduction than courtly power; about cultural relativism, an anthropological” impulse. But mostly, they suggested bourgeois imperialism: noble savages posed like oranges ready for harvest.

From 1750 to 1780, Baroque effects were considered holdovers from an old marriage. Imagine two species of Enlightenment, rival cousins from the same great-grandfather. By 1750, special effects were the annoying old-fashioned cousin, *the Baroque style of Enlightenment*. They were old parlor “magick” upgraded to the Enlightenment science, a cabinet of curiosities stuck inside the scientific “cyclopedia.” Most of all, Baroque effects were a retro modernity, a 1650 version of the Enlightenment, now quaintly upgraded for 1750. Part of the Gothic revival we still find in Raspé’s *Adventures of Baron Munchhausen* (1785), or even Shelley’s *Frankenstein* (1818); and finally, like something alive but forgotten in the basement of Rotwang’s robot in Metropolis. I even find essence of Baroque Magick upgraded on TV, as secret science on the X-Files alien abductions, haunted ancient technologies. But more on that later on.

For now, I fill a room with illusions from this period, 1750 to 1780. I line up my files, mostly about special effects from England, France, and Italy after 1740: fireworks; ephemeral architecture; automata; puppetry; early panoramas; early arcades; scientific and optical toys; theatrical machines; grottoes; Swift, Sterne, Hogarth, Voltaire, Diderot, Lessing, Johnson’s gloomy reactions to special effects; the gothic architectural *vedute*; the phantasmagoria of Boullé; “picturesque” gardens designed by Sir John Van Brugh and others;<sup>18</sup> the growth of opera; early consumerist entertainments; wallpaper—the shift toward ornament away from scripted spaces. I also have stacks on the Americas, mostly colonial Mexico, and the fledgling U.S. But if this were a detective story I would be studying a dime that no one wanted to notice.

Special effects leave almost no hint of impending revolutions, neither industrial nor political—even after 1789, except perhaps the marching-band pageants for Reason in revolutionary Paris, and the somber carnivals for Napoleon. They are confabulated reminders of a fact very much alive in 2003, that storm warnings are not always that clearly observed. Institutional supports may wither, but entertainment goes on. Special effects are a history of how to ignore the weather.

## Automata: Machines that Breathe

Life is but a motion of limbs, the beginning ... in some principal part within ... (Why not say then) that all *automata* (engines that move by springs and wheels as doth a watch) have an artificial life? For what is the heart, but a spring; and the nerves, but so many strings; and the joints, but so many wheels, giving motion to the whole body, such as was intended by the Artificer (God).

—Thomas Hobbes, 1651<sup>19</sup>

The automaton is the most widely discussed carryover from the Baroque after 1750. Earlier, Leibniz provided the classic summary. He tried to unify what Descartes saw as an innate split between the natural and Artifice.<sup>20</sup> For Leibniz, each living thing is animated through both a “natural” (as in the body) and an “incorporeal” automaton.<sup>21</sup> When these two mesh their gears, the “divine” machine is set in motion. This machine individuates each person, a kind of theoretical genome. It also contains all (the monad). He likens this process to the brass wheel buried inside an artificial automaton. It seems so abstracted, yet in a monadic sense that wheel turns to generate movement.<sup>22</sup> Thus, even the artificial machine contains the germ of the sentient and the universal.

However, from 1720 onward, that vital force grows even more amazingly artificial. Beginning essentially with master designers like Vaucanson or the Droz family (father and son), hundreds of improved clockwork creatures were featured across Europe. They moved strangely, even seemed to breathe. Vaucanson’s famous duck could swallow, digest, then take a decorous shit. Droz’s most famous automata played music or wrote words. In Paris, (1847), the magician Robert Houdin featured Antonio Diavolo, a startling trapeze automaton operated like a puppet by pistons and pull-cords offstage.

In Vienna, Friedrich von Knauss built a mechanical theater with three speaking heads, a musical android that played six melodies; and four writing automata. In his dock *The Horsemen* (circa 1750), metal curtains open to reveal “five levels” of “Baroque colonnades and emblems in stone-work.”<sup>23</sup> Inside, two armies of metal horsemen face off. They “joust” while the upper level of the clock “plays martial music.”<sup>24</sup>

Throughout western Europe, Baroque toys became a sub-industry, dominated by clockmakers. A toy figure would be attached ingeniously to a hidden metal column. This column then turned a sequence of pins and notched cams. It triggered the levers that timed the flutter of birds, bears, dancers,

courtiers, like animated hood ornaments. The most renowned “toys” tended to be humanlike: mechanical flute and piano players; or still lifes as sculptural machines—severed metal hands that wrote words. The most famous of all, of course, was Von Kempelen’s mechanical chess player (1769) that went on to defeat Benjamin Franklin (1783), even Napoleon (1809),<sup>25</sup> and Charles Babbage (1819).

Was this a transition from Artifice (Baroque) to Natural Harmony (Classicism)? Or a continuation of the discourse on Artifice itself? These were not “thinking” machines. They were parodies of the courtier. They were mobile and fragile, not at all instruments of state; they were parlor tricks, symptoms of a world dying off slowly, in style, breathing artificially.

Clearly Diderot brushes on these questions in his *Conversation with D’Alembert* (1769).<sup>26</sup> Is a statue a sentient thing, D’Alembert asks? Can flesh be carved out of stone? Similarly, Diderot wonders if statues that move make us think about our five senses. What animates life, if an animal is an automaton, as Descartes has said? To touch a statue that looks like flesh is a special effect. It sends a slight chill through us. We think of our skeleton, of our body as simply a machine, or carved in stone.<sup>27</sup>

Late Baroque effects are indeed Cartesian. They emphasize the boundary between bodies and sculpture, then between stone and machinery. Descartes was fascinated by the hydraulic special effects at the Royal grotto in the suburb of Saint-Germain en Laye.<sup>28</sup> The sculpture seemed to speak and wonder out loud. Sound, texture, and sight became his boundaries for discovering the human automaton; also the boundaries of “wonder,” or the marvelous (a term that finds its way finally to the Surrealists, very much as that automatism that is human and sculpture /machine). Special effects were the bridge between Enlightenment materialism and Romantic introversion, a bridge over water, and peopled by sculpture. Even seemingly hard-nosed materialists like La Mettrie or Condillac lead easily toward the Cartesian Baroque as Romanticism in *Frankenstein*, *The Sandman*, or the tales of Poe. The machine has a body; the body cannot decide where its humanity begins. That is essentially what Diderot is suggesting.

A few species of the machine as body:

<b>Baroque Automaton</b>	Clockwork that imitates life; “magical” workings inside, actually cams around a shaft.
<b>Romantic Imaginary Automaton</b>	Perverse (even erotic) machine that resembles human flesh, but is not human (Hoffmann, Mary Shelley).
<b>Industrial Toy</b>	The nineteenth-century mass-produced automaton, generally for children; repetitive motion; simple bodies from molds; also the mechanized doll and puppet; and digitized toys (in the nineties: Tameguchi, Dogz, bots).
<b>Imaginary Robot</b>	1920s; industrial golem who cannot think, only work; in American movies since the fifties, robots cheerfully serve as butlers and nannies.
<b>Industrial Robot</b>	“Reprogrammable, multifunctional manipulator designed to move materials, parts, tools or specialized devices through programmed action.” <sup>29</sup> Used in factories; no body, only housing, essentially an environment.
<b>Digital Control and Feedback System</b> <sup>30</sup>	Monitors people’s movements and decisions by using face recognition, miniaturized video cameras, chips in cell phones; becomes a prosthetic space that people wear like a membrane, at work, when shopping.
<b>Imaginary Cyborg</b>	Loyal robot, but emotionally divided; digital workings inside, with bionic flesh outside; memory industrially made, but often unstable; feedback as thought.

<b>Cybernanthrope</b> <sup>31</sup>	A term from philosopher-sociologist Henri Lefebvre. People who are cybernanthropes wish they were machines, and thus lose much of their humanity.
<b>Android</b> <sup>32</sup>	A machine as humanoid. In science fiction, androids can mix unnoticed among humans inside the city.
<b>Cellular Automata</b>	Computer processors arranged in a lattice, following a program of transition rules, to reenact problems in physics, biology, astronomy.
<b>Avatar</b>	A digital body that can be assumed by a player in a game, and then animated; “your body double in cyberspace.” <sup>33</sup>
<b>Walking Avatar in real space</b>	People absorbed by cell phone or GPS satellite; their body leaves real space while it walks.
<b>Smart rooms and houses</b>	Invisible butlers in real space: inputs using cameras, microphones, sensors, to recognize and interpret human movements; the body joins the vapor of inputs.

With so many “species of robot” to choose from, it is hardly a surprise that since 1990, literature on eighteenth-century automata has grown considerably.<sup>34</sup> But as I review histories of automata, the same sources tend to reappear, mostly from Romantics. Those were, after all, the touchstones in their day, how the automaton was remembered during the nineteenth century, first through interpretations by Goethe, Kleist, Hoffmann, onward to Poe, Baudelaire. And then, into the twentieth century: the automaton rediscovered as *Ballet Mechanique*, as psychotropic allegory, mostly after 1920; in critiques by Lacan, de Man, the Surrealists, Bellmer, Duchamp.<sup>35</sup>

Thus, automata are understood today not that differently than in 1830. In that sense, memory has stood still. Automata were late Baroque gizmos as Enlightenment entertainments, frolicsome proof of La Mettrie’s *Man a Machine* (1748), where machines instead of men walk the earth. Automata were the products of disappearing petit bourgeois craftsmen, manufacturing before the factory. They were interim creatures, atavisms and hauntings from the Baroque during the Enlightenment, fetishes that help explain the transition between 1750 and 1840.

On the other hand, these clockwork gizmos also reinforced what remained of Baroque alliances. Automata were prized at the princely courts, as if a new

“benevolent” feudality were about to begin. They were designed very much as gaudy tokens for the noblesse, as nostalgia for the etiquette of seventeenth-century magic, like fireworks and lavish docks, like ornamental time. To be honest, that leaves no consistent path for these toys inside the standard Enlightenment historiography.<sup>36</sup> Automata do not hint fiercely at factory industrialization or the French Revolution to come, or the scientific revolution, for that matter. They proved scientific method by debasing it, turning it into cheap tricks for the wealthy. For theater you find a stronger case. Certain disaster plays clearly prophesy something like the Revolution. In some Parisian plays by 1770, audiences watch palaces go up in flames, like a preview of the French Revolution to come. For a good bourgeois seat, you pay twenty-four sou; for standing room among the mob, you pay only two sou.<sup>37</sup>

By contrast, these gizmos from 1760 simply enhanced the clock mechanisms of 1660, a continuity of sorts: hairlike brass cads that choreographed childlike bodies, or brought forth astrological bellringers from inside cathedral clocks. Unlike the paintings of David, Chardin, Gainsborough, even Fuseli, and others, the automaton copied an aristocratic style—very ornate, laden with Baroque hierarchical references. They were an ironic look backward; and yet, perversely enough—at the same time—highly advanced, clearly bourgeois, brilliantly engineered, preindustrial. The automaton undoubtedly helped pioneer the fascination for industrial machines—but not by designers’ intent. Perhaps more intentionally, it helped establish the route that entertainers would take in the birth of the entertainment economy after 1790. The tech of automata was sneaking in-to more than just vaudeville acts.

The *Encyclopédie* features Vaucanson’s aristocratic duck as both entertainment and industry in part because Vaucanson also does practical bourgeois work: he designs “automatic” silk looms. Swift sends Baroque special effects aloft, but as the dreamy island of Laputa. Gizmos seemed a fading remnant from 1650, before Newton—more like Cyrano on the moon—before the commercialism of the eighteenth century, before sugar and coffee become popular at coffeehouses. As late as 1780, Baroque toys were hawked mostly for the bourgeois who wanted a touch of the aristo, as if for Baron Munchhausen. The fact that these gizmos could be easily adapted to bourgeois markets, even to factories, was barely noted, even by Diderot.

## The Ephemeral Late Baroque

There was clearly a late Baroque for special effects. It has been generally ignored by histories written after the French Revolution. It was more like a bourgeois Baroque. From 1740 to 1780, during an era of growing confidence among the middle classes, the message of scripted spaces was ideologically shifting. While they still were identified with the prince, they enter the applied arts more than ever: as Rococo interiors after 1710; as entertainments for wealthy merchants and city gentry.

But as outdoor pageantry Baroque scripted spaces are on the increase after 1730. They still speak for the prince much as they had a century earlier. Not so for interiors: the fashion for gaudy palaces slows down. Thus the ephemeral replaces the permanent scripted space—more *folies*, fireworks. The aesthetic of ephemera transforms much of the discourse around special effects; it shifts away from Neoplatonism—away from Artifice and Natural Magick.

## Flaming Kisses

However, this aesthetic shift was highly ambivalent, does not classify easily. The “later” version of Baroque discourse does parallel what took place in the salon arts, but much more slowly, and unevenly. Special effects do respond to bourgeois theories on the sublime, but only later on, after 1780, and less consistently. Gradually, they feature bourgeois seduction more than princely power, no longer heralding feudality and hierarchy. That courtly fashion, so essential to Baroque special effects in 1650, all but vanishes. But the “fragrance” lingers. Baroque gizmos are still marketed as aristocratic toys, even while many of them are remodeled as bourgeois entertainment.

We could strengthen the case for a bourgeois Baroque in special effects. I could refer to Kant’s theories on space, his rejection of Neoplatonism, his desire to integrate Enlightenment science with waning feudal metaphysics. For 1740, the Rococo interior might fit as well—how the scripted space devolves into a more seductive and sublimated *fête galante*. We could recruit Watteau, Fragonard; but just as easily recruit the history of wallpaper, and wind up with something quite different.

However, my files point toward an equivocal story for 1740–1780: it is neither the death nor rebirth of the Baroque. That is why I call it a world parallel to the Enlightenment. Baroque special effects are an ancestor to the En-

lightenment, but already a species apart. The architectural tricks (*trompe l'oeil*, anamorphosis, immersion) remain staunchly aristocratic. They mostly elude the Enlightenment after 1740, while the gizmos still repeat much of the language of the clockwork Baroque. I could make the historical elements almost fit, but I would be constructing an erasure. For example, from 1740 to 1780 in France, neither the philosophes nor Rococo salon artists lean much on special effects. Artifice was transitioning.

After 1780, the transition is much clearer. In place of (Baroque) “theatricality,” as in painting, a turn toward optical absorption more than (princely) immersion. Scientific gimmickry takes over. By 1790, a broad shift in special effects can be seen, but still in early stages. Special-effects manuals borrow directly from the Enlightenment, but also from the occult wizardry. The authors have read Diderot and Voltaire, but also love “Popish” Natural Magick. This is a golden age for popular hoaxes; and fake cures for everything. Nor does post 1790 mass culture simply favor the lower classes. It cheerfully sells to both high and low; from modiste salons to pubs irradiated by the smell of cock fights. Bourgeois “wonder” is always like that, a guileless blur of the snob and the slob in the same breath. Hollywood celebrity would be much the same, from the mid-twenties on.

In 1792, an *Encyclopedia of Amusements in the Sciences, Mathematics and Physics*<sup>38</sup> appears in Paris. It clearly was assembled with Diderot’s *Encyclopédie* in mind, even down to the accompanying volume of plates. The Natural Magick of the seventeenth century has been replaced, none of the Neoplatonic verbiage or courtly jargon. But the mood is decidedly escapist—not a hint of the Revolution anywhere. When I turn to “electricity,” the tone shifts toward old Baroque jargon—about the marvels of electricity” “the spectacle that astonishes.”<sup>39</sup> In lavish detail, it teaches you more than fifty parlor tricks using electricity. My favorite is “the flaming kiss” (*baiser enflammé*): Place a “delicate” jolt of electricity on your lady’s lips. It will send little shockwaves of delight into her. Frankly, the technique suggests a man’s “hobby”. The article also shows you how to keep electricity going in your glass rod (*étincelle piquant*). That way, you can blow up a luminous bottle.<sup>40</sup> Or explode an animal.<sup>41</sup> Make a bouquet with magnetized shavings.<sup>42</sup> Set your hair on end.<sup>43</sup> Or dance objects in midair. With parlor tricks, we are not looking squarely at the Enlightenment, nor the Revolution. Instead Baroque illusionism is turning toward mass entertainment, entering popular recreations. It joins an early entertainment culture that suits the growth of cities like Paris, London, Rome.

## Afterward: Overlaps After 1780

The imitator goes on exaggerating greatness into monstrosity, wonders into impossibilities.

—Gotthold Lessing<sup>44</sup>

The Baroque scripted space is not a form of *ornamentation*, not as ornament was understood by 1790. *Ornament* did not suggest a navigation through perspective awry. It meant patterning, without pauses and accelerators—an interior nocturne. Thus, throughout the nineteenth century, ornament is the steady erasure of space, until at last with Cubism, the space disappears altogether. Ornament is an engine for abstraction, even for Art Nouveau. When Adolph Loos heaps damnation on ornament, as “the sadism of the eighteenth century,”<sup>45</sup> he is simply emptying his spaces of the compression brought on by abstracted, ornamental, anti-architectural logic. He frees his architecture from ornament, to make it a blank slate for new scripted spaces. He replaces the ornamental store window, the facade, with something like the scripted, immersive department store.

During the same period, after 1780 (even earlier), the memory of Baroque special effects already increasingly signifies decay, from Edmund Burke on the sublime as terror and pathos (1757), to Nietzsche defining the Baroque as “the ugly sublime,” to Wölfflin seeing the Baroque as the decay of the Renaissance.<sup>46</sup> Even Walter Benjamin’s resurrection of the Baroque is filled with nocturne and decay, a seventeenth-century birth of tragedy as the birth of the modern.

In English Gothic novels, this obsession with Baroque decay often becomes the stirring, special-effects climax, when Baroque magic resolves all the “horrid foreboding, like a nightmare of the heart” (1820).<sup>47</sup> In Goethe’s *Faust II* (Act 1), the devil brings “the [Baroque] fire and flames trick”<sup>48</sup> to entice the Emperor. In *Frankenstein*, special effects (both Baroque and panoramic) are reenacted by the creature, as he awakens to his first sight of the moon:<sup>49</sup>

Soon a gentle light stole over the heavens and gave me a sensation of pleasure. I started up and beheld a radiant form rise from the trees. I gazed with a kind of wonder. It moved slowly, but it enlightened my path ... On all sides various scents saluted me; the only object that I could distinguish was the bright moon, and I fixed my eyes on that with great pleasure.

In England, museums by clockmakers valorize the end of Baroque special effects. John Joseph Merlin's Mechanical Museum fascinates the young Charles Babbage, who later purchases a dancing automaton, the Silver Lady, and repairs it while he works on the Difference Engine.<sup>50</sup> James Cox's museum of automatons is visited by Mary Shelley weeks before beginning *Frankenstein*.

Architect John Soane turns his house into a Baroque reliquary and museum (mostly 1792–1806). He adds trompe l'oeil tents to two rooms, turns his vast library into a cabinet of curiosity, builds a Gothic monk's parlor and a Baroque "Pendentive" dome as deeply layered in miniature as anything Pozzo could have imagined. In the century that follows Soane's work, many others will design "visionary" special-effects houses as well—homages to the lost Baroque, most notably King Ludwig of Bavaria, whose schizotropic castles, 1868–1886 (Neuschwanstein, Linderhof, Falkenstein) obsessed Walt Disney.

But Soane lived so much nearer to the source. He met Piranesi. He was addicted to comprehensive research. He had a magnificently subtle feel for lighting and new building materials. His use of theatrical and spatial effects was encyclopedic. Then he gathered all of these illusions under one principle, like his tricks with mirrors into a single mirror. "He passionately admired Gothic effects, and tried to bring them within the capacity of his style. Gothic effects and Picturesque effects were to him synonymous."<sup>51</sup> Soane comes the closest to inventing a new grammar for these fading Gothic Baroque phantasms.

Finally (very final), the fiercest corrosive of Baroque special effects was commerce itself. Throughout the eighteenth century, new materials for trompe l'oeil in the home developed, mostly to make the copies easier and more profitable. Better wallpaper copied drapery, which in turn was matched by better stenciling that copied wallpaper. Papier-mâché (or "chew'd paper")<sup>52</sup> could be molded into any ornament, any sculptural inlay. Intarsia, the Renaissance art of trompe l'oeil wood inlay and mosaic, now could be copied with cheaper materials. Floorcloths could simulate fine carpets. Stamped tin looked like hammered brass or copper ceilings. The nineteenth century would improve on cheaper, more durable copies; and the twentieth century became the age of Formica.

So, while the Baroque looked decayed after 1780, the neoclassical often looked degenerated—and fetishistic. By citing fetishistic (kitsch) copies of Baroque special effects, Veblen's<sup>53</sup> theories of conspicuous consumption trace the jump toward mass-produced modes of the copy. The commodity fetish began its marriage to special effects with shrunken-down toys for the home. In Adorno's words, the copy began "the domination of abstract equivalence

through self-made concretion.”<sup>54</sup> Better to deceive oneself with “illusions of the concrete ... than abandon the hope that clings to it.” Small replicas for the home project “opaque human relations onto the world of things.” They are miniaturized copies for children to play parents, and hot tubs as Versailles for their parents. One process leads to both of these: when kitsch replaces Baroque special effects in the home—during the early nineteenth century, at the beginnings of the industrialization of desire.

## Wallpapering Polynesia

In 1806, Joseph Dufour produces wallpaper that copies drapery. Then stencils are designed by competitors that copy Dufour. Also in 1806, the Dufour company makes a splash at a trade show with their *papiers panoramiques* (also called “scenic papers” or “paper without ends”). Panoramas spanning 360 degrees were already very much the rage. Dufour responds with theatrical illusions featuring light similar to work by Carmontelle and de Louterbourg (and the tapestries of Bucher and Fragonard). But most of all, he was reacting to the popularity of Rousseau as anthropologist. Dufour filled his rather stiff but stately panoramic wallpaper with noble and ignoble savages in exotic locales, from Polynesia to the Incan Peru to the Bosphorus, to scenes from *The Odyssey*; or Chateaubriand’s frontier America in *Paul and Virginie* (1820), “a magical and new effect in wallpaper.”<sup>55</sup> Possibly their greatest triumph was the *Sauvages de la Mer Pacifiques*, a *panoramique* in twenty vertical panels<sup>56</sup> about Captain Cook’s voyages to Polynesia, even including various murders, and Cook’s death along the way, and unspoiled Polynesian harmonies under the shadow of a volcano.<sup>57</sup> These wallpapers were something of a culmination, Rousseauism set in cheerful theatrical lighting. Their harmonious panels, with trees at the edge to make installation easier, echo the popularized picturesque. Be in harmony with nature while dining by the garden. See “savages” act out racist myths, especially of Captain Cook murdered by cannibals. Savor the fragrant effects of neo-imperialism.

Steadily, with each decade, more special effects as wallpaper are made for the home. By 1850, Philipon, the publisher of Daumier and Doré’s caricatures—but also the son of a Lyon wallpaper manufacturer—would reprint their cartoons as wallpaper. They were a bonus for subscribers, a jittery wall of gags and poses, like animation frozen—awaiting the arrival of cinema.

Also around 1780, the circus big tent became another reliquary of sorts for Baroque special effects, now that Baroque illusion no longer served the prince. After 1777, along with the first panoramas (1787) and the first balloon flight (1783), a retired cavalryman, Philip Astley, developed the first “modern” circus in London. At first, Astley’s was only a summer theater. His premier acts were mostly equestrian, mixed with short burlesques. There were human pyramids, an apiarist who rode with a swarm of bees on his face, a rider who could leap through the body of a hackney coach suspended twelve feet in the air.<sup>58</sup>

By 1823, Astley’s had grown into the largest theater in London. The irony in all this is that Astley’s also specialized in melodramas, that new form of opera where the characters did not sing. Both worlds coexisted on the program—Baroque equestrian fantasias, *harlequinades* (clowns), Baroque music hall, and industrial (anti-Baroque) melodrama that had evolved out of Goth-ics. The line, between the two remained thin, and still equivocal.

## Potemkin Villages

Lev Manovich, in his groundbreaking study *The Language of New Media*, begins his “archaeology of film compositing” (the basis of movie special effects) in Russia at the end of the eighteenth century. Catherine the Great’s first minister and lover, Potemkin, had a series of fake villages built, with pretty facades facing the road—to give Catherine the illusion, when her carriage passed, that her peasants lived well. Manovich compares Potemkin villages to nineteenth-century panoramas, and then to “a much more effective technology for creating fake realities—cinema.”<sup>59</sup>

The decline of Baroque illusion had taken on a perversity similar to the remnants of feudalism that were about to crumble throughout Europe.<sup>60</sup> Marie Antoinette’s architect Mique builds imaginary feudal poverty to play in—a false, weathered peasant house at Versailles, with all the conveniences of royalty inside.

Potemkin villages were a new mode of special effects as power, as the erasure of memory in the late eighteenth century. But the principle evolves beyond one’s wildest imagination. All movie sets are Potemkin villages before they are shot as film. And all wars since 1989 have become Potemkin villages when they appear on global media. And yet, Baroque special effects already pointed toward this problem by 1650, that Baroque illusion served uneasy alliances to cover up the decay and misery of the kingdom.

Most of all, the decay of the Baroque marked a turn inward, toward interiors at the home, and toward what came to be called the unconscious. With each generation, from the Romantics forward, the subject becomes more internalized, much the way the automaton and the puppet are joined in fantasies that become darker, more about the passages between life and death, the flesh and the stone. *Trompe l'oeil* becomes a body lost between the organic and the inorganic, between decay and never being born. Internally, we are a puppet's body, Heinrich von Kleist suggests (1810), where "a paradise is locked and bolted, and the cherubim stand behind us. We have to go on and make the journey round the world to see if it is open somewhere at the back."<sup>61</sup>

By 1816, that journey has entered a new stage of curiosities. In London, at Piccadilly's Egyptian Hall, stuffed rain forests compete with Napoleon's carriage from Waterloo. At Baker Street, Madame Tussaud's waxworks deliver the great and the ghastly, like prisoners of war.



**Part II. Building the Unexpected:  
Industrial Fables as Special Effects,  
1780–1964**

# The Mirror

OF

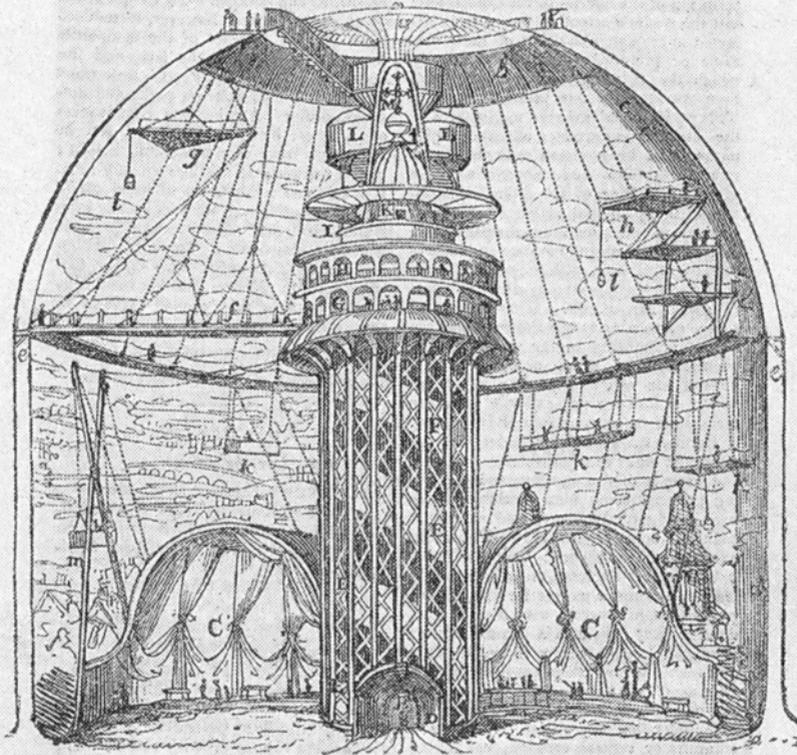
LITERATURE, AMUSEMENT, AND INSTRUCTION.

No. 356.]

SATURDAY, FEBRUARY 14, 1829.

[PRICE 2d.

## Interior of the Colosseum.



*References to the Engraving.*

- A. Column or Tower in the centre of the building, for supporting the Ascending Room, &c.
- H. Entrance to the Ascending-Room.
- C. Saloon for the reception of works of art.
- D. Passage leading to the Saloon, Galleries, and Ascending-Room.
- E. F. Two separate Spiral Flights of Steps, leading to the Galleries, &c.
- G. H. I. Galleries from which the Picture is to be viewed.
- K. Refreshment-Room.
- L. Rooms for Music or Bells.
- M. The Old Ball from St. Paul's Cathedral.
- N. Stairs leading to the outside of the Building.
- a. b. Sky-lights. c. Plaster Dome, on which the sky is painted. d. Canvass on which the

part of the picture up to the horizon is painted. e. Gallery, suspended by ropes, used for painting the distance, and uniting the plaster and the canvass. f. Temporary Bridge from the Gallery G to the Gallery e, from the end of which the echo of the building might be heard to the greatest advantage. g. One of Fifteen Triangular Platforms, used for painting the sky. h. Platforms fixed on the ropes of the Gallery e, used for finishing and clouding the sky. k. Different methods for getting at the lower parts of the canvass. l. Baskets for conveying colours, &c. to the artists. m. Cross or Shears, formed of two poles, from which a cradle or box is suspended, for finishing the picture after the removal of all the scaffolding and ropes.

Mr. HORNOR, in his colossal undertaking, has "devised a mean" to draw  
VOL. XIII. H

us out of the way; and a successful one it has already proved. As a return for

# VENICE!

## MORNING & EVENING EXHIBITION.

**Under the Patronage of the Emperor and Empress  
of Austria, the Kings and Queens of Bavaria,  
Holland, and Prussia,**

(whose Signatures may be seen in the Royal Album, in the Exhibition-room).

This, the most interesting City in the world, from its magic position in the midst of the waters, from its history, its legends, and from the halo that genius has thrown over it,—this, the city of Shylock and Othello, is now represented as exactly as it is possible for human patience, ingenuity, and skill, to represent reality. Four talented architects, assisted by several artists, have, by the assiduous labour of fourteen years, and at the expense of nearly two thousand pounds, produced the model of the entire City of Venice, upon the scale of one 540th part of its real dimensions. In viewing this surprising work of art, containing the faithful copy of every object, however minute, that Venice presents, the spectator may indeed exclaim with Childe Harold on the Bridge of Sighs,—

*“ I see from out the wave her structures rise,  
As from the stroke of an enchanter’s wand.”*

**102 Churches  
122 Towers  
340 Bridges**

**135 Large Palaces  
927 Smaller Palaces  
471 Canals**

AND

**18,479 Houses, are represented in the Model.**

THE MODEL IS NOW OPEN TO THE PUBLIC AT THE

## EGYPTIAN HALL, PICCADILLY,

FROM 11 IN THE MORNING TILL 10 AT NIGHT;

*With brilliant effect of Sunshine produced by a new arrangement of the Oxy-  
hydrogen Light.*

**ADMISSION ONE SHILLING.**

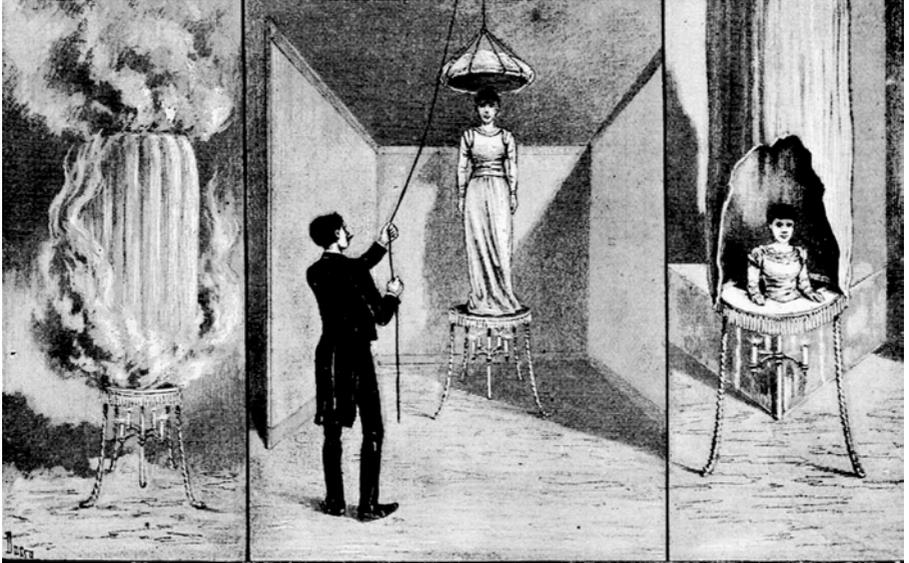
Printed by H. RICHARDS, Bridges-street, Covent-garden.

Venice Panorama, 1850.

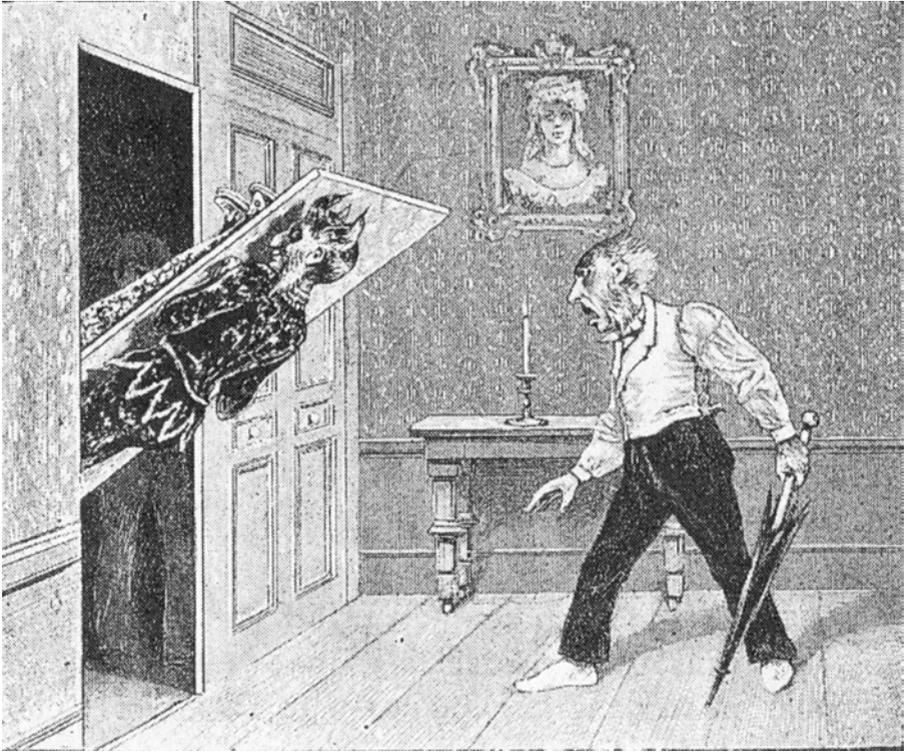


*Bird's-eye view of London, from inside the Colosseum—presumably over twenty miles deep on a clear day.*

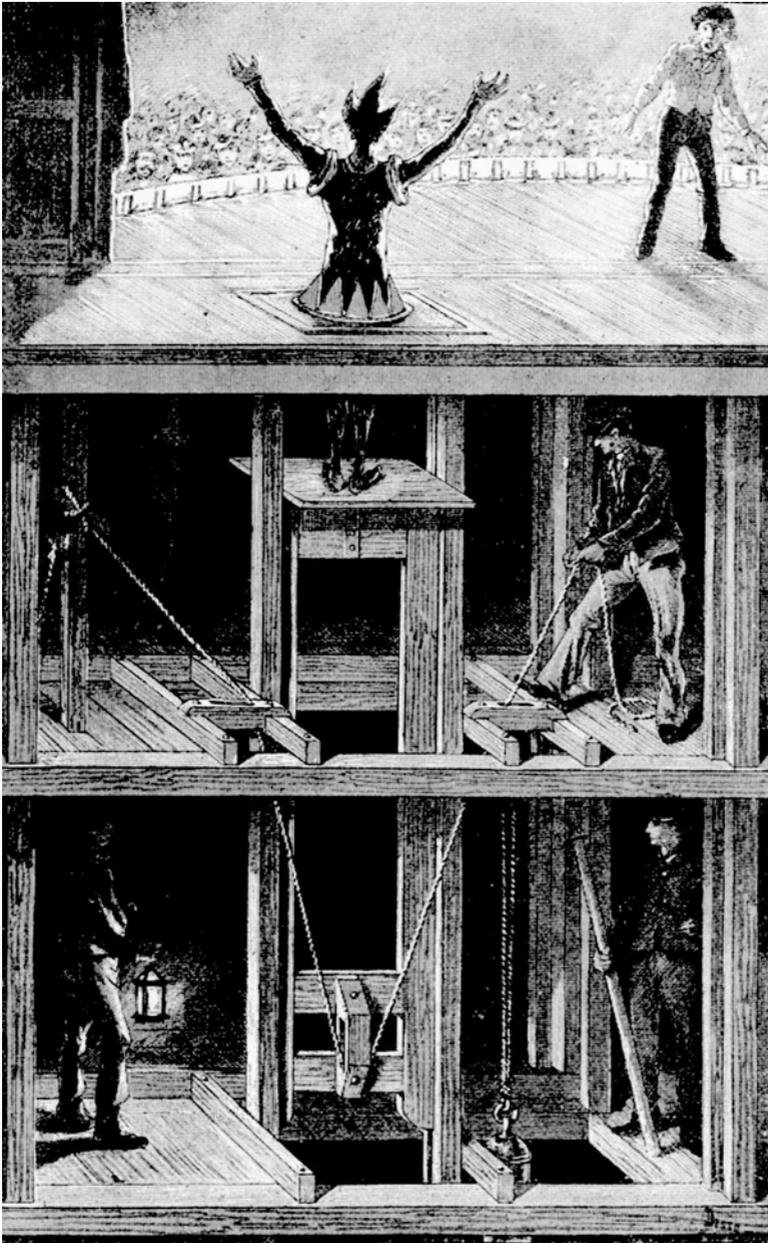
## Nineteenth Century Tricks (trucs)



*Incinerating a woman on stage.*



*Substituting clowns or ghosts.*

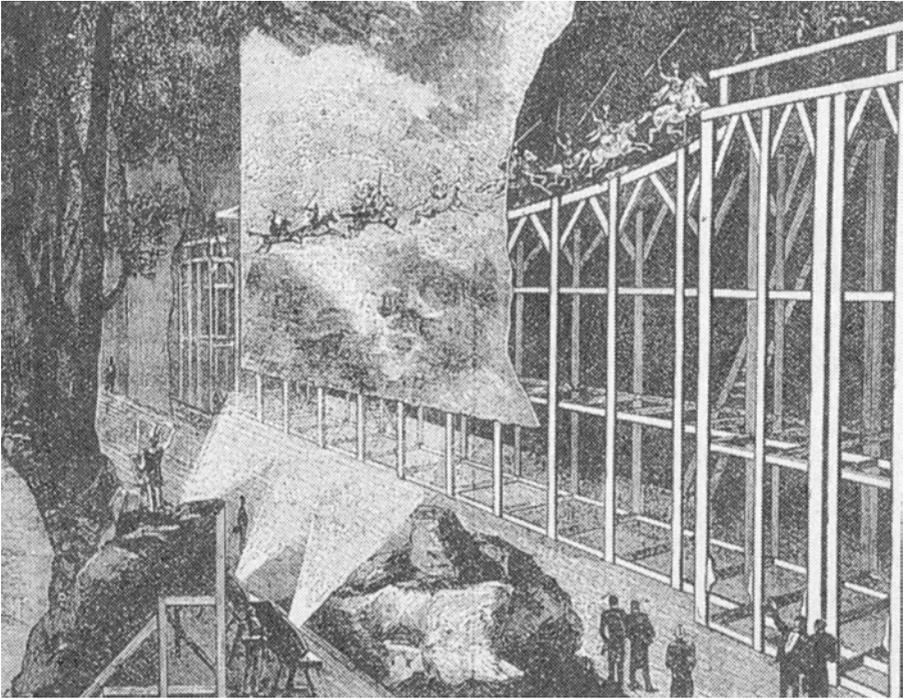


*Raising the Devil.*

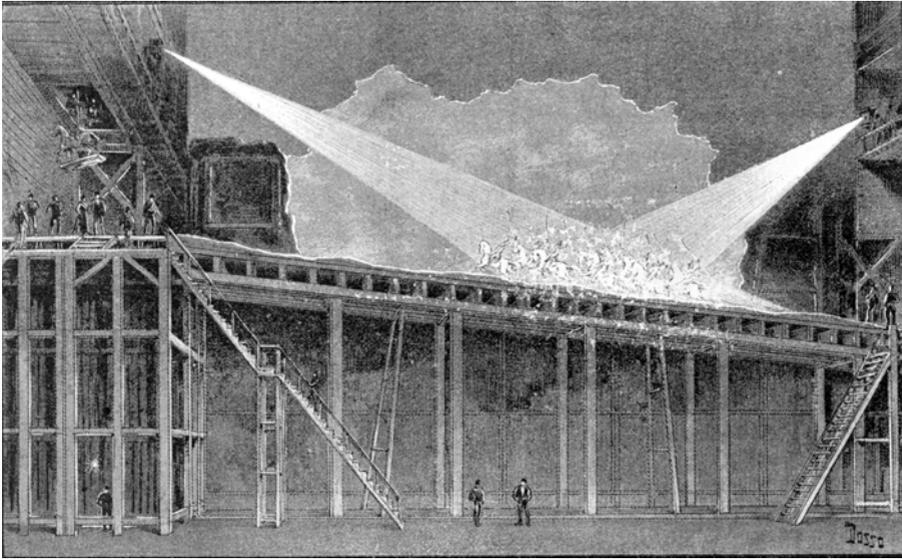
## The Paris Opera circa 1889



*Wagner's Ride of the Valkyries.*

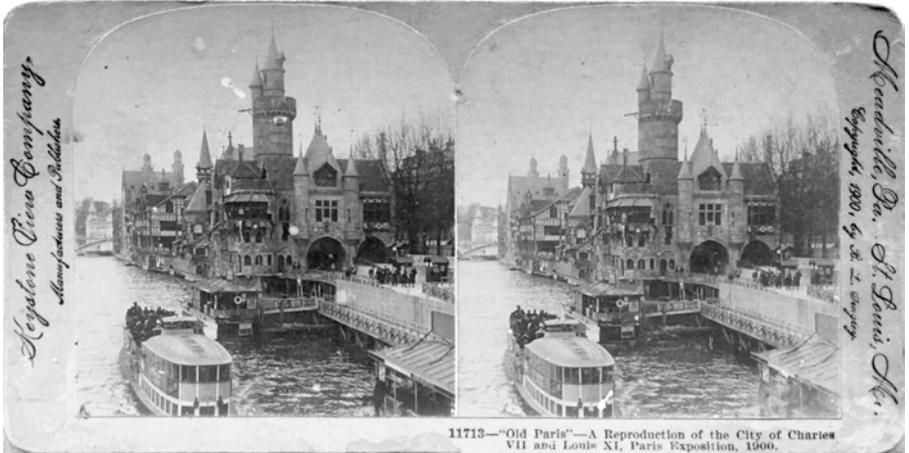


*Wagner's Ride of the Valkyries: behind the scenes.*

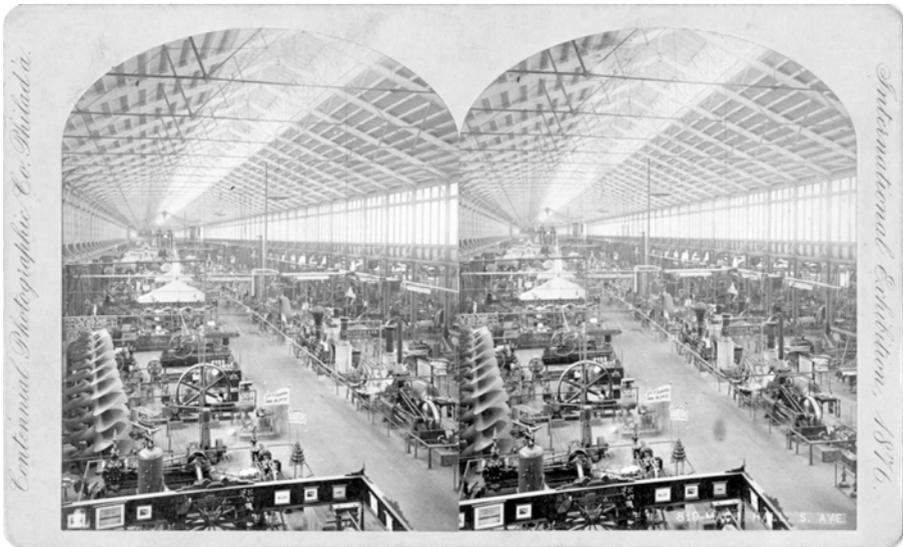


*Magic Lantern effects.*

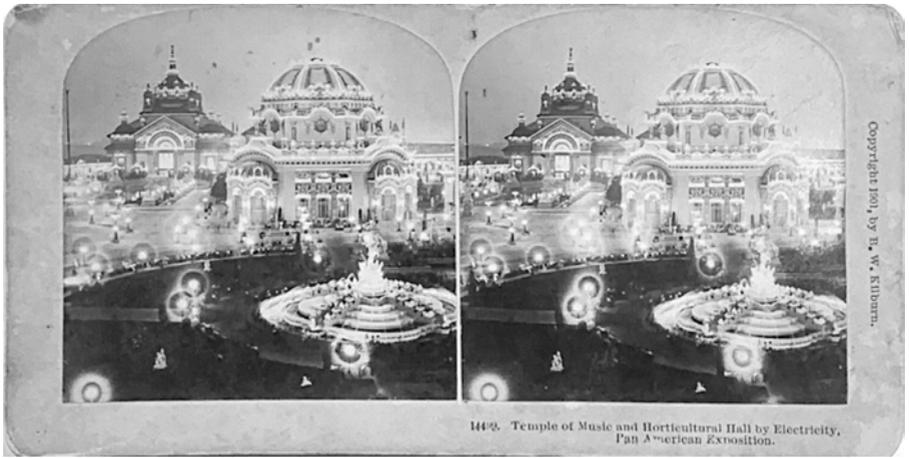
## Stereographic (3-D) Photo Cards



*Imagineering History in 1900: Fifteenth Century Parisian scene added to the Paris World Fair. (Exposition Universelle Internationale).*



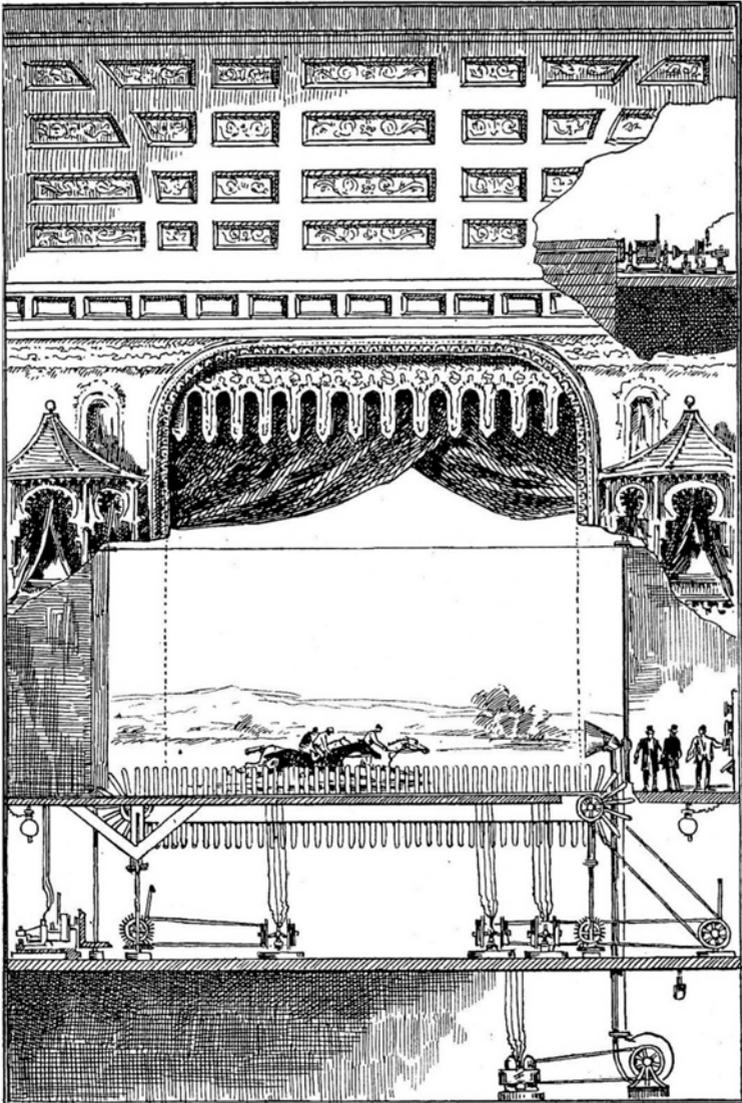
*Machinery Hall at Philadelphia's Centennial Exposition in 1876. Thirteen acres of machines powered by a giant Corliss Steam Engine. Across its 360 feet, Alexander Graham Bell made the first public phone call.*



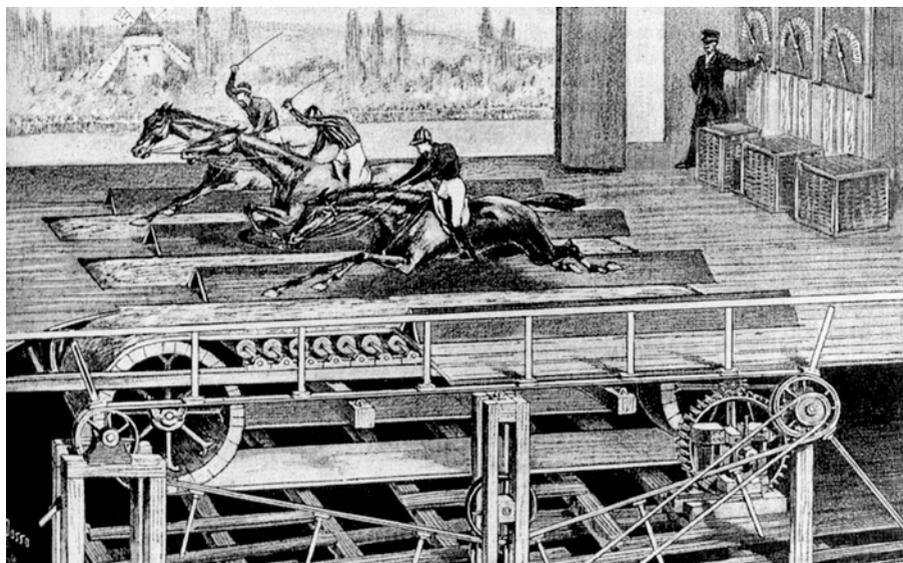
*Pan American Exposition, 1901. Popularized hydroelectric power from Niagara Falls. The lights were dimmed for a short while after President McKinley was shot there.*



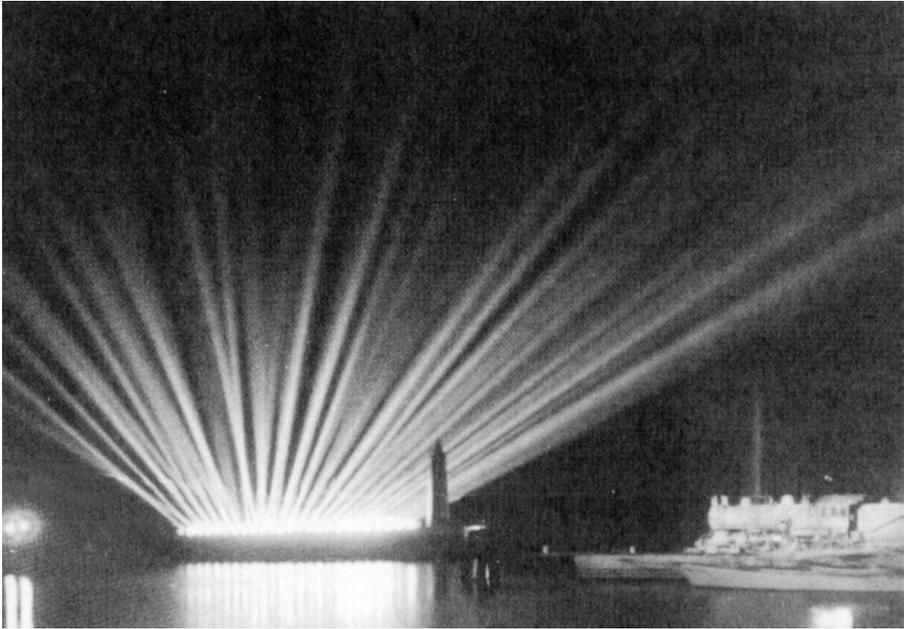
*Insanitarium, Coney Island, 1940.*



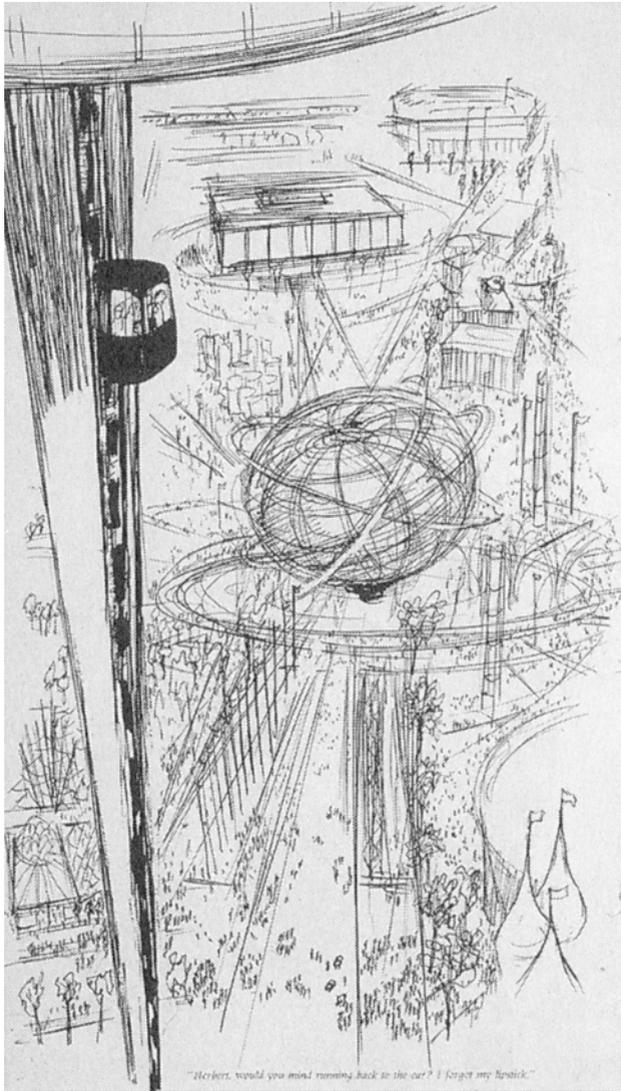
*Mechanical Horse Race, Union Theater, New York, circa 1890. Similar to a ride at Steeplechase Park in Coney Island: design layout.*



*Mechanical Horse Race, Union Theater, New York, circa 1890. Similar to a ride at Steeplechase Park in Coney Island.*



*The Scintillator, at the Panama-Pacific International Exposition, at San Francisco, 1915. Forty-eight searchlights in seven colors across the bay on vapors from a steam locomotive on a barge.*



*Nuclear Energy as a Scripted Space: Logo design for the New York World's Fair, 1964.*

## 6. After 1780: The Baroque Imaginary into Science Fiction

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By 1850, special effects have converted to the industrial economy. But they took the long way around—an eccentric transition, and frequently stalled. As the early socialist Charles Fourier wrote:<sup>14</sup> [Industrialism] has reached an impasse; it is in a vicious circle like a horse moving round and round without getting anywhere. For example, after 1780, dozens of new media reappear, then slip into a bog for decades; or simply vanish. What a graveyard for junk. And yet, as I type this, I look around my office; it is dominated by media launched between 1780 and 1850.

Here is a partial list: science fiction, cinematic toys, computers, panoramas, railroads, the lost automobile, mechanical people and animals, the shopping mall, photography, the telegraph, the daily newspaper, wood engravings, lithography, serial novels, westerns, soap operas, horror tales, melodramas, detective stories.

Together, they amount to another history of forgetting, of false starts, erasures and perverse genealogies. The era does not even have an established name. It often goes nameless, folded inside histories of technology, revolutions, even Romanticism. Yet much of it seems perversely anti-industrial, particularly its special effects.

Clearly, the mood of the Baroque Enlightenment lingers well into the nineteenth century. There is even a fetishism for Baroque gadgets that helped launch the photograph, the moving picture. Thus, Baroque media are a shadowy counterpoint during “the heroic age of the bourgeoisie.” They were updated Rococo machines, quite literally the very last gasp of neo-feudal manufacturing. However, their backwardness/modernity becomes absolutely crucial to the next stage of special effects—and to the birth of science fiction.

In other words—as fantasy at least—the way that the Baroque Enlightenment died off became an alternate reality: stories about magick science that

never quite finished what it promised. Most of these Baroque upgrades failed “gallantly,” like a gentleman. We remember its quaintness fondly in tales of silent airships, Rube Goldberg machines, and dotty gentry scientists. I find traces in literally hundreds of science fiction novels and movies, in the romance of “dead media.” One of its standard cues is the Baroque scientist, Jules Verne’s fish out of water. He is a mad visionary; but also an eccentric naïf—a Babbage, Saint-Simon, Fourier, an eschatological salesman for a new world. His experiments are tainted with failure, like Milton’s Satan, because he is a pure soul, and blasphemous; better to reign in hell because it is utopia. He is well-spoken, elegant, a gentleman from the old regime. But he is also prone to fits, especially after he turns into a fly. At night, the game is afoot. Like Sherlock Holmes, with his fierce intellect, he tends to pounce on people. Then he is bogged down with guilt like Victor Frankenstein. After recovering from his annual nervous breakdown, he visits the club again, gets some fresh air, like Babbage in his morning coat. Lucidly, he can rely on a personal fortune, because he would never work for a salary. I spot him everywhere. Beyond cliché, he just looks oddly familiar, like a relative who had his face rebuilt after an accident in the lab. The plastic surgeon from *The Black Cat* must have botched the job.

Since 1990, these Baroque scientists have been fictionalized with a costumer’s eye. Now, they pose literally as if in prop house, walking through the Victorian Internet as steampunks.<sup>2</sup> Science fiction has recoded the 1890’s as a folkish reminder of what the Internet *could* have been. In these alternative realities, Baroque software engineers refuse to let 1890 be only itself. Instead, they design a coal-smoked London ready to go green. Scientific accuracy is made to look occluded and occult, like Gothic engineering. Their cine-history is Baroque as well as preindustrial, about the restless ego, scientific method gone awry. Their lead characters are aristocratic liberals, magical materialists. As a pale blend of Verne and noir, they live a delicate, almost neurasthenic life. They need a rest cure every month; so Charles Babbage is flown in to consult (by balloon, of course). In this section, I pay homage to imaginary nineteenth-century eccentrics as special effect, to their alternative machinery then (1760–1914) and now.

We begin with one of the precursors to this transition, a passage from Horace Walpole’s *The Castle of Otranto* (1764):<sup>3</sup>

Though the machinery is invention, and the names of the actors imaginary I cannot but believe that the groundwork of the story is founded on truth

... A catastrophe ... resembling that which he describes is believed to have given rise to this work.

Walpole uses the term *machinery* here in its Baroque sense, as theatrical illusion: movable wings, floating ceilings. He is turning theatrical machines, with their occluded tricks, into literary conventions about a medieval castle and the Gothic horrors inside—trap doors, hovering clouds, and shrieking half-brothers up in the attic. The ruin of the neo-feudal state was already turning into fantasy architecture in Piranesi (also 1760, and earlier). But we must not lose sight of the irony here. Walpole is being whimsical, making a joke. His Gothic storytelling is something of a *folie*, like his father's castle, Strawberry Hill. But years later, when his book became famous, his method was copied much more seriously by other writers.

*Machine* also refers here to “toy” both optical and mechanical. But not a child's toy: these were both automata and primitive steam engines, perspective awry as technology. The “magick” of these toys lay inside their housing, where a new set of practical applications was in motion, a new form of mechanical engineering. The old Baroque seafaring engine had been replaced: no more hoists, pulleys, sails, clouds. Instead, the magick runs like clocks and looms, things that tick and click. Cylinders turned camshafts and wheels—a *repetitive* movement. Gradually, these internalized docks would integrate with advances in chemistry. In time, repetitive motion toys would launch steam power and electricity: But as the old saying goes, these mechanisms were trapped between two worlds, a body that was dying, an interior that was crying to be born.

## Reminders of the Baroque

After 1780, the heritage of Baroque special effects essentially divides in half: the architecture splits off from the optics. They literally separate, and proceed in opposite directions. For large civic projects, Baroque architectural tricks were rarely featured any more—very few trompe l'oeil statues, anamorphic walls or vast *quadratura* ceilings. Even the craftsmen who made these fancy illusions suddenly vanished.<sup>4</sup> In their place, the same kind of tricks reappeared, but much cruder. After 1780, Baroque scripted space evolved mostly on the cheap, at fairs, circuses. The old archi-tricks were marginalized, except perhaps at opera houses; but even there, industrial steam power took over.

By contrast, in more intimate settings, many Baroque gizmos flourished, particularly the magic lantern. Baroque devices small enough to place on a table became very fashionable. It was as if the dinosaurs suddenly died off and gizmo field mice climbed out of their holes, steadily took over, then grew into mammoths. Even Watt and Boulton's first steam engines had cylinders only a few feet long, still very much Baroque scientific "toys." The miniature engine clearly grows in scale, leads toward both cinema and the railroad.

The reasons for this abrupt splitting off were unmistakable. After 1792, world wars during the French Revolution crash the market for Baroque scripted spaces. The big-ticket palatial orders stop coming in; even courtly theater all but ceases. In popular theater, Torelli and Sabbatini's old systems practically disappear. Sliding wings as allegorical wonder seem clunk, less "real"; accelerated perspective looks "too forced," like a Poussin sky indoors. Instead, detail about climate and costuming had to look more "natural," more painterly; that clearly appealed to bourgeois audiences after 1780.

Designers like Loutherbou<sup>5</sup> in London pioneered this new staging—clearly identified as anti-Baroque. Instead of perspective awry, Loutherbou<sup>5</sup> preferred painted sets. At the theater, natural harmony replaced the *machinae*; painting more than hoists; better light instead of stiff clouds pulling drapery; Sculptural effects were out, painted illusion was in. Better lighting added presence, palette, made painting more effective. The flickering candlelight of the Baroque was gone. Audience boxes were standardly pulled away from the stage, a much dearer distinction between audience and proscenium. All these changes in scenography came rather abruptly. They signaled the end of Baroque participatory theater. The role of the audience was shifted away from the performative, away from interactions like masque. Instead, the audience was the paying public. The "mass public" clearly required a different range of illusion.

Loutherbou<sup>5</sup> also pioneered other links for the history of special effects. With automata so popular, he finessed what amounts to puppets as pre-cinema. In order to highlight deep focus as nature (instead of Baroque artifice), he animated puppets in ambient lighting. Undersized puppet soldiers would march along the horizon. But more important for cinema in 1781, he premiered his Eidophusikon in London,<sup>6</sup> an intimate, mechanical theater—essentially a moving diorama—using gauze transparencies and ambient lighting, a very different kind of shipwreck than the Baroque. He also painted ambient landscapes, particularly of storms at sea (and battles under stormy skies), at the same time that Turner and Friedrich began working, when Romantic

theories of the picturesque and sublime first appear; and in London rooms not far from Barker's vast panoramas, or Robertson's ambient ghost shows, the Phantasmagoria.

Even before 1789, the mercantile bourgeoisie had fled the old alliance, transformed its identity politically and philosophically—which explains why “half” of the Baroque “splits off.” By 1783, both Fuseli's *The Nightmare in London*, and David's *Oath of the Horatii* in Paris epitomize this new identity, each shifting rapidly from older aristocratic models. It is standard for art historians to highlight this “epistemic” shift, evident decades before the Revolution. They locate it in Diderot's salons; in science blending natural philosophy with special effects toys. They see it in the Enlightenment after 1789 as well, the era of Condorcet, the Napoleonic French Academy, David's “Etruscan” period, the early bohemianism of his students. As expected, 1789 remains the crucial year. Revolutionary trauma explains most clearly why Baroque scripted spaces drop away so quickly.

And yet, some of the Baroque memory does persist, some nostalgia for seventeenth-century mercantile gentility, for something of the old alliance. After the Napoleonic Wars, during a conservative interregnum, monarchies even try to revive Baroque spectacle, with eccentric results. In 1828, Charles X of France has himself crowned in a silly gala worthy of a weak-minded descendant of Henry IV—Baroque as a drunken mass.<sup>7</sup> A half century later, King Ludwig of Bavaria builds a Baroque pleasure dome so overwrought that parts of Disneyland were modeled on it.<sup>8</sup>

But most of all, after 1820, the “occultism” of the Baroque persists, heavily disguised behind Catholic revivals, a misremembering of both Neoplatonism and old-regime hierarchies. Seventeenth-century spectacle returns as something weirdly whimsical—what I call a Baroque Imaginary. Nineteenth-century writers tended to call it Gothic, but that may not quite hit the mark. After 1780, “Gothic” tales were rarely set in the Middle Ages, but were filled with Baroque automata, theatrical illusion, occult science, mystical dandified Romanticism, some of it highbrow by our standards, some of it sheer pulp. I call it the nineteenth century thinking the eighteenth century was the seventeenth century. We see it in fantasies written by Hoffmann, Kleist, Goethe, even Wordsworth, Coleridge, certainly Poe; early Balzac—and of course, classically, in *Frankenstein*; but also in handbills, small newspaper items, odd optical ephemera, and penny dreadful, shopworn Gothic tales. By 1862, this misremembering of the Baroque had essentially channeled Romanticism toward science fiction (and still does).

The Baroque Imaginary was conservatively radical, in American jargon today something like libertarian, but utopian. It was often opposed to the grime of manufacturing, even the new city itself, while glorifying the old aristocracy; it was highly conflicted, a kind of evolution by devolution. Like Romanticism in Germany, the Baroque imaginary could be fiercely antirevolutionary (at least anti-French), yet sentimental, Rousseauiste, pietistic.

It was particularly divided about the machine itself. In England, Baroque crafted machines took on the mystique of Gothic ruins, an odd transition. Even the magic lantern itself, so often used for seances with the past, like a lighthouse into the afterlife, still resembled a ghostly Baroque peep show, still jesuitical, with gleaming metals in ambient light. How strange to see a seventeenth-century style misremembered so well: the magic lantern had glorified hierarchy, the Neoplatonic. Then, in stages by 1880, this magic machine, with all its Baroque gleam intact, is channeled on behalf of “individualism,” “democracy” in scientific lectures, armchair tourism, and panoramas for the new masses.

In the late eighteenth century, Baroque trompe l’oeil leaves the courtly scripted space. Instead, it turns into popular Rococo ornament—no longer a stately labyrinth, with secrets about hierarchies. Now it was patterned more as home decors, white noise for walls and room dividers, for very private pursuits. Thus, trompe l’oeil returns as ornament—without the “three acts in a few seconds.” Simply put, it returned as Art Nouveau, as pattern rather than scripted space—into a floating signifier, part of the Baroque imaginary. These “Rococo” and “Gothic” patterns were more psychoanalytically defined. Instead of scripted space, they took you on an interior path. But the imaginary of Baroque science survived more directly, as science fiction—in *voyages extraordinaires* about scientists and deviant eccentrics updated from the late Enlightenment. For decades, a range of scientific nostalgia can be found in literature, theater, public lectures. It was Baroque science retrofitted to the industrial age, with a new occult spin, lots of debunking and hoaxes, but always with mythic eccentrics, those gentleman scientists. Baroque toys wind up as Victorian knickknacks, for amateur sleuthing. We stop off at Sherlock Holmes’s private laboratory, a universe on tabletops in a rented flat—a primitivism about skilled craftsmen, and Baroque science lit by Victorian gaslight, updated, but still like a Baroque gentleman’s fantasy.

## Steam

Most of all, this Baroque Imaginary was set up before 1840, during the uncertainties about industrial machines in general, after 1780. And yet, as I mentioned earlier, industrial manufacturing seems to draw upon Baroque engineering/mechanics—those “toys.” But it uses them in a very uneven way. In fact, between 1760 and 1800, steam power seems to emanate from the late Baroque. Even more surprising, at first, steam engines barely make a cultural impact anyway, certainly not in Paris until 1836, when de Girardin (following the English) installed steam-driven printing presses for daily newspapers, serial novels, *feuilleton*. So along with the trauma of the French Revolution, what I find is an interlude. From 1780 to about 1840, there was an ironic lag time—both in civic and intimate special effects. The industrial imaginary does not rush in all that quickly.

As a result, when sorting out the documents, it is very easy to be misled. For example, in 1831, a brief news article asks: “Gurney’s The Steam Carriage: Can It Be Made Safe?”<sup>9</sup> This could easily be interpreted as industry on the march, but more likely it suggests anti-industrial paranoia: Who wants those gruesome things boiling down the street, terrifying horses and children? Perhaps they should never be “made safe.” In one caricature,<sup>10</sup> a horse watches Gurney’s steam carriage chug by, and declares: “Well dash my wig, if that isn’t the rummest go I ever saw.”

Goldsworthy Gurney (1793–1875) began as a surgeon, then worked as a free-lance lecturer in chemistry and natural philosophy.<sup>11</sup> Like others of this odd generation, he was a late Enlightenment “gentleman scientist,” not quite ready for the new business climate. He would be an old man before mechanical engineering was completely professionalized.<sup>12</sup> However, in his youth, by 1825, he joined in the chase to build a carriage powered by steam and monitored by camshaft.<sup>13</sup> Perhaps ten prototypes had failed already.<sup>14</sup> They were ugly rat tiers, like coal bins from a mine shaft, with massive wheels and great stove pipes, not very gracious. Most had sent their inventors into bankruptcy, or simply blew up. The first to be widely noticed—but with some horror—was from Richard Trevithick in 1801. Soon after its maiden run, while Trevithick relaxed at a pub, his carriage set itself on fire. Undaunted, he threw himself into repairing and improving it. By 1803, he had made the thing safer, even for speeds of up to nine miles per hour, faster than any horse. But by then, all his investors had left.

The “things” lacked traction; their wheels kept slipping. But that was only one drawback. A Swiss inventor, Rivaz, tried a gas engine, for more power; it proved too backbreaking to operate. Samuel Brown tried a hybrid car, both gas and steam. It climbed Shooter’s Hill, had traction, but was too expensive to build ever again. To make the things more natural, some inventors added pistons that seemed to gallop just like a horse. Others promised “boilers” that could glide like steamships on the land. Nevertheless, before 1830, every model failed as a business venture. We barely remember names like Brunton, Burstall, Hall, Seaward.<sup>15</sup>

Then in 1829, public interest revived after the success of George Stephenson’s Rocket Locomotive. Thus, Gurney decided to go one better. His carriage was stately, with seats high above the chassis, high enough for a dressy coachman and six smiling gentry. Fussy panels along the side camouflaged the chimney in the back. Anything suggesting chimneys was, by definition, ugly. They reminded people of coal smoke off the roofs of London. Chimneys remained a symbol for anti-industrial culture into Victorian times—even in Parisian caricatures by Grandville as late as the 1840s.

But more importantly, Gurney had solved the problem of traction. He designed a steam jet for added compression, in “sectional boilers”<sup>16</sup> that were “much lighter and safer than before.”<sup>17</sup> So in July 1829, his carriage started off quite well. It puffed from London to Bath at speeds up to fifteen miles per hour. Gurney even hid spare parts along the route, to overcome several breakdowns. But unfortunately, a year later, one of his “Drags” blew up anyway, near a barracks in Glasgow.<sup>18</sup> However, despite setbacks, Gurney’s carriages seemed reliable, even pleased the Duke of Wellington. They were, after all, the first motorized road vehicle to survive a long-distance journey.

By 1831, Gurney found investors. The manufacturer Sir Charles Dance ordered two carriages. Then other orders followed. Finally, with Dance’s capital, he started a passenger service. Then the old curse returned. Powerful enemies took offense. The Turnpike Trust, with support from stablers, hostlers and stagecoach companies, passed ordinances against all steam carriages. Severe levies eventually forced heavy machines off the roads. Despite a plea in his defense from the House of Commons,<sup>19</sup> Gurney was taxed out of business by 1833.

Indeed, the future in early steam power did not always belong to the swift. Rival inventors tried passenger services as well. My favorite name was Hancock’s Autopsy—as in *automated topsy*, steam engines as special effects. They also suffered. Additional laws reduced top speeds to four miles per hour on

the open road, and only two miles in the city. The anti-industrials eventually won. A prophetic moment—the world's first automobiles—barely survived the 1830s, then disappeared by 1845. Machines on rails outdistanced machines on the road. Motor cars would have to wait another fifty years, for the research by Mr. Diesel. The entire episode had been all but forgotten by 1863. Early histories of the steam engine barely mention the existence of steam carriages, as if they had been a chimera.<sup>20</sup>

Gurney's career simply moved on. In 1863, he was knighted for lighting and ventilating the House of Commons.<sup>21</sup> But it was a dubious honor. By then, he was considered a creaky old nuisance. His knighthood was a golden handshake, to force him to retire. It is fair to say that Gurney never quite overcame the curse of his generation. Gentleman scientists were seen as dabblers, working in too many forms of mechanics at once. Their inventions were often called "toys," a Baroque term, by the way, left over from the scientific occult, but rather demeaning in 1830. Gurney was still haunted by the Baroque search for a perfect vacuum, by the study of phlogiston, as part of the philosophy of nature.

So, like a mad Jesuit, he built a piano that played glowing bottles filled with burning hydrogen. In 1823, he lectured on hydrogen, invented a oxyhydrogen blowtorch, called a "blowpipe." Then whatever looked curious, he set on fire.<sup>22</sup> A lump of calcium oxide proved the best. It burned fiercely for a long time; it was blinding. Thus, in 1825, Gurney discovered limelight. Soon after, a lieutenant stationed nearby, Thomas Drummond, heard Gurney's lecture about limelight, and stole the idea (patents came later). Thus, "Drummond" light, not Gurney light, became famous. Its glow penetrated sixty to ninety miles. Inevitably, both Drummond and Gurney worked on lighthouses. At the same time, however, Gurney kept experimenting with his blowpipe. He invented "Rude" lamps for the streets of London, then for mine shafts and as heating systems. He even found a way to bounce limelight from room to room, with lenses and prisms.<sup>23</sup>

By 1860, limelight had transformed night to day as a special effect in many theaters, particularly for spotlights and other special effects. It added the "surviving" moon in Gothic melodramas. For large panoramas, it could raise or set the sun across hundreds of imaginary miles. Most of all, limelight vastly expanded effects for the magic lantern; like dissolving views and wipes, for richer color—and above all, to project more sharply on to a much larger screen. As late as 1913, limelight was still widely in use for traveling movie exhibitions, in small towns.<sup>24</sup>

Still, there was nothing inevitable about Goldsworthy Gurney's industrial genius, even though Stephenson himself admitted that Gurney's version of

the camshaft helped make the railway more practicable. Despite the colossal growth of British industries before 1840, Gurney lived through an era marked also by fierce resistance to manufacturing. I am reminded as well of popular Romanticism, of *Frankenstein* most famously; then the Pre-Raphaelites by 1848; and the Gothic Revival by 1860. Also, by the perverse fascination with landscape *en plein air*. And even more telling: the resistance by Luddites from 1811 to 1816.

Of course, the Luddite impulse continued for decades. In 1830, Swing Riots closed down knitting mills during a wave of industrial sabotage in the English countryside. But consider the response by local government: Magistrates in North Waltham “begged ... Owners and Occupiers of Land ... to discontinue the use of Threshing machines, and to increase the Wages of Labour.”<sup>25</sup> Indeed, many farmers agreed. Caught by spiraling inflation, and maddening tithing debts, they voluntarily destroyed their own equipment.

Similarly, in France in 1831, there was “sabot—age” at silk factories in Lyons. The leaders were skilled cutters who were losing their jobs, or most of their incomes, to machines. In support, spinners would rub machine grease into the silk. Then the army came in. Under military assault, the riots at Lyons were brutally repressed. In 1831, Balzac wrote, in what became a rallying cry for anarchist movements as late as 1900: “The spinner [is] transformed by silken threads that weigh him down like cocoons. Fairness goes out the door, so [to resist] the ‘spinner begins to oil his fingers.’”<sup>26</sup> If heavy industry increasingly promised to release the worker into a collective mode of production, then the Baroque imaginary—man at his private work station—promised to preserve the craftsman.

And yet, when the dust settles, many table-top Baroque “toys” adapt well to the new engineering. They provide entertainment that fetishizes manufacturing. They make industrial objects that look magically pre-industrial—softer, more nostalgic. Magic lanterns, and gizmos the size of tea kettles, were utopian special effects, with many of the same contradictions as utopian socialism, utopian scientists (I am reminded of early “anti-capitalist” fantasies about the Internet). These Baroque devices, in transition from 1780 to 1840, “returned” the viewer to a time when machines (and media) seemed immune to capitalist corruptions. But in fact, before 1840, this immunity bore a steep price. The moment was still oddly premature, even for many businessmen (also, consider how many geniuses of early media go broke, like Daguerre). Factory owners were caught in a double bind. Energy costs remained too high for steep profits.<sup>27</sup> At the same time, pay scales for artisans continued to drop, or remained stagnant for decades. Even Gurney was stoned by locals as he drove his “boiler”

in 1829. Were these “steam things” going to put us all out of work, even the mills out of business—or take us somewhere?

As Charles Babbage explained in 1832, there was a split between “the maker” and “the manufacturer.” He preached that his early computing machines would save handicraft. He reminded his patrons that they—not rude, steam belching woolen looms—were the future.<sup>28</sup> He compared his Difference Engine proudly to Baroque automata, to mechanical “toys” he had seen at local curiosities museums. Babbage was another late-Enlightenment gentleman engineer, trying to balance automation with Baroque automata. Like Jeremy Bentham’s obsessions with panoptical prisons, like Robert Owen’s rustic communes and Fourier’s unbuildable phalansteries, Babbage felt that he could easily mechanize the soul of a rustic craftsman. At this earlier economic stage, men like Babbage, did not see themselves as mouthpieces for business. It seemed quite feasible to plan for machines that could exist in complete harmony with nature. They could chime and click like Baroque scientific toys, bring harmony outside the grind of monopoly capitalism. They might even help cure labor unrest.

These smaller, crafted machines could be rural, work in harmony with “landscape,” outside the reach of industrial alienation. And there seemed to be evidence supporting that intuition—again, odd evidence. Eccentrics made bad investments. Inventors like Gurney indeed extend the Baroque within the Enlightenment—as gentleman scientists, philosophers of chemistry—but they have poor business minds for this new economy. Their transition toward applied science was often very rocky: At first, they seemed better suited for special effects, for amazing things to put on display.

For a long time, the practical was hidden inside the belly of these “things.” Newcomen and Watt helped to shift Baroque engineering away from earlier nautical engines (rigging, gears, hoists). Instead, they specialized in a mechanics based on *repetitive motion*: pistons, looms, camshafts, clocks. But these looked rather modest, better for pumps in mines than the world aboveground. For a time, early steam engines and special-effects automata—puppets with machines in their bellies—managed to coexist, at least ideologically. They were part of natural philosophy. Repetitive motion revealed “man the machine,” that famous quote from La Mettrie in 1748.

Thus the automaton and the railroad emerge from similar ancestors from the late Baroque (during the late Enlightenment). But at first glance—then and now—they look quaint, not the “sensible” place to start the industrial nineteenth century. They still look too much like mechanical birds that Jesuits

brought to China in 1650. They fit too well inside a Rococo drawing room. “Toys” that play chess, mechanical children that play the flute, ducks with metal stomachs and fluted anuses? Automata seem only a step away from a Fragonard cameo. Or those ornamental clocks. Their brass leaves were hammered thin—too fragile for use. They looked too delicate to keep serious time, more like a peacock by a stream, unfurling like a puppet. But the inner workings of these “toys”—their hidden coils and wheels—spoke for something very ideologically different, to the practical future for James Watt, Ben Franklin, the French encyclopedists, to the Enlightenment that would follow the French Revolution. But before steam could become a homely everyday industrial “thing,” these mechanisms incubated as special effects. They were novelties for a new mass public. And in the public imagination, they have remained there.

Again, the Baroque Imaginary appears as a parallel universe, reacting against the maelstrom of industrial capital. It stood in for a collective memory that often ignored but also defended industrial capitalism. Baroque science made technology look innocent, aristocratic. We show off a Baroque automaton in 1820. It looks old-fashioned, hierarchical, anti-democratic, yet very advanced. It is a souvenir for a future that died.

And yet this automaton has joined the “modern” business culture. Eventually, it may be retooled as cinema, the telegraph, the telephone. It presumably speaks for media that are more democratic, or at least more bourgeois. Of course, this begs the question: was middle-class entertainment after 1780 more egalitarian? I leave that for the reader to decide. Baroque special effects mirror this contradiction. They were remnants of feudality from before 1789. That was crucial to their appeal, and their modernity. Occult lab nostalgia, with feudal brass fittings (circa 1750), sold well in 1835, in 1895, and in 2003—as modern.

Thousand-year-old hierarchies are not simply overthrown like apple carts, quite the contrary. In England, despite two revolutions of their own in the seventeenth century, they were still widely embarrassed by the American Revolution. Thus, popular support for French-inspired radical politics lost favor at first, even after the Jacobins fell in 1794. Strong anti-French conservatism grew even fiercer during the Second Coalition, and fiercer still after the “Boney”<sup>29</sup> scare of 1803. Inside that cautionary atmosphere, many special effects were pioneered: phantasmagoria; panorama; automata. The ideology behind these illusions had to fit the caution of the day.

Then, the noose grew tighter. During the era dominated by the Austrian Prince Metternich (1815–1848), even more conservative impulses were institutionalized, with middling results, across Europe. Let us imagine a Victor

Frankenstein patching something out of this conservative Europe (Mary Shelley and her illustrious husband were hardly conservatives). The French Revolution had been a heart attack upon the corpus, a shock. This conservative reaction after 1815 tried to breathe life into the corpse by keeping its pulse low. Dangerous theories, like the end of monarchies, became even riskier in public. At the same time, aristocratic fashions—at least as nostalgia—maintained a high profile: the Beau Brummells, the dandies, young Baudelaire, even the Decadents of the 1890s. In response, businesses that marketed special effects played to the center, or even toward the right. They tried to soft-pedal their politics. Party affiliation, beyond what was popular, might get in the way of these special effects. As always, in the end, special effects were about equipoise, on behalf of a limited monarchy that was open for business. They borrowed often from nostalgia for the Baroque, but ennobled as mass amusement, free of class warfare, where every patron could feel like an aristocrat.

Special effects rarely defend revolutionary politics anyway, at any time, now or ever. They are usually too fetishized to be a political call-to-arms. In the era 1780–1840, they promoted aristocratic liberalism for loyal subjects, and the less said the better. Like cable media today, they voted for stability first, and open markets second. When you sell tickets to shows, you moisten your finger to the wind even more than politicians do. By 1815, that meant: Be cautious; it is an age of restorations, of gentility for the paying audience, on terms best for profit.

But there is also another twist to the Baroque Imaginary. After 1840, exhibitors of Baroque automata slow down. They look orphaned. They seem feeble and worn, leftovers from the last generation of *philosophes*, like Condillac, Bentham; from popularized Kantianism, early evolutionists. These were preindustrial—Baroque stand-ins, still part of the as-yet unexpressed, in hundreds of fantasy goth sites; steampunk sites on the Internet. Like Gurney's steam carriage, many assumed that the freedom of the early Internet would be struck down in its prime. They suggested a regime cut short, that pioneered steam-driven energy (ironically cleaner than gasoline-powered engines). Gurney's "boilers" failed to make the cut after 1840—due to economic downturns, railroad capitalism, urban growth; and finally advances in chemistry. Such dead ends identified with judgment day. In 1840 thousands of Americans prepared for Dooms Day, by waiting on hills. Instead, another age of revolutions and civil war emerged.

Therefore, after 1840, Baroque gizmos look even more orphaned, in a modern age of steel and railroads. This despite the fact that they were actually symp-

toms of modernist vigor. Consider how many “firsts” in Baroque media were launched between 1815 and 1840—these contraptions “that boiled, clicked and gleamed.” And yet, the Baroque Imaginary emphasizes loss, and scientists as Jeremias and Cassandras both; a sense of ruin, as Walter Benjamin continually reminded us. It was the dying edge of modernity.

Perhaps entertainment media are always the reactionary posing as modernity. Media from 1815 to 1840 were certainly confused in that way. First it was a golden age for telegraphs, electricity, pre-cinema, pre-automobiles, photography; and second, an era famous for its “dead media,”<sup>30</sup> for technical promises that died prematurely. Probably most of all, 1815 to 1840 was a truncated age. I can see why it was cut short by intense class warfare, the revolutions of 1848. This makes for a contradictory path indeed: Baroque special effects go from hand-crafted gizmos to industrial illusion by 1900, then reappear inside electrical media, inside advanced suburbanization, finally inside the Electronic Baroque today.

### **Baroque Imaginary: A Collective Misremembering of Eras from 1550 to 1780; The Mad Scientist as Baroque (Film Architecture, Literature)**

In brief sections to follow, I will take us through special effects from this period, in civic architecture; urban planning; urban circulation; trains; lighting; the panoramas; automata; theatrical machinery; the role of spectators; caricature and illustration; fantasy literature; optical toys; pre-cinema; and the state system in Europe. Special effects during this “interlude” (1780–1840) tend to glorify the scientist as skilled craftsman, in a dual role, as Apollo, and as long-suffering Prometheus. Stories about these tricks suggest a primitivist fascination with gentlemen in parlor laboratories; and particularly with mechanical engineering as anti-capitalist science. This mystique returns after 1850, as biology, in descriptions of gentleman naturalists like Darwin, and gentleman geologists entering Africa or crossing the oceans—who are then mystified in the writings of Verne, Wells, Doyle. Clearly, this false memory has some basis in fact. As always, the best way to lie is with the truth. So we will be making ontogenic leaps from the imaginary to its political background. There is no other way to accurately—and honestly—describe how special effects invent narratives about power.

## Anomaly

That will prove a useful term for us. As Thomas S. Kuhn pointed out forty years ago, scientific knowledge regularly hits a barrier of resistance. It grows to a point of *anomaly*,<sup>31</sup> then, like water breaking through a dam, is finally plunged forward. Next having moved ahead, technology stalls at another barrier. It over-professionalizes. Practical applications grow. Anomaly always brings a mixed blessing, great success clouded by inevitable corruption. Presumably, if one knows the risks beforehand, that might lead to healthier results.

I will not deal with the arguments for and against Kuhn's theories. They lie beyond my subject. Imagine instead how anomaly fits into mass culture and the Baroque Imaginary—as the moment when the mystical, the inductive, the atavistic, the lost science, the failed opportunity turn into special-effects fantasies. Special effects are mythic reenactments of anomaly, whether there actually was a barrier or not.

In that spirit, let us assume that during the eras 1770 to 1840, the memory of Baroque mechanics appears in pre-science fiction as anomaly. Surely, if ever there were an era dedicated to scientific anomalies, this was one, laboring under the pressure to “unconceal,” as Heidegger might say. Even Kuhn returns to those decades often in his examples, starting with the debates about oxygen after 1770.

Anomaly suggests nostalgia for Baroque scientists, now a vanishing breed. This nostalgia fuels the birth of science fiction, through industrial fables about adventurous but dotty scientists at war with repressive capitalism. They become symbols of magick science as a social imaginary. Free of the modern, they see deeply into the future. Baroque scientists behave like bohemian poets—*l'art pour l'art*. Their pure science remains an anomaly within capitalism. It is too mired in left-over Baroque hierarchies (circa 1820) to make a profit—not yet. (Anomaly, after all, implies a blockage that *will* be resolved.) Of course, this is merely cultural myth, that during this interregnum, the scientist remained an outsider, an avant-gardist.

I won't try to locate the truth behind this collective imaginary. For a book on special effects, I merely point out that the Gothic reading of Baroque science as of 1820 maintains a fierce hold on science fiction; and in turn, on special-effects cinema, from Wiles to orientalist versions of Baroque nightmare, in *The Mummy* or the Indiana Jones series. One can ride the Baroque/Industrial Imaginary in merry-go-rounds at fairs in 1900, particularly in England. There,

Gothic castles get the Baroque theatrical treatment, becoming facades for freak shows and amusement rides.

We also should remember that European fairy tales were Baroque more than medieval. They were retold in the seventeenth and eighteenth centuries, as “faerie,” even in Milton and Spenser. Then they lingered as late Baroque puppets in London or Prague or Germany, before the publishing industry and the opera revive them yet again. Even King Arthur’s Camelot is filtered through the Baroque, through state building and civil war in seventeenth-century England. Or certainly Camelot is Baroque in Mark Twain’s version, like an early steampunk novel. *A Connecticut Yankee in King Arthur’s Court* turns Baroque memories of chivalry into New England Protestantism—into anti-Catholic, anti-Crusades, closer to Twain’s beloved reading of *Don Quixote*: anti-chivalry reworked for the Gilded Age. Who could remember as far back as the Middle Ages anyway? Not when you tramp through the medieval in its late-Baroque condition throughout Germany, as Mark Twain did, described in *Innocents Abroad*.

But beyond the literary misrememberings, there is also the Gothic Revival, a grander, more expensive world’s fair version of the Baroque Imaginary. Here, entire cities were misremembered triumphally. After 1860, the Gothic Revival is the last gasp of the Baroque—as Romantic urban planning: the Piranesian labyrinth as dream architecture, the Second Empire remembering the Bourbon kings. The “Baroquish” version of feudal glamour seemed Napoleonic, a charming filter for Gothic design, or Victorian chivalry in ornate bindings and fancy wood engravings from the Dalziels in London. It was a gaudier, more decadent way to illustrate Mallory’s *Mort d’Arthur*, even into the era of Beardsley and later Rackham. Baroque nostalgia gave medieval magic tales a gnostic occultism, or one more Gothic twist as the revenge of a Baroque corpse in *Dracula*.

I set up a master list of the Baroque Imaginary in films, buildings, graphic novels, computer games; but the numbers began to run into the hundreds, on their way to the thousands. In essentially all of them, a highly scripted Baroque walled city is imagined as late medieval, because it was quintessentially “feudal”—as in the Oz books, in Tolkien’s Celticized Middle Earth, in Wells’s time travel, in Japanese anime, in the Conan stories, *Mad Max*, and *Star Wars* films. Similarly today, architects are designing an Industrial Imaginary, to misremember the city of 1940 by way of suburban consumerism. As I will discuss in Part IV, Gothic revivals polish decay, until it turns into special effects. Ultimately, they retrofit the haunted house until it looks as if no one has moved in yet.

Of course, there is also a psychotropic side to the Baroque Imaginary, as Freudian or Lacanian architecture. I have always thought that Freud's topology was a Baroque novel.<sup>32</sup> Cathexis is a leaking roof that suggests invasion from outside, perhaps the most elemental form of special-effects story. In the second volume, I will go much farther into the psychotropic and paranoid layers beneath special effects. But for this book, the expensive pageantry is supposed to keep you riding the surface, like a Disneyland ride through the end of the world. There, we find characters from the Baroque Imaginary, like Gurney. They reappear as adventurers in science fiction. They are uncontaminated by profit, from Captain Nemo to Indiana Jones.

Our culture needs the Baroque Imaginary for this kind of time travel. It condenses all Middle Ages into a dark age a few decades back in the fifteenth century. It searches through the ruins for theatrical spectacle. As I will show, special effects today labor under a triad of imaginaries: the Baroque; the industrial modern; the Electronic Baroque. Indeed, so much of this book operates in triads. I often say to students, give me any three points, and I can make a line.



## 7. Aloft: Jules Verne; Felix Nadar; Edgar Allan Poe

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In 1844 Poe writes: “The Baron was one of those human anomalies ... who make the science of mystification the study and the business of their lives.” Clearly, by Baron he means Von Kempelen, as in “Von Kempelen and His Discovery” (1848), about turning lead into gold. Poe had just seen the famous chess-playing automaton, and was fascinated by characters like these—by the occult mood of Baroque science. Its toys and inventors seemed unearthly, like hoaxes. They were emblematic of one of Poe’s obsessions—to be trapped between, neither truth nor fiction, present nor absent. Poe becomes a key spokesman for the interlude between 1780 and 1840, which, by the way, was also a golden age for hoaxes.

Are hoaxes a special effect? Are they echoes of Neoplatonic science—of Baroque techno-occultism? Are these hoaxes a vital source for science fiction and effects today? Certainly, scenes from those early tales keep reappearing. In *The Mummy Returns* (2001), an oblong, antique balloon operates by a screw propeller similar to the *hélice* imagined by mid-nineteenth-century *fantaisistes*, like Nadar, Dore, Verne. Our journey in this chapter takes us into the Baroque Imaginary as lighter than air. (To distinguish its stories from sci-fi today, I will call them “science-as-fiction.”) They were hoaxes based on misremembering—on the floating away of Baroque science. I’ll begin with a summary statement:

From 1835 to 1865, “science-as-fiction” evolved out of hoaxes and the Baroque Imaginary; and it evolved mostly in print—as fiction, journalism, popular illustration. In these fictions, the most obvious signifier was travel by balloon, while lost in the clouds. Balloons become heir to the myths of terra incognita, to the silent and preindustrial as escape, as chance technique.

Indeed, in many of these stories, gentleman scientists do their adventuring by balloon, that silent precursor to noisy industrial machines. The balloon becomes emblematic—a symbolic interlude—as do the science fables of Poe, the

personality of Nadar, and hoaxes of all sorts. They all point in essentially the same direction, toward special effects imagined during the early transition toward industrial imagery (after 1820; and these images, in turn, find their way into cinema).

Science-as-fiction stories treated the machine as an anomaly, as a Baroque remnant. The old promises were adrift: the occult laboratory; the balloon; the automaton; electrical magic. They were lost during the revolutionary period. They were oddities now, inventions not fully exploited. Thus they enter the fictive imaginary.

In countless stories, this oddity is shut down by the world; but the hero plugs on, the scientist as flying dutchman, as ancient mariner. The oddities are not as noisy as industrial machines. They hide underwater or underground. They are not as loud and ruthless as the steam engine. They react against the conservatism before 1848, and then after 1848, the clumsy and brutal emergence of industrial capitalism. They were outside of both worlds, the Baroque imaginary as progressive and regressive at the same time. Anomalous adventurers were caught in the crosswinds during this transition, from 1820 to 1870. They pretend to be aloft; but this is merely an internalized daydream, incipient science fiction before the industrial imaginary takes over.

## Paris, 1863

The balloon *Le Géant* became the colossal flop of the season, lampooned ruthlessly. Its sponsor, the newly formed Society for Aerial Locomotion,<sup>1</sup> had been meeting inside an Arabian tent, at Felix Nadar's lavish new studio,<sup>2</sup> at the height of his fame. Nadar was an adventurous polymath, perhaps the first media star in Europe—a designer, illustrator, journalist, amateur scientist, pioneer photographer, and the most renowned aeronaut in Paris. While in a balloon, tethered more than aloft, he had produced the first aerial photographs of the city. Using magnesium flares, he had photographed the unseen below the city as well, its sewers and catacombs. Now, with his friends, he planned an even grander coup. They would decide what kind of flying machine might be invented some day. According to their brochures, the best guess was a two-masted, steam-driven spiro-copter, the *hélice*.<sup>3</sup> There was no hope of building it in 1863, only of sparking interest. So, spearheaded by Nadar, the Society raised enough money for a special-effects promotional event, the ultimate in "aviation."<sup>4</sup> A factory nearby was hired to sew together the world's largest hot-

air balloon. Called *Le Géant*, it extended 147 feet and held 212,000 cubic feet of gas, with a two-story gondola.

It would be launched at the Champ de Mars, precisely where the Montgolfiers had pioneered balloon flight eighty years before (1783). Newspapers covered *Le Géant* as if it were a small war in Africa. Moored and tethered, it rolled under strong breezes. Then disaster struck. True to form, hot-air balloons were difficult to steer. Almost immediately, *Le Géant* hit a crosswind, and floated erratically to the suburb of Meaux. The press was savage. But Nadar proved as cheerfully feckless as Goldsworthy Gurney. He and his friends dug even deeper, paid to have *Le Géant* resewn. Then, to prove that “aviation” would some day be safe enough for women, Nadar persuaded his wife to fly with him; and as further insurance, invited the Godard brothers, direct descendants of Montgolfier’s original crew.

This time, the crowd was thin. *La Princesse* did not show. And once again, there were gusts. And yes, once more they blew *Le Géant* out of sight—this time much farther than before. Nadar’s wife screamed for revenge as the basket floundered for seventeen hours. It passed from France to Germany, and headed northeast. By morning light, she could see clearly that they were somewhere in Hannover, and sinking fast. *Le Géant* barely missed a locomotive running through a farm. At last, it struck a tree instead. Nadar suffered a fractured leg, and even the experienced Godard brothers were badly shaken.

Nonetheless, this second failure reversed his fortunes, made Nadar even more famous. He wrote two books about his exploits, published by Hetzel, both very well received. He continued to take aerial photographs of Paris, and lured other cultural lions into his aeronautical society (Offenbach, George Sand, Dumas père). Nadar also financed a journal, *LAéronaute*,<sup>5</sup> that survived four issues. Gustave Doré drew the frontispiece, as follows: umbrella flying devices circle the cathedral spire of a medieval town; in the distance, a balloon floats over a locomotive crossing a hill. The railroad leaves puffs of smoke that tie the composition together. Doré, who had a childhood balloon phobia, could only bring himself to render *Le Géant* as a dot lost in a bad wind. Hugo called the balloon of Nadar a foible of science, a symbol of Napoleon III’s failures. Then it became an icon of Revolution during the Siege of Paris, when Nadar helped set up a mail service by balloon, over the heads of the Prussian army. In 1882, the symbolist Odilon Redon produces the etching *The Eye Like a Strange Balloon Moves Toward Infinity*, dedicated to Poe. Henri Rousseau’s balloon and Max Ernst’s (Freudian/oedipal) balloons are painted as fantasies lost in a wind.

But if Nadar failed as a scientist, he succeeded as a work of fiction. His greatest homage came from Jules Verne, secretary of the Society, and lifelong friend. Nadar had met Verne soon after the Revolution of 1848, helped introduce him to Baudelaire's translation of Edgar Allan Poe, not long after Verne had already written his earliest novel on balloon adventure (1851). Equally important was Nadar's extravagant, nomadic personality. I keep feeling his genetic imprint in Verne characters, particularly novels from 1863 to 1870, in *Nemo*, *Ardan*, and *Fogg*.

For Verne, Nadar clearly was a transition, a version of the Baroque gentleman scientist, now as bohemian, or even Victorian adventurer. One could argue, I suppose, that the 1860s was the last flowering of late Enlightenment science, the Amateur<sup>6</sup> before urban professionals took over. Or did they? This myth of the amateur scientist seems permanently engrained, true or false—the dotty, absentminded, unworldly adventurer, fearless but cushioned by daydreams. Of course, Nadar was much more canny than that, but myths always require extra helium.

There is also considerable debate about how far Nadar's influence actually went. The first of Verne's *voyages extraordinaires*, *Five Weeks in a Balloon*, was already at Hetzel's desk months before the flight of *Le Géant*. However, Verne lore standardly identifies the character Michel Ardan—in two novels<sup>7</sup>—as an analog for Nadar. Also, illustrations of Ardan feature the spiky, waxed mustache that was Nadar's trademark, spiraling upward like an *hélice*. Nadar was a pioneer of flight before it was invented, but what he invented for the most part was the balloon as a myth of escape. We learn to overcome the air, he wrote, which “overturns walls, uproots century old trees, and tosses the ship into impulsive currents.”<sup>8</sup>

Thus, for Verne, this feckless, brilliant man was part of a larger imaginary persona, manufactured in dozens of novels. We can spot the cues easily enough: a polymath who is an outsider; a scientist of independent means, or free at least of capitalist impulses—a “neo”-Enlightenment adventurer. But most of all, this persona belongs to a unique transition in popular literature, the late Enlightenment for mass publishing: cultural relativism circa 1750 turned into Verne's *voyages extraordinaires*. The apotheosis of the form came mostly from Edgar Allan Poe, who redesigned Baroque techno mysteries into modern fictions. Unquestionably, Poe was Verne's most profound influence, cited more than any other writer (except perhaps Hugo, but Hugo was Apollo that year, soon after the long-awaited publication of *Les Misérables*).

In *From the Earth to the Moon*, the Gun Club in (Poe's) Baltimore rallies behind Michel Ardan, as they prepare for their trip to the moon. Ardan makes the implausible seem so easy, but his pettiness can be maddening. By chapter twenty-five, it becomes clear that if he had his way, there would be no space remaining in the projectile for people. As the eccentric scientist, he wants to fill it with "useless trifles," even a Noah's Ark of pack animals—bullocks, cows, horses, donkeys—and intends to plant seeds on the moon. His enthusiasms and misogyny are charming and dangerous, certainly not the gloomy version we might find in Poe.

Like Nemo, the ultimate Verne misanthrope, a scientist adventurer could "pass for one of those cosmopolitan, curious of knowledge, but disdain[ing] action; one of those opulent travelers haughty and cynical, who move incessantly from place to place, and are of no country."<sup>9</sup>

## Poe Floats

Poe's writing becomes the summa of the Baroque Imaginary, the bridge from the late Enlightenment, from Neoplatonic myths of science to tales of science fiction. He was determined to generate literary sensoria, to bring the mysteries of shipwrecks and aerial descent into the spirit of reading itself. Like a master of theatrical effects, he promises to reveal "painful erasures and interpolations ... the wheels and pinions—the tackle for scene shifting—the stepladders and demon traps—the cock's feathers, the red paint and the black patches ... the properties of *histrionic*<sup>10</sup> (as in the factual/fictional story; both sensory and histrionic). Poe's visceral descriptions are legendary, of course. In *The Masque of the Red Death*, he calls them "voluptuous scenes." In *Hop-Frog*, they follow a court dwarf's apocalyptic revenge:

I see *distinctly* what manner of people these maskers are. They are a great king who does not scruple to strike a defenseless girl, and his ... councilors who abet him in the outrage. As for myself, I am simply Hop-Frog, the trickster. And this is my last trick.

In "The Philosophy of Composition," he promises to convert special effects in the theater to the *effect* on the page, to a shock wave in a story, where the narrator is revealed as unreliable, like a psychoanalytical *trompe l'oeil*. Essentially, the scripted space turns into the point of view of the madman trapped in his

interior, and thus astonishing the reader. In “The Man That Was Used Up,” the narrator (as if studying anamorphosis on a wall) bumps into a sack that is General A.B.C. Smith’s body. The general’s slave then screws back his cork leg, his head, inserts his teeth, then “adjusted therein a somewhat singular looking machine,” to restore the “rich melody and strength” of the general’s voice. Similarly in “Mesmeric Revelation,” Poe compares this interior special effect to the sleepwalker about to die, not unlike the late Baroque fascination with the statue that breathes:

I observed on his countenance a singular expression, which somewhat alarmed me, and induced me to awake him at once. No sooner had I done this, than, with a bright smile irradiating all his features, he fell back upon his pillow and expired. I noticed that in less than a minute afterward his corpse had all the stern rigidity of stone. His brow was of the coldness of ice ... Had the sleep-walker ... been addressing me out of the region of shadows?

In 1835, a hoax as *effect*<sup>11</sup> was badly perpetrated, then overshadowed by another hoax that somehow convinced readers across the eastern United States. The first came in June,<sup>12</sup> “The Unparalleled Adventure of One Hans Pfaall,” written by Edgar A. Poe, about a man escaping from his creditors by taking a balloon trip to the moon. But Poe wanted his hoax to be uncovered as a fake, a “canard.” He only pretended that all Europe was in an uproar about Hans Pfaall.

The crisis began up in the sky over Rotterdam. From behind a bank of clouds, an object emerged, “heterogeneous, but apparently solid,” and yet “so oddly shaped ... whimsically put together.” On the ground “the host of sturdy burghers” stands “open-mouthed.” At last, they “accurately discern” that this object is “a species of balloon.” A very ornate species, suggesting Baroque science, another special effect involving a “fantastic machine.” It hung in the sky like a bat, or a foolscap flying upside down. A tassel made of blue ribbon dangled from the bottom. The tassel held a basket, and in the basket was a gnome-like creature. The gnome looked well-dressed, very civil. He leaned outside the gondola, and dropped a letter. People gathered as the parcel landed. Then the balloon “arose like a lark,” and vanished behind another cloud bank. Meanwhile, the letter turned out to be a diary; by one Hans Pfaall, addressed to the College of Astronomers.

Hans Pfaall considered himself as an unremarkable man, a mender of bellows. I imagine him in a cracked leather apron. Rotterdam is made to look

quaint and Baroque; and it probably did look relatively quaint until its harbor and downtown were bombed by the Nazis in 1940.<sup>13</sup>

Let me try a bit of fictional scholarship: In 1835, from Poe's window in Baltimore, a city like Rotterdam probably looked mostly like a Baroque remnant, stuck inside the Dutch Enlightenment. Its streets very likely reeked of the seventeenth, and eighteenth centuries, like Delft or Antwerp, or even "old" Amsterdam. It was another one of those Netherlandish stadtholder towns he had never seen. Often in the nineteenth century, Holland is described like a Baroque microcosmos, a tiny holdover that still specialized in optical magic and Baroque philosophy. I am reminded of the old saying, still in vogue as late as 1835, that French armies may rule the continent but Germany rules the clouds. Rotterdam could easily be imagined as an extension of those quaint Germanies, a tired burgher city within a congeries of little states, not part of an industrial giant in the making.

But most of all, these quaint Baroque details reveal Poe's internalization of special effects. In 1835, like miniature "toys," the omelet of German and even of Dutch states—even of Prussia—were not generally viewed as industrial. More often, they were dismissed as feudal, atavisms, where old-fashioned craftsmen produced miraculous automata, and great philosophers like Kant or Leibniz hid out in quaint towns.

In the final page, Poe announces that the diary of Hans Pfaall was faked.<sup>14</sup> That trick—the literary magician showing his hand—is a cue for us. The crossovers shows us how a latency ends: 1780 versus 1840, an era about to launch. The cleft is marked spiritually by Poe's writing, and its effect after 1848.

In "A Descent into the Maelstrom," we follow Poe's retelling of the Baroque shipwreck, arguably the most influential literary storm ever written:

Never shall I forget the sensation of awe, horror, and admiration with which I gazed about me. The boat appeared to be hanging, as if by magic, midway down, upon the interior surface of a funnel vast in circumference, prodigious in depth, and whose perfectly smooth sides might have been mistaken for ebony, but for the bewildering rapidity with which they spun around, and for the gleaming and ghastly radiance they shot forth, as the rays of the full moon, from that circular rift amid the clouds which I have already described, streamed in a flood of golden glory along the black walls, and far away down into the inmost recesses of the abyss.

Poe devoted less than a quarter of his publications to these scientific canards.<sup>15</sup> Most of these express his fascination with deciphering and debunking, faking goldbugs about technology. But they also reveal his shift from Baroque science to industrial science fiction. After 1838 in the U.S., a feverish excitement for railroads has taken over. The interlude from 1780 to 1840 has ceased. The modernity of speed is being imagined, but in the spirit of Baroque tempests and terra incognita. The literary engine for Baroque imaginaries is reshaped. Eighteenth century sea monsters, occult scientists, Bougainvilles, Crusoes evolve into adventures for the age of railroads.

In “The Thousand-and-Second Tale of Scheherazade,” Poe retells the Arabian Nights as if it were The Persian Letters, Imagine Poe as Diderot taking inventory at the harbor of New York City; then weaving a fiction. This time Scheherazade has done some serious traveling. She woos her boorish king with stories about “conjurers” who build occult machines.<sup>16</sup> The magi have contrived a steam-driven sea monster. It has human worms on its back, smoke rising from its blowhole. They have an automaton that can beat any human being at chess. Another machine out-calculates “the united labor of fifty thousand fleshy men.” Another “thing” with fingers made of lead moves at incredible speed, to produce “twenty thousand copies of the Koran in an hour.” Industrial alchemists turn base metals into gold. They spin platinum wire thinner than a spider’s silk. They make the sun paint your portrait. They drop lightning, like a child’s toy, into your hand. They have trained infants and the commonest cats and dogs” to see a thousand times beyond the naked eye. They restore objects lost twenty million years ago. Finally—this wonder is very incongruous—they expect women to attract men by wearing lumps on their backs like camels.

“‘Stop!’ said the king—I can’t stand that, and I won’t.” He orders Scheherazade put to death. As the arrows pierce her body, she consoles herself with the thought that history will tell even more stories as wondrous as these, and that her brutish husband would be deprived of “inconceivable adventures.”

The line between hoax and technology disappears, into special effect about techno anomalies. Poe is fascinated by the latencies of his era. He tries to imagine industrial technology that has not yet worn out its Baroque mysticism, its Neoplatonic tromperie. Thus Poe, as the spokesman for 1840, gives birth to science fiction as anomalous, horrific, ruined, as sensory overload, as incredulity. He treats balloon flight as if Cyrano had written it in 1650, but was published in a New York newspaper in 1835. From Hofmann, Coleridge, Tieck—and the famous voyage of Henry Selkirk that inspired *Robinson Crusoe*—he invents a new

variation on the shipwreck, on terra incognita, along with standard Romantic pabulum on automata, mummies, corpses come to life; even on an alchemist at work during the California Gold Rush. Then he leaves those odd news fragments: In 1844, rumors persist that a troupe of Swiss Bell Ringers in New York were actually automatons. Poe debunks the rumor by proving that they ate and digested rolls and sausages.<sup>17</sup> Clearly, his techno fantasies were crossover experiments, on how to deliver literature that mesmerized like special effects in the theater.

Poe's *effect* offers an emotional response in threats that loom in the future, what lies under the floorboards (the sound of his beating heart!). His neo-Baroque Imaginary finds its way as hoax; and from hoax, it is encoded by writers like Verne into science fiction. From Verne's adventure books, it is adapted into special effects, even in the films of Méliès. That takes us on a curious journey, different from the sections on scripted spaces. For a time, the fantasy looked vaporous; but its subject is the fierce materialism that is roaring across Europe and the United States (and soon to absorb the entire globe, in waves of imperialism). It is an instant before the naked wood framing gets its clapboard, turns into a house. It is the anomalous moment captured as special effect.

In short, we are watching the Baroque fascination with the neo-feudal state transform into a fascination with individualism, with myths of material democracy. One might say we are taking a journey from feudal rigidity to fascism, with stops along the way. Special effects misremember, miscalculate, turn perspectives awry. But they are clues to a state of mind. Poe is so very clear about his structuring of state of mind; and his influence so profound, he is a very useful, emblematic figure for us. We do him justice by honoring his frustration with the present, his sense of unease, and what it tells us about special effects and fantasies to come.

## Afterword—Imaginary Baroque Time: “The Pit and the Pendulum” and the Cuckoo Clock

In Poe stories, clocks tick infernally. Finally, in “The Pit and the Pendulum,” a clock enlarges into a prison cell. Inside, a victim of the Inquisition is strapped to a wooden bed. From the ceiling, he notices a giant clockwork descending with “monkish ingenuity.” Its crescent blade has been set to open his chest. He follows its vibrations, each volley bringing him closer to the *effect* of death itself.

Then suddenly he is saved by French revolutionaries, who in turn will invent yet another crescent blade, the guillotine.

Poe has utterly internalized the Baroque mechanism, not by making the man an automaton, but by making the clock a prison. But in fact, by 1840, the Baroque clockwork, so essential to its special effects, had survived not as a prison, but in miniature as the cuckoo clock. These were sold as souvenirs from Baroque Germany, from the Black Forest, and were based on designs as early as 1640. Bellows to make sounds were added during the height of the talking automaton, in 1750. Finally by the nineteenth century, the mechanical cuckoo itself was added.

Thus, miniature Baroque mechanics survived into the industrial era. Cuckoo docks were hawked mercilessly by hundreds of peddlers from the Black Forest area. By 1860, in the wake of Germany's rapid industrialization, the last major feature was added. The housing took on the Bauhaus style, like a railway station house.

The cuckoo clock is a map of the Baroque Imaginary. Its tile roofs are often compared to chalets, and tiny Germanic duchies, to Swiss cantons, and Alpine retreats. They have remained a staple of tourism for 150 years, particularly in Switzerland. While visiting Lucerne, Mark Twain learned to hate cuckoo clocks. They reminded him of "gimcrackery of the souvenir sort," like Alpine crystals, photographs of scenery and wooden and ivory carvings.<sup>18</sup> Worse still, wherever he went their piercing "HOO'hoo! HOO'hoo!" followed him. "No sound is quite so inane. For a nervous man, this was a fine state of things." Twain finally buys a cuckoo. He plans to "impair the mind" of someone he hates back home. Otherwise, he will simply chop the thing to pieces.

Like the many special-effects clocks at city halls in Europe (some added nostalgically after 1890) the mystery here is not so much about the numinous, not about the power of Unseen God or of the Counter-Reformation. Nor simply about nostalgia. The power is emergent capital, or new tenements, or new job descriptions—the anomalous as a modernity about to bring on its shocks. Another imaginary machine roars faintly in the distance, keeping time. It is a train across the American continent (1869), a clock mechanism syncopated to the new industrial takeoff. This clock is 1,776 miles long.

## 8. Oz

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The Wizard comes from sideshows in the Midwest, works old tricks with stereoptic projectors, circa 1800—still vaguely remembered by 1938. (The Wizard has reinvented Robertson's Phantasmagoria, but no one remembers magic lanterns in Oz, not even in Kansas.) The kingdom of Oz, where he governs, is a walled city-state, modeled on a Baroque city (circa 1750); but its specialty, like a Hanseatic state updated, is industrial tool and dye. Along with master metalworkers, the optics awry is very advanced, the colors riper than nature. Specialists can retool the tin man. A makeup expert like Max Factor sets Dorothy's hair and complexion.

Essentially, Oz—the movie—is modeled on a movie studio with a gated entrance, like MGM in Culver City. It is Los Angeles south of the orchards of the San Fernando Valley (where Gable had a ranch). Or further north past the "Grapevine" (above LA. County), into the boonies toward Bakersfield; or northeast of the city into the capital of Sunkist orange growing, past the old citrus town of Fillmore. Perhaps the munchkins live somewhere near the Ventura County line, working in an imaginary Spanish mission, like the characters in Helen Hunt Jackson's novel *Ramona* (1884).

Kansas is Kansas/ L.A., the vast midwestern influence throughout Southern California by 1938—"Iowa West," as some old-timers used to call it. Kansas was not Oz enough, too much dust bowl; L.A. was closer to Kansas, more verdant, along the newly developed Route 66. Of course, the Kansas/L.A. of Oz started in the teens. L. Frank Baum, the author of the Oz books, already had identified Emerald City as Los Angeles in 1910. He moved to L.A. from Chicago, tried his hand at "photoplays," and died in Hollywood in 1919 (even before it was identified with movies, when it was called "Orchard Avenue," the boundary of farms essentially).

Like many "easterners" before him, he settled in the sanitizing climate of Southern California for his health (weak heart). He called his estate Ozcot,

and became a prize-winning horticulturalist. Hollywood was Winkle country—rustic—with chaparral, compared to the dingy train station and the new banks downtown. (Spring Street downtown was known as “Wall Street West” and so on). During the teens, Hollywood was very Midwest in its morals, a dry town before Prohibition. The orchards practically crept to the foothills. Though feature-length movies were shot there from 1913 onward (cheap open land), the film business would not claim Hollywood as its brand until 1922. Baum had been a rather quixotic entrepreneur his entire life anyway. Failing to make Oz films profitable was merely in character. By 1916, he lost interest in the movies. Anyway, the patchwork quilt of little movie businesses was primarily miles east of where he lived, closer to downtown (what is now Echo Park).

So we can make only so much out of L.A. as Emerald City: It wasn't the L.A. that tourists who come in tend to imagine; it was farm country. Thus we try another tact: Something else strikes me even more than L.A. as a boosterist extension of Kansas City and Iowa back in 1916 (by way of the Santa Fe Railroad that started the great real estate boom of 1885, and filled the city with midwesterners).

What interests me more, as part of special effects, is how Baum misread the Baroque tradition as Oz, the fairyland<sup>1</sup> as special effects; and that somehow “gilded-age Baroque” was already a primitive link to L.A. He morphs Baroque theatrical and mercantile engines with industrial machines. He blends the early-modern guild with the hand-tooled stage of industrial capitalism, before Ford's assembly line, when imperialism first encourages warring plutocrats to become the steel and oil lords of the earth. As another version of the Baroque Imaginary, gilded-age American know-how was often mixed with pure “bushwa.” Instead of stories about Victor Franksteins, they centered more on Horatio Algiers, on entrepreneurs climbing up by their bootstraps. It was the era of “Edisonades,” pulp boys' fiction about quirky scientists using their gumption to go ballooning into adventures, like Garrett Servis's *Edison's Conquest of Mars* (1898), a serialized story for boys that answered H.G. Wells' gloomier *War of the Worlds* (1897). From the French came a more introverted Decadent Baroque Imaginary version of Edison: Villiers de l'Isle-Adam's *L'Eve Future* (1886). Here we meet Edison as “the marvelous inventor of so many illusions.” He is the (deaf, Beethoven-like) “magician of ear.” We first encounter Edison as a weary natural aristocrat, in his dressing gown, in no particular hurry, time to muse. His laboratory is a clutter of magical retorts and gizmos, for “a Genie of the Ring in the Arabian Nights.”<sup>2</sup> This was hardly the Baroque Imaginary that Baum invents. His land has its gloomy margins, its

professional con men, its cons and pros. There is surely a distress call about fast-talking Midwest capitalism. But his Oz books are mostly an Edisonade, a paean to quirky entrepreneurs like Tesla and Edison, and the new American cities they were illuminating.

Baum splits off American industrialism in two directions. Amidst the kingdom of Oz, industrial marvels are diminished by carny nightmares (in a land of freaks and wonders). But these wonders suggest factories. The Emerald City itself centers around more undiluted hoopla. It clearly resembles an amusement park (or a world's fair) more than a movie studio. Every major city added an amusement park during the 1890s or soon after, in the years of the Oz books. In fact, Dorothy rides in by a cyclone (the famous roller coaster at Coney Island was called the Cyclone).

L.A. had three amusement park zones: Ocean Park, Venice, and the Santa Monica Pier, probably larger overall than Coney Island itself. Very likely Baum himself visited the piers (Lick Pier, Million Dollar Pier), and the various magical points of entry, from lagoons to canals to beach house fantasies. By 1925, Venice joins the city of Los Angeles, and is promptly punished for its carnal excess, forced to observe Sunday blue laws, and to rebuild the piers that had burned down. The culture of entertainment and theming still seemed immoral.

When Dorothy enters the Emerald City, she is given green spectacles, like Comenius's pilgrim.<sup>3</sup> They turn the city into illusion, a labyrinth of the world. It glows like radium, a very ambivalent and mystically scientific green (as if from a Baroque occult laboratory)—green as poisoned ground, or as fresh as new crops.<sup>4</sup> It was another bit of hokum by the wizard, an admitted “humbug.” A circus con man, his balloon had blown off-course into Oz, where, like Cortés, he was anointed a wizard. But he shows Dorothy and her friends how he fooled Oz by tricking paper, wire, animal skins, a ball of cotton.<sup>5</sup> He needed cover once he learned that witches nearby possessed real magic (true “faerie,” the preindustrial world of magic that Tolkien exploits decades later). The wizard feigns mystery; hides behind his dressing screen, inside his circus tricks.

The Wizard is trapped in the wrong century; a fin de siècle illusionist in faerie Europe, like the author of the Oz books himself. Baum invented a fairyland as techno-collage. First he borrowed heavily from the Victorian versions of seventeenth-century fantasy, as reconstituted by Perrault and the Brothers Grimm. He typically misremembers the three hundred tiny German duchies of early modern Germany as quaint, not hammered by the Thirty Years' War (yet war is very much in the air at Oz). His kingdoms clearly (but oddly) resemble those of the seventeenth- and eighteenth-century Holy Roman Empire, with

armies of eighteen soldiers (Oogaboo),<sup>6</sup> with mad recapitulations of the Thirty Years' War, but thrice removed, as received by way of children's literature in America, by way of England, France, and Germany.

Baum also made a sounding—faintly—of old Baroque obsessions with optics, from emerald lighting effects to Kaliko's magic winding spyglass.<sup>7</sup> He even built an eighteenth-century automaton updated in Tik-Tok of Oz (it was still in the air in many stories of the day, like Bierce's Moxon's Monster)<sup>8</sup> Most of all, the character Tik-Tok resembled an ad in the Montgomery Ward catalog. He was a "Smith and Tinkers, Patent, Double-Action Extra Responsive Thought-Creating Perfect-Talking Mechanical Man<sup>9</sup> Fitted with our Special Clockwork Attachment—Thinks, Speaks, Acts, and Does Everything, but Live."<sup>10</sup>

It is the whiff of Baroque, from the distance of America during the gilded age. But its traces are revealing. They work as a gentle critique of freewheeling capitalism. Baum equates Baroque systems of greed with industrial greed: The Nome, or Metal King, Ruggedo is a Carnegie as well as a Baroque merchant prince living underground in grottoes. Like a Spanish gold trader in 1560 Antwerp, or a free trader starting a Panic in 1873 New York, the Metal King is obsessed with bullion, "claims to own all the metals hidden in the earth," and possesses Baroque faerie magic.<sup>11</sup> It is part of Baum's literalism, like bran and pins and needles for Scarecrow's brains—his "bran new brains."

"How do you feel?" Dorothy asks.

"I feel wise indeed," he answered earnestly. "When I get used to my brains I shall know everything."

"Why are those needles and pins sticking out of your head?" asked the Tin Woodman.

"That is proof that he is sharp," remarked the Lion.

If *Candide* (before his Optimism evaporated) were a "magick" con man with a child's love of faerie—and a literal body, like an Arcimboldi man of books—he might have been a character in Oz. To make a fantasy as literal as possible is a running joke throughout Baum's stories. Every metaphor is as solid as something you buy at the hardware store. For example, imperialism, the search for raw materials, converts into an in-side/outside worthy of the Baroque—a walk-through that is both carnival and world's fair. In Rubber Country, "everything around ... [was] of a dull gray color. [And the road] was soft and springy."<sup>12</sup> Even rocks and trees were made of rubber, but did not seem so. The false was as real as a filmed movie set. It was Artifice as American innocence, what crit-

ics would say later of Disneyland, but did not seem so. The false was as real as a filmed movie set. It was Artifice as American innocence, what critics would say later of Disneyland, “the gentle art of fakery.”<sup>13</sup> Jo Candy harvests gumdrops and chocolates. Joe Files grows forests of steel file cabinets. Jo Clock runs an orchard of clock trees.

I am reminded of Roland Barthes’s essay on seventeenth-century Flemish painting, on obsessive tactile materialism, what he calls “the world as object in itself.” *Tik-Tok of Oz*, written while Baum was living in Los Angeles, is filled with these literalized squeezable places—hyper-solid homages to the artificial (Artifice).

## In Color

Color invades the MGM classic film of *The Wizard of Oz*. It was an emblem of the authority of the studio system of the thirties, the world as “an object in itself.” Oz was self-consciously a movie matte. The yellow-brick road was near the MGM commissary. The artifices of emerging film grammar as studio glamour operated not as self-reflexive new wave montage, but as theatrical, Baroque irony—to dive into the pure optical delight of false vision—in Busby Berkeley dance numbers, in white telephones, overdressed hotel suites. And in 1939, that same world-as-object is featured in the overripe use of color, notably in *The Adventures of Robin Hood*, in *Gone With the Wind*, in Disney’s *Snow White* a year before, and Fleischer’s *Gulliver’s Travels* in 1939, in color musical cartoons from every animation studio—and of course, definitively, in what were called “candy-box”<sup>14</sup> colors in *The Wizard of Oz*.

## City of Light and Boilerplate

In 1893, Baum is living in Chicago while switching jobs yet again, from journalist to salesman. He visits the Hall of Machines at the Columbia World Exposition in Chicago, and is startled. Westinghouse had been commissioned to light the Fair, to showcase the alternating current invented by Nikola Tesla. President Cleveland had turned the switch on to “The City of Light,” not only a pun about Paris, but also the blueprint for how to light an outdoor scripted space for over a century now. The view from the Court of Honor overlooking the lagoon inspired the lighting of Coney Island parks afterward, and led circuitously to

the lighting of Main Street in Disneyland (1955), and to casinos in Las Vegas today. The glowing outlines of the buildings seemed about to melt. So startling was the effect, it marked the end of the war that Edison waged against Tesla over which electric current was best. Next Westinghouse was commissioned to build the hydro-electric plant at Niagara Falls, in Tesla's polyphase system of alternating current generation and transmission.

Baum lingered at the Hall of Machines. He claimed that its radiance and design inspired the look of his Emerald City.<sup>15</sup> Inside the hall, he undoubtedly saw Boilerplate, the mechanical man who clearly influences the look of TikTok, and probably the Tin Man. Boilerplate was presumably his nickname with the press; he was a hoax invented in 2000. Boilerplate wore an upside-down metal soupdish helmet. He was supposed to be an iron soldier for wars to come. His inventor, Archie Champion (also at Westinghouse), spent nearly a decade promoting Boilerplate, but could not finance production. He presumably sailed and sledged Boilerplate down to the South Pole (1894); then circumnavigated the globe with Boilerplate (1901–1905). A doctored photo shows Boilerplate relaxing in 1893. He stands casually beside Champion's wife Lily while she leans over a rail, to get a panoramic view of the Fair.<sup>16</sup> Of course, all of this is an adroit hoax.

In 1903, the specialty watch company Helios presumably built a trial run of miniature Boilerplates. The master of the hoax, an expert on Victorian automata, Paul Guinan, "tried" to "rebuild" one of these.<sup>17</sup> The head resembles gas masks that soldiers wore in World War I, but as ornamental brass. The chest is as tubular as a Franklin stove, but gleaming with Baroque detail. Its knobby limbs were fully articulated, like an armature for special effects stop-motion seventy years later, or a thing in *The City of Lost Children*. I used to own a more square-shaped brass robot no larger than my thumb. I kept it in a tiny glass box. It had been cut and hinged by a local artisan in Mexico, where indeed these mechanical men have appeared in comic books. For over a century thousands of boilerplates have come down to us. They wait patiently. Patience has always been a virtue of the boilerplate; and of all hoaxes, including the Wizard of Oz himself.

## 9. Panoramas: A Crow's Nest Over London; Walking Through Gettysburg

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Throughout much of the nineteenth century, hundreds, if not thousands of panoramas were put on exhibit in Europe and the United States. Many were smaller than a school blackboard, or could be scrolled on an easel. But the most famous were leviathans, large enough to fill a hippodrome—and they were wraparounds, often 360 degrees, with up to an acre of painted canvas, even sound effects. As mass entertainment for only a shilling, panoramas most resembled wood engravings in travel literature, of the kind found in *L'Illustration*, *Puck*, or the *Illustrated London News*.

Like the illustrated press, they presented—or staged—the horror at Gettysburg, the path down the bazaars of Jerusalem; or along the entire Mississippi. Even the giant panoramas rarely lasted more than two hours, the length of a long play, or a vaudeville bill. But that can be misleading. Most of all, more than theater, panoramas were armchair tourism. They were cinerama for Victorians interested in imperialist adventures, but not in sweating to get there. There was no risk of malaria inside a panorama, even if it went to India or Africa. And no chance of missing an early dinner.

During the early stages of my research, I assumed that these great immersive whales were movies before the fact—the birth of cinema and photography. And clearly, dozens of panoramas were indeed cinematic, particularly moving (scrolling) panoramas, and the Kaiser (peep show) panoramas in Germany; and of course, the day-for-night dioramas of Daguerre himself.<sup>1</sup> But I have since changed my mind on what the evidence tells me. For this project at least, panoramas point toward another phenomenon altogether, not really cinema at all. They suggest modernist architectural space, a kind of ornamented modern architecture. They were not simply movies, but scripted, phantasmatic skyscrapers, Eiffel Towers and Ferris wheels before the fact. They mark a crucial transition in special effects from 1820 to 1900. They help me understand

why in 1995, at the height of modernist design, both Disneyland and Las Vegas take off.

To enter this modernist world of special effects, let us begin in 1829, as we did with Goldsworthy Gurney, and his quixotic “boiler” automobiles. We go to Regents Park in London, a center for panoramas. There we enter a very trendy panorama (over half a million visitors that year alone). It is called the Colosseum—as in colossus—though it was actually modeled on the Pantheon in Rome.<sup>2</sup> It stretches more than 130 feet in diameter,<sup>3</sup> rises more than seven stories. It dominates the street as a strange polygon, like a Hadrian’s Tomb for special effects.

Inside, at its center, a spiral staircase winds up a gigantic column that eventually fans out into very large galleries at the top. From the highest point—known as the ‘ball’—visitors see all of London overhead, twenty-two miles long, as if they were on the ball of St. Paul’s Cathedral. But in the Colosseum, there is always perfect morning light. It is always clear for miles, even though London was already smogged in by “groves of chimneys.”<sup>4</sup> The Colosseum had done nature one better. It was literally more than the eye could see. No matter how far away, the buildings never blurred. What’s more, St. Paul’s was closed for repairs anyway.<sup>5</sup>

An eccentric surveyor, Thomas Hornor had drawn all the cartographic detail (originally for a colossal map), then thought twice, found a backer (Roland Stephenson), and an architect (Decimus Burton). Nevertheless, it was essentially Hornor’s brainchild, though of course not the form: Panoramas had been popular for over forty years, led by the Scotsman Henry Aston Barker (after 1783), and two decades later, his son.

Estimates on the size of the Colosseum make it the largest of its day, from 24,000 to 44,000 square feet.<sup>6</sup> Flyers sum up the sheer yardage with a phrase that repeats often in panoramas afterward: *nearly an acre of canvas*. The Colosseum opened in 1826, immediately infuriated Wordsworth, as I will show later on; but was a vast success. Unfortunately, Hornor’s backer felt otherwise, wandered off to Paris, they say, and left Hornor broke in 1828. So, by the afternoon that we arrive, Hornor’s colossus is already in the hands of a “Committee of Management.”<sup>7</sup> ‘In the next decade, new owners would rebuild and presumably refurbish it, reopening by 1845.

This “improved” Colosseum, with added Moorish and medieval touches,<sup>8</sup> stood as a fixture in London entertainment until 1875, let us say, just in time for the Gothic Revival, by way of the picturesque. Guests were led to “even higher elevation, until the scene of wonderment ends with a small subterranean lake,

deep, dear, cold and dead still." Not a sound is heard except the "occasional splashing of the dew drop."<sup>9</sup> Then, even further below, was the Colosseum's famous Swiss Cottage, also improved—for the sweaty Alpine hike that you never take, along "rock scenery ornamented with waterfalls,"<sup>10</sup> the Swiss sublime so often mentioned by Romantics, now plopped in the midst of Regents Park.

But no matter how Romantic the descent or ascent, a chief selling point of the Colosseum was its "unobstructed view:"<sup>11</sup> "It was an improvement on the sublime. That became a primary clue for me, why I am convinced that the Colosseum is a futurist imaginary of the skyscraper. It is a scripted fantasy space suggesting the promise of a city in the air, also called the all-embracing view (the warmth of being embraced by power itself). Thus, it reminds me more of skyline cities about to be built than the early movies of 1900, the pale flickers; however grand their promise.

Put another way: the Colosseum was the city of circulation as an immersive fiction; but so early, over fifty years before the Chicago skyscrapers. As a reviewer for *The Scotsman* wrote (1829), once you climb higher inside the Colosseum, "the pure breezes of the fields" replace the smoking atmosphere of the street."<sup>12</sup> Suddenly nature unhinges from the land, and enters the sky. And hovering beside these streets in the sky are the new machines operating the Colosseum. They suggest the industrial mechanism that will turn boulevards into panoramic scripts decades later, in hundreds of photos and paintings.

London as colossus has been perfected indoors: "Room succeeds room, and avenue leads to avenue."<sup>13</sup> It is suddenly very simple to master London visually. And yet, it remains a labyrinth, but a labyrinth that sighs. It sighs because it waits for you to tame it: "The Tower of Babel was nothing to this."

Only think of the effect of a thousand pshaws, as many zounds, some few cackles of anger, vows of love ... some petulant whinings, and the thousand silly compliments, popping like pistol balls in every direction around your astonished ears ... The unfreezing of (the arctic) Novya Zembla was not to be compared to this audio expression of ... astonishment.

We see the romance of the noisy congested city emerging in comments like these. The roar of the street turns into "the drama of the scientific artificial contrivance." This drama—the machines that operate the Colosseum—produces a string "of magnificent illusions and scenes surpassing what imagination has painted in Caliph Vathek,"<sup>14</sup> or in the most gorgeous scenery of any Oriental fiction." Inside this London made easier by machine, you are invited to dream

on your feet. That is the sales pitch in the guide book for the Colosseum. It reassembles what Baudelaire would call “the opium of the mind,” “the Orient in Europe.”

Panoramic London rivals travel fictions, but now scripted theatrically inside a massive, proto-modernist space. Think of large panoramas as close relatives of the Crystal Palace (1851), and world’s fairs afterward. Or think of them as dense warehouses scripted to give the illusion of open space. Or as urban density exoticized in vast entryways in front of dime museums. Or the orientalist, machinic sprawl at Dreamland and Luna Park in Coney Island. Better still, consider the noise itself; The sound effects at the Colosseum compare to the buzz along Haussmann’s upgraded Parisian boulevards by 1870; or along the Ramblas in Barcelona (circa 1900); or in the impacted madhouse of crowds that Gustave Doré records in his classic illustrations of London (1871).

The paradox of the modern city (1850–1950) was already being imagined as early as 1829, through the Colosseums, and critics who de-scribed it. This paradox operates as follows: London may be smoky and suffocating on the street, but from the Colosseum above it, its possibilities become endless. It turns into a promise of endless opportunity, in the midst of endless intrusion. It may take 534 steps to climb the Colosseum, and 52 more to achieve “the bail.”<sup>15</sup> And yet, as an allegory of striving and overcoming, once we acquire the top, “the ascent is easy, the sky is fine and bright, the atmosphere is clear .... We can command constant sunshine.”<sup>16</sup>

It is an overcoming, as entertainment more than in a Nietzschean sense. But an overcoming nonetheless, a conquest of the ruthless scale of this new economy at least, of nature as brutal and overwhelming. It is a harmonizing script of nature. In Leon Pomerade’s *Panorama of the Mississippi River* (1844), a two-hour conquest of over two thousand miles “diminishes” the beautifully majestic Hudson” as it meanders, and finally is “reduced in appearance to gardens of flowerbeds.”<sup>17</sup>

This overcoming of scale, of Baroque labyrinth and of time, is noted often in panoramas. It is a reversal, in its way, of the Baroque special effect. To explain, let me return briefly to the Baroque technique: Through perspective awry (ceilings, sculpture, etc.), the Baroque illusion starts off by looking hyperreal, as real as nature could hope to look. Then the Artifice takes over; that takeover becomes the charm and message of the Baroque scripted space.

By contrast, in giant panoramas, the machinery can be heard humming right away. The trompe l’oeil devices also look obvious at first. That is part of how the wonder is set up. The viewer walks and waits, getting ready for entry:

Then the all-embracing view dissolves the trickery: the Artifice immediately gives way to nature. The machines conquer nature. This is no longer a Neo-platonic argument about the immaterial or occult science. The machine and the natural become indistinguishable all at once. The Artifice dissolves that second. Then this machinic nature embraces even further: it even improves on the natural. It makes landscape and cities very legible, like a garden as machine.

In effect, as special effect, the longer you stay, the more natural it becomes, like a botanical garden, or Central Park, or a penthouse view on a clear day. Your individual ego commands the horizon (or pretends it does). This is quite different from Baroque special-effects revelation—to be startled into knowing your place. Inside the panorama, you exceed your place; you exceed boundaries. You feel for a moment the success of overcoming. The story of panorama suggests that an economy of scale will not crush your ego. Instead, it will give you the means of full expression.

In much the same way, armchair tourism from the Crimean War forward shrank the world to the scale of double-page wood engraving in the *Illustrated London News*, or *Harper's Magazine*. That epic condensation converted easily, like a sponge in water, into the scale of a building where you could take an exotic trip. Walk down the narrow bazaars of Jerusalem. Or feel the acrid smell of artillery fire during the Battle of Gettysburg. Or cross the trackless wilderness along the entire Canadian border. Or better still (this was a charmed experience, I suspect); go 3,500 miles by rail, from New York to San Francisco in only two hours, along a 40-by-8-foot painting “stretched on a wire” (Hardy Gillard's Great American Panorama, 1873).<sup>18</sup>

There is no doubt that giant panoramas glorified imperialism, often reenacted great moments of colonization. But they also made a point of showing the parallels between imperialism and the new imperial metropolis. From cities like London or New York, the new machine world looked on from a commanding height. Like the famous Philadelphia Exposition of 1876, featuring the early electric turbine, these wonders could be presented indoors. And with machine wonders came veracity eloquence, and clarity; like toy soldiers come to life on the floor. After all, one of the original models for panorama was the military view of the general watching the battle from overhead. He mentally guides its fortunes from a hill, or if he is in a panorama, from the sky itself. He is safe from harm, but in the fray.

## Flanerie About the All-Embracing View

How might Walter Benjamin have completed this chapter, since he certainly was aware of the panoramic impulse, in popular illustrated books of the 1840s in Paris, in the illustrations of Grandville? Oddly enough, he devotes infinitely more time to the arcades, these neighborhood shopping streets covered in glass and steel, what others in 1829 called the “Arabian Nights Effect,” what I call bottled light.

The arcades, weaving out mostly from the Palais Royale on the Right Bank, were practically in ruins by the 1920s, as in Aragon’s novel *Le Paysan de Paris* (1926), Benjamin’s inspiration for the Arcades Project. And the panoramas were all but gone, even the acres of canvas missing, for the most part. They were symptoms of the death of nineteenth-century entertainment culture.

Benjamin collected traces of its erased moments through quotations, like a moment from a longer conversation, now lost. I will try that for the panoramas, to let their vision give us a clue. Clearly, the unobstructed view was somehow linked to Romanticism and to the Enlightenment, to the exotic and to the encyclopedic, much as cinema was. Inside the panorama, both machine and nature blend as one—the all-embracing view—a dream of technoid utopia that haunts science fiction, like driving with the top down on an open road.

## Panoramic Visions

Wordsworth, *The Prelude*, chapter seven (1850, poetic reminiscences): As one might expect, the old curmudgeon Wordsworth is deeply troubled by a changed London in 1827, and by the dense sham on its streets. Finally he visits “the [panoramic] spectacles within doors, where birds and beasts” by sea and land are “express[ed] as in a mirror.” But they are expressed horribly in these panoramas, so like the entertainments of this degraded city, clearly “imitations fondly made [but] in plain confession of man’s weakness ... with a world of life and life-like mockery...with blended colours.” They are an aesthetics of “rabblement.”

Dickens, *The Uncommercial Traveler*, chapter thirty-four (1861):

Mr. Barlow has “Invested largely in the moving panorama trade,” as a lecturer with “a long wand in his hand.” Dickens clearly sees the Pickwickian silliness of travel by lecture.

In *Pictures from Italy*, chapter eleven, called a “rapid diorama,” where “the blue and bright sea” rolls below the window of an inn famous in robber stories. The crags are picturesque, overhanging “tomorrow’s narrow road.” In the morning, the clouds reveal a miracle at daybreak: Vesuvius across the sea “spouting fire.”

Gerard de Nerval (1805–1855). The great French poet, novelist, and *feuilletoniste* journalist/critic was obsessed by foreign, exotic travel, like his friend Théophile Gautier. He reluctantly visits the Diorama of the Flood in Paris, in 1844. Daguerre had once owned the Diorama, then went broke. Later, the Diorama burned down. Nerval writes a *feuilleton* (a column) about its reopening. Of all the biblical touches, he is struck most by the city of Enoch, an “antidiluvian Paris,” of “archaic and Cyclopean splendour ... across a huge valley as far as the horizon.”<sup>19</sup> Its walls, battlements, palaces, skyline, its bridge in ruins encircle a “rough sketch of a Tower of Babel whose upward spiral menaces the heavens.”

Slowly, this horizon grows overcast. Clouds darken, turn red. The sea glows while the sun drops. Then “Water starts washing down the walls and ... into the squares and streets.” The winds spread the flood as if from an overfilled vase. It overwhelms the walls of the city. The population “scrambles for safety on roofs.” And finally, like intimations of TS. Eliot sixty years later, the world ends in a “dense drizzle.” Though the people are painted clumsily, the radiant skies and the play of brightness and darkness “all serve to make a true theatrical spectacle, filled with, its own surprises, emotions and dramatic twists.”

Xue Fucheng, Chinese diplomat, at a Parisian military panorama (memoir circa 1890) site, vividly commemorates the Crimean War, (or an imperialist adventure):

A big round chamber is lined with huge paintings along its wall, and ... lit ... from the roof. Standing in the middle of the room, looking to all sides, one sees fortresses, mountain ranges, rivers and forests all positioned in massive array. Soldiers and horses from the two armies dash in confusion: some soldiers are on horseback, some lying on the ground, some running away, some pursuing, some shooting, some manning cannons, some holding up banners, some pushing gun carriages, and together they form a continuous stream. Where a shell lands, fiery blasts break forth and smoke envelops everything. Whatever is lit turns instantly into ruins: houses are drained and walls are burnt. As for the soldiers, their arms and legs are broken, their blood soaks the ground, and they lie there, either resting or stone

dead; it is an unbearable sight. One looks up and sees the bright room hanging in the sky, covered partly by passing clouds; one looks down and sees a velvet-like grass and the vast expanse of river basin. One almost forgets that one is in a room and wonders whether this is not the battlefield. Only when one reaches out to touch it does one realize that it is just a wall, just a painting, just an illusion.

*New York Herald*, on *Pomerade's Panorama of the Mississippi River*, September 7, 1850:<sup>20</sup>

“Mimic steamboats” are “blowing of steam in real high-pressure style.” Two hundred and sixty-four mechanical figures are animated by a heated furnace. A prairie fire is a “devouring monster” approaching “at the rate of a racehorse.” Then “a snail steady light” appears, “as night sets in.”

In 1849, fifty thousand people, three quarters of the population of Saint Louis, see the *Dissolving Views* panorama of the burning of St. Louis.<sup>21</sup> One night, the paintings themselves go on fire, and are lost. That would indeed make a curious scene in a feature film. The fictional possibilities are difficult to resist.

Similarly, Banvard's *Seven Mile Panorama* burns down in 1850, in Newark, New Jersey. Its small cotton fibers caught a spark; and the building also went down.<sup>22</sup>

From the play, *Diorama, or Moving Scenery* (circa 1850):

A steamboat passes upriver toward the Catskills. “See how beautiful the majestic Hudson, diminished by distance to the size of a rivulet.” A Leatherstocking hero offers to guide a couple through the wilderness. Recently, he shot an artist who forced himself on a woman. Let that be a warning, he says, “for fools who travel to see wonders.” Like America itself, he has been “raised to the clouds and descending on the mountain top.”

By 1850, panoramas add steam power and even steamships. But most of all, even into the late nineteenth century the term panorama meant a tourist's-eye view of the hubbub of the city or a picturesque travelorama of exotic locales. Both the rustic fantasies about escape from the city, and the urban myths of the crowd, were contained inside the culture linked to the panorama. The term became almost synonymous with armchair tourism (tens of thousands of travel wood engravings, mostly after 1855).

## Walking Through Gettysburg

Battles were the most immersively cinematic of the panoramas, particularly the Battle of Gettysburg by the indefatigable Paul Philippoteaux, 50 feet high and 4,000 feet long, a tabernacle for northern citizens who gloried in, and mourned, their victory in the Civil War. Similarly, the Battle of Sedan was memorialized in Berlin (in 1883, to honor the pivotal victory against the French in 1870): 7,000 square feet of canvas; real weapons; cardboard soldiers in action. Visitors at first are afraid to collide with the horses. “The air seems to be filled with swirled-up dust and mist.” John Ford meets Kurosawa seventy years earlier.

## The Ur-Shape

Dozens of imaginary and real special effects repeat the parachute shape of the Colosseum in London—particularly covers of science fiction magazines from the twenties and thirties. This is indeed the ur-shape of the skyscraper, even for the Sony Pavilion at the Potsdammer Platz in the new Berlin.

It is also part of the encyclopedic impulse of the nineteenth century—the shapes and the sense of “the all-embracing view,” in scrolling or moving *feuttil-letoniste* panoramas, and in the shilling guidebooks to panoramas. Even more important, newsreel shorts from the first decade of the twentieth century were scrambled panoramic encyclopedias—the so-called “actualities” and “nouveautés” that played in a stream. And the wide-angle look of the great prairie in the United States, as the trains colonized the western frontier. Finally, panorama is indeed both egalitarian and imperialist, the spirit of industrial utopia.



## 10. The Virgin and the Dynamo: World's Fairs, 1851-1964

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In 1900, at the Great Exposition of Paris, the historian Henry Adams underwent a special effect almost as a religious experience. The electrical dynamo on display terrorized him, as if he were facing an angry mountain god. This animated machine—the Baroque toy grown into a leviathan—had replaced nature itself. Planet Earth looked disappointing by comparison, spinning on its “old fashioned wheel.”<sup>1</sup> This dynamo was the improved “new wheel,” humming at “vertiginous speed,” encased in forty feet of hardened steel. It transmogrified a few tons of grimy coal into supernatural energy.

Yet by 1900, it was a familiar miracle. On exhibit beside the dynamo was the steam engine, as usual, that big puffing thing. Adams sensed no fundamental schism coming. The dynamo would continue what the steam engine had started, perhaps speed it up. Adams did not assume that electricity would transmogrify capitalism in a thousand directions. The twenties and afterward would make that quite plain; 1900 was still early. Only the theatricality of the dynamo was stunning—a moment of wonder before this sculptural machine, like the automatons of the eighteenth century amplified a hundred times. Adams compared the dynamo variously to the cathedral at Chartres and to virgin cults, like the cult of the huntress Diana. He saw the dynamo somehow as a feminine mystery, like the worship of fertility, or of the chaste huntress—an “animated dynamo.”<sup>2</sup> He assumed changes were coming; electrical things would amplify the “multiplicity” that he saw in cities. But beyond that, his crystal ball dimmed.

It is nearly impossible to guess what the new electrical leviathan might bring, even for critics with Adams's startling insight. It was still the unnamable, a great mystery. But it was also old hat. Bigger and bigger machines as miracles had been exhibited at world's fairs since London's Crystal Palace in

1851. The scripted message was panoramic—about the colossus of steel and energy—but also something else.

Historian Rosalind Williams, in her landmark study of Parisian world's fairs, noted the shift in how machines were exhibited. In 1889, the Gallery of Machines was “desecrated like a ‘secularized temple.’”<sup>3</sup> Food products and displayed machines were mixed together, like an augur of supermarkets and Home Depots to come. Something like the commodification of machines on display was clearly emerging. This meant a theatricalizing of machinic space, drawing upon panoramas after 1850, as they added more machinic elements in front of the paintings—steam engines, steamboats, and mechanized metal characters on tracks.

New ways to stage the industrial were emerging. The decorous and frivolous were disappearing. In 1851, machines looked much more like accessories. They ornamented a drawing-room ambience, like other oddities from around the British Empire; they were freakish things still. Now machines on display had joined the much expanded entertainment culture. They suggested the growth in consumer marketing, and less about dime museums or exhibits traveling the circuit.

The space and presence of machines were changing as well. These engines on display developed a Wagnerian *gesamtkunstwerk*. They increasingly were staged alone in theatrical canyons, in evocations of factories and railroad stations. Some scrolling or gaudy filigree might still cover up the various machine parts; but even that was about to change. The engineering of the machine was exposed much more—as in dynamos. Colossal machines turned into sculptural labyrinths, awe-inspiring sculpture. They were automata grown to the size of rooms. They were filled with brilliantly cut but industrially made steel parts—no longer handmade.

## Massive Exposure

Machines on display were becoming a kind of theater. They were the featured player in an industrial scripted space. The old decors (Baroque/Art Nouveau tracery) were swept away. These were great monoliths with nothing embracing them but blank space. The cult of the massive, so essential to the later shopping arcades in Cleveland, Milan, and Moscow, meant *exposed* space, as in massive new department stores after 1860; larger gaudier park displays after 1860; ever larger halls devoted to the machinic culture. And running parallel to these

scripted machinic spaces was the cult of motorized circulation. Even before the automobile took over, photographers and urban boosters concentrated on deep-focus boulevards. Increasingly, the displays at metro stations matched the gaudy store windows. At ever grander train stations, the foods and entertainment begin to grow into an afternoon circus.

Even before the nineteenth century ended, an industrial-strength scripted space was being rediscovered as an article of national pride, in world's fairs, in downtown monuments to imperialism and the state, in huge museums that echoed imperialism—all these sponsored publicly by the large “industrial” nation-state. Unobstructed space was a scripted myth about overcoming, and the limitless; and the promise that with each year, colossal machines would get even larger.

By 1900 (and certainly by 1913), dime-novel illustrators as well as architectural *fantassistes*<sup>4</sup> (the Futurist Saint Elia as the most famous) both imagine buildings hundreds of stories high, with trains buzzing a half mile off the ground. Even Tatlin's famous tower (1920) was to exceed the Eiffel Tower, and be motorized in honor of Cubo Futurism, be an animated dynamo. The “vertiginous” as scripted theater was already fully imagined, even before the skyscrapers of New York were built in the twenties.

The special effect of modernism often suggested being over-whelmed by mass, and by the masses. Something very alien stared down at you, like King Kong off the new Empire State Building. It was both democratic and fascist. In science fiction magazine covers of the 1930s, it was a menacing robotized space station, often drawn in a parachute shape similar to London's Colosseum in 1829. Or it resembled Hugh Ferriss's phantasmagoric architectonics (1929), his twenties New York imaginary city plan.<sup>5</sup>

This newer modernist space was often supposed to draw your eye upward, toward bottled light from a distant skylight. By the fifties, to look upward might literally generate a case of vertigo, invite you to get dizzy from a reasonably blank plaza, facing a glass curtain wall. This modernist vertigo turns into fantasy allegory: a monolith of some kind, as in *2001: A Space Odyssey*—the vertigo of modernist space as blank; both fertile and alienating, like deep space itself; at the edge of the solar system.

Empty space becomes both fertile and intimidating in modernist special effects, like an extension of Wagner's blackened gulf between audience and the lit stage at Bayreuth. The blank and unobstructed suggest absence as presence. This exposure was an invitation to add more special effects. After World War II, these modernist spaces were filled very quickly. They were scripted to meet the

consumer side of entertainment that continued to grow. Finally they become very busy scripts indeed, particularly after 1955.

## The World as a Script

To fill these industrial spaces, scripts exaggerated the paradox between large and small, particularly at world's fairs. They themed their paradoxes around global imperialism between 1860 and 1920. They delivered the spoils of conquest in condensed form, the world in about three hundred acres, even in your pocket, if you bought the catalogue. They became laboratories for converting global industrialism into leisure.

At the Chicago World's Fair of 1893 (the Columbian Exposition),<sup>6</sup> architect Daniel Burnham designed what became a prototype for Coney Island, for Venice, California; and even Disneyland. The attractions were on an artificial island that looked verdant, surrounded by lagoons, with gondoliers from Venice.<sup>7</sup> George Ferris's Wheel dominated 264 feet above the grounds, for panoramic views, symbolizing a fundamental change in how illusions were toiled.

A cylinder and spindle mechanism, with takeup for "monkeyshines" (strips of photographs on a reel) had just been perfected by Edison (and Dickson).<sup>8</sup> It would realize Edison's dream of a visual phonograph; and compete as an automated magic lantern. Edison's new kinoscope was announced for the Fair, but was first demonstrated at Johns Hopkins instead (May, 1893). Within a year, kinoscope parlors opened in New York.<sup>9</sup> At the same time, this fair nearly bankrupted architect Louis Sullivan, because it resisted the look of the new skyscraper; and launched a Gothic revival Beaux Arts architecture that became standard in cities throughout the United States.

The Midway Plaisance was even more prophetic—a mile-long boulevard filled with entertainments, touches of burlesque, ostrich farms, a giant automaton, beer halls, animal shows, freak shows. This lineal innovation already suggested how easy it would be to script any urban boulevard into a carnny, a consumer promenade. The alternative to the public sector had been a long time in coming, and now was formally introduced. In Venice, California, huge amusement piers would be added, as Midway Plaisances. Luna Park and Dreamland both featured a carnny boulevard. It was a way to merge panoramic circulation with the entertainment economy that was quickly turning toward

consumerism, with advertising, boosterism, even fast food, and the remnants of Baroque illusion.

World's fairs pioneered a new industrial epistemology for public culture. In 1876, at the Centennial Exposition at Philadelphia, the attractions were classified in what became the Dewey Decimal System for libraries across the United States. It was here that Mr. Bell's telephone was introduced, as well as typewriters and mechanical calculators that soon became standard for offices. Many of the key artifacts were then gathered, as the basic collection for the Arts and Industry Building at the Smithsonian Institute.

Increasingly, world's fairs became a schizoid laboratory for contradictions within modernism, for anti-industrial nostalgia mixed with odes to untrammelled industrial expansion (especially Paris 1900, St. Louis 1904, San Francisco 1915, Chicago 1935). World's fairs were a strange marriage of geometric modernism and special effects. They were living proof that modernism was not removing special effects at all, merely building larger containers for grander illusions.

The career of master designer Norman Bel-Geddes is a classic story. He was born in the year of the Chicago Exposition (1893). He left college to work as a theatrical designer in New York, did inordinately well, even worked in Hollywood for a short time (1925). In 1927, he was invited to design illusions for the auto industry then by 1931 a "House of Tomorrow" for *Ladies' Home Journal* that helped launch the fad for streamlining (also the standard look in thirties Hollywood art direction).<sup>10</sup>

Bel-Geddes became the leading voice for streamlining in transportation. Speed lines and teardrops served as pauses on houses and airplanes, to exaggerate the illusion of speed. He designed cars, ocean liners, trains, made the news often. In 1932, his book *Horizons*, with its imaginary vehicles, inspired new models at the Union Pacific Railroad and at Pan American Airlines. But in 1937, his master stroke came as an advertisement for Shell Oil—the City of Tomorrow

This, in turn, led to his assignment at the 1939 New York World's Fair. He designed the General Motors Futurama exhibit, very much the hit of the Fair (in every history I find).<sup>11</sup> Visitors sat on a motorized platform, along a train 1,500-foot long, with about six hundred seats. A music and voice narration was synched differently for each passenger, as you took a panoramic "flight" over a river city in the year 1960, with seven-lane freeways, radio-controlled teardrop cars, and detailing equal to any panorama of the nineteenth century.

Clearly the major innovation were the freeways (often called parkways back then). Only the Arroyo Parkway in Los Angeles had already been built (1939—essentially opened during the year of the fair). Since 1934, various plans had been floated for a new superhighway system in the United States, as part of the master-planned escape from the Depression. Scale models for these guarded rights of way, at standard speeds over forty-five miles per hour were set up for many cities during the war years, the future on a tabletop (many of these are still in storage today).<sup>12</sup> The train set suddenly became a tool for “The World of Tomorrow” (the slogan for the 1939 fair). But Bel-Geddes’s summation of Futurama, in his next book *Magic Motorways* (1940) caught the attention of President Roosevelt, and clearly was one of the blueprints for the freeway system after the war.

Oddly enough, Bel-Geddes’s other exhibit at the fair was a burlesque peep show with mirrors (“Crystal Lassies”).<sup>13</sup> Like many great industrial designers, he was at home scripting industrial illusion or de-signing a peekaboo erogeous zone. He worked comfortably for the movies, or designing industrial accessories. The line between industrial space and special effects was easy to blur, and today has become almost impossible to find.

Many keys to good theming were already in place at Futurama. The collusion between viewer and program was particularly brilliant—a blend of control and comfort, very well-articulated. Futurama “just tickled you,”<sup>14</sup> one visitor remembers. “You snuggled into the seat. They were partitioned, two seats, then a partition, like a box at the opera, your own private show—and then you got the lovely feeling of eavesdropping from your box seat as you winged it over the futuristic landscape.

“...The end was enormously clever. The last you saw of the diorama was a particular street intersection of the future, up close. Then the chairs curved and got you off, the futurama ride was over—and there you were at the precise intersection, life-sized. ‘All eyes to the future,’ the (recorded) narrator said.”

You even got a souvenir button to pin on your clothing. It declared, even a bit ominously, given the war that had just started in Europe:<sup>15</sup> *I have seen the Future*. Attractions like Futurama (standard after 1939) were immersive journeys designed as flyovers, shrinking the world into a museum diorama, then seeming to parachute you onto the roofs somehow, as if the World of Tomorrow had been built while you were out on the road. Clearly, this was supposed to be a tonic against the Depression that refused to end. And that trope survived for decades afterward, as the scripting of reassurance, in themed environments throughout the United States. It pointed to the end of

chaos and carnary as the roots of theming, toward a suburbanized clearing away of urban problems—displayed early on in Flushing Meadows, over a former garbage dump, what had been a “pestilential eyesore.”<sup>16</sup>

The souvenirs pointed to another evolving feature in modernist special effects: it specialized in miniaturizing the events. We can see this already at the Crystal Palace Exhibition of 1851. There were dozens of movable books about the Crystal Palace, as well as anamorphic maps, dioramic toys. The vast coverage in the press, particularly the wood engravings in vast inserts, shrank the world that already had been shrunk. The fairgrounds housed practically every racist platitude imaginable, in huts, in mini-villages, on display like automata. It was an imperial fantasy; then this fantasy became armchair tourism. Memory could be shrunken down like pieces of the cross, for pilgrims preparing to shop in the future.

World's fairs were trade shows essentially, selling the new styles, and building new taste markets. In 1939, the style of streamlining was everywhere, in the rocket train designed by Raymond Loewy, or in Henry Dreyfuss's *Democracity* (imagining 2039). But when the same location grounds were opened again, for the World's Fair of 1964, changes in style were very manifest.

Walt Disney was the featured player by 1964. He shrank modernist geometries into something like Italian Burattino puppets, for “It's a Small World After All.” He found corporate sponsors for the Pirates of the Caribbean. Disney's animatronic Lincoln was the hit of the fair, the most special effect. Even Robert Moses was amazed. As the *New York Daily News* reported: “Those who have seen Lincoln ‘come to life’ are stricken with something akin to awe.”<sup>17</sup>

## Blurring the World of Tomorrow

Using 1964 as his laboratory Disney blurs three modes of industrial special effects into one. Since the late fifties, he has been planning a permanent world's fair as a theme park for a new suburban development, where people would live in a Disney theme park in Florida. For a time, “it” was simply called the XC Project, then EPCOT (Experimental Prototype Community of Tomorrow), to be part of Disney World in Orlando.

I open a Disney World souvenir book from 1986, turn to EPCOT. No one did actually move in, of course (not until the houses went on sale at Disney Celebration fourteen years later). The General Electric area at EPCOT catches my eye, called *Horizons*, like the title of one of Bel-Geddes's books. It is housed in

a building that resembles Vegas, a neon collage that somehow blurs the Vegas Strip with New York's Great White Way. It "looks like a gigantic gem,"<sup>18</sup> the ad copy reads. Inside this gem, Tomorrow does radiate security, a lovable paranoia. The family of the future lives underwater with robots.

Two influences come to mind. In both, the new theme is immersion as a renewed imperialism. First, at the extra modern Futurama in 1964, designed by Henry Dreyfuss, visitors travel underwater, to cities under Antarctica, where vacationers ride "aqua-scooters." Modernist capitalism will carve out new frontiers. Industry will mine the ocean, level the jungles, harvest the desert. Skyhigh cities will add even more circulation, until the sidewalks themselves will be motorized. The second influence is more retro: it harkens back to the Baroque Imaginary, to Disney's continuing fascination with Jules Verne's *20,000 Leagues Under the Sea*—as a movie and a ride. An animatronic Jules Verne, very much the Victorian gentleman, floats inside a plush space capsule reminiscent of Bel-Geddes's Futurama. He stands ready to colonize the moon.

"Pioneering visual effects show future cityscapes, space colonies, floating cities and desert farms."<sup>19</sup> In a habitat under the sea, children "equip themselves with recirculation gills for a field trip to an undersea kelp farm." Then through "Tomorrow's Windows," families thrive in movie sets, because outer space feels like an immersive movie. Indeed, eighties Hollywood evolved toward space operas anyway, often with a nod to Kubrick's *2001: A Space Odyssey* (1967). Sixties minimalist styling organically reappears in the design of home computers. The auto industry keeps promising more screens as well, shinier software, and "sleek prototype cars of the future."<sup>20</sup> Car interiors start to resemble jet cabins inside fighter planes. Scripted spaces from the sixties increasingly match the Cold War defense industry, like one of James Bond's cars.

Throughout the eighties, the Cold War was fading. In its place, high consumer theming won out. Even world's fairs stopped glamorizing missile defense systems. Finally, Disney's Tomorrowland was cancelled, like another aerospace contract. First, in 1994 at the new Disneyland Paris, instead of Tomorrowland, there was Discoveryland, brassy and bronzed with Belle Époque wonders—and hosted by an animatronic Jules Verne. Soon after, Tomorrowland was scrubbed at Epcot in Florida; and finally in 1998, at Disneyland Anaheim. In its place, a retro of Tomorrows arose like a cinnamon bun. Mechanical Jules Verne took viewers through Méliès Earth to the Moon (1903).

A news reporter surprisingly asked me why Disney was getting rid of the Future in Tomorrowland. I explained that "the future" was no longer a nostalgic

place. It didn't have the "weenies," as Walt would say. Besides, Disney was now on the DOW; it could be held liable for the Future. Disney knows better than to showcase a problem where they might be found legally or morally responsible. And most of all, the Future had turned drizzly anyway—very cyberpunk. In special-effects films of the nineties, Tomorrow was dank, infested with mutant cyber-snakes. Order had broken down. Warlords and cycloplan cyborgs battled for the scraps.

So, there was little point competing with that globalist doomsday. Even during the boom of the late nineties, the prognosis looked uncertain anyway, as if we had already "seen tomorrow." The great unraveling had started. The Future was simply not the happiest place on earth; and it was not modernist, not even very panoramic. It was occluded, with bad plumbing. The new order of things would not require world's fairs. The Electronic Baroque was too horizontal and hierarchical to take much stock in progress.

The future was increasingly a tough sell. From the gala opening in 1955, Tomorrowland (the worst budgeted area of the park) was always notoriously behind schedule; and often failed to deliver the extra rides it promised (on Disney's TV show no less). Monsanto's House of the Future warped into scandals about Monsanto producing Agent Orange for Vietnam. Even Autopia became an evil satire of gridlock on the freeway to Anaheim. Indeed, nothing ages faster than the future. You look at futuristic ad campaigns from a year ago, and the mascara is already cracking.

Better to return to the nineteenth century, where Main Street had started, to the history of the Future, as an Industrial Baroque Imaginary. And of course, Jules Verne was practically on the payroll already, with the Nautilus and Nemo. Wasn't it strange that years ago General Electric's slogan used to read: "Progress is our most important product." We grow jaded to that tomorrow. General Electric was now the largest transnational company in the world (2003). (Then reversal of fortunes: As of July, 2022, General Electric—unable to compete—is about to be dismantled and restructured.)

What then replaces the Future? Certainly in our Tomorrow (2003), world's fairs, theme parks, themed streets and malls are all close cousins within global tourism. Public tourist memories are then harvested as architecture. That is the 2003 Tomorrow according to the Electronic Baroque. Memory streams are literally archived digitally. Imagos—fragments from these streams—are then threshed by analytics and demographic research. Of course, selling memory has always been good business. That is very much the heritage of world's fairs. Collective memories are relentlessly portable. Any tent show is a travel-

ing memorial. But today, these memory bytes are increasingly “synergistic.” They flit across markets quite easily, as a permanent world’s fair about absentmindedness, a scripted mental blur. Gaudier special effects meet tighter demographics. And still, with all that, our tomorrows will mostly flop. I can feel it. Neoliberalism is flattening out.

## The Grove

For 2003 in Los Angeles, the Grove is the hit of the season, very much a Disneyland version of a city street as a mall as a world’s fair. Its 576,000 square feet—over fifty shops and a gaudy art-deco movie complex—are joined to the venerable Farmers Market (1934), a tourist destination that evolved from a site for trucking farming during the Depression. The Grove serves the densest core in Los Angeles, the Wilshire Corridor, certainly one of the most urban in southern California, with great demographics.

The building costs for the Grove were only \$160 million, a pittance since it drew 13.5 million visitors during its first year of operation, a million more than Disneyland. Now it draws about twenty million people a year. Its developer, Rick Caruso likes being compared to Disney, “one of the true geniuses.”<sup>21</sup> He wants his properties to have that “feel good” experience. A toontown trolley crosses “an old-fashioned street” echoing European cities as much as American small towns; and Frank Sinatra’s swinging fifties as much as Disneyland.<sup>22</sup> It “is modeled after a grand old downtown with architectural facades inspired by the art-deco era of Los Angeles,”<sup>23</sup> “the thirties and the forties”—essentially the era of the 1939 World’s Fair.

Its “mélange” of styles<sup>24</sup> turns modernist transportation into nostalgia. A facade that resembles a Victorian railroad station is enhanced by a mini-Victorian-trolley that runs by electric induction. The Midway Plaisance has been updated into a First Street retail spine quite similar to New Urbanism. That means a “smorgasbord” of styles: a town square modeled after court-houses in New England,<sup>25</sup> but with Italian touches. The store facades include “château ledge stone, granite, lacquered Douglas fir, patinated copper and bronze, wrought iron and brass accents, oiled hardwood planking and marble mosaic.” The streets are “paved in porphyry, a costly Italian stone.”<sup>26</sup>

Years ago, Rick Caruso had an epiphany along the Via Veneto in Rome. He saw buildings four hundred years old recycled for Gucci or Versace. He decided to “re-create” the look “of older buildings,” as if they had been retrofitted for

fancy chain stores.<sup>27</sup> He would build a world's fair of shopping decors, what one critic calls a "walkabout cyclorama"—the name for American panoramas of the late nineteenth century—"a smiley-face simulacrum of America before snipers, before terrorism, before bio-warfare."

Caruso is even toying with entering politics. But he senses how disempowered politicians are these days, how weak any vertical system of politics has become. "I'm very frustrated by government," he explains. "I'm not sure I would last ... because I'm much better as a dictator." According to Ray Bradbury,<sup>28</sup> there was a movement in the sixties to draft Walt Disney for mayor of Los Angeles. Disney is reported to have said: "Why should I be mayor when I'm already king?"

Probably the only part of industrial modernist special effects that is flourishing is the ride. An invention of the late nineteenth century, the Switchback roller coaster in Coney Island, the Ferris wheel at the Chicago World's Fair (and gloriously at the Prater amusement park in Vienna), the ride was a reenactment of the anxieties of urban life, of the hyper-stimulated city of 1900 that Henry Adams discusses. The ride was the dynamo as a bucking bronco, the machine taking you over the falls. The ride is sim-death, the ultimate industrial form of three acts in a few seconds. It has become the model for immersive special effects, as in the "ride" movie, and in video games of the late seventies. To achieve the ride is the ultimate compliment for any computer game.

So, the city of circulation has survived as immersive theater, or as shopping nostalgia, even while it loses its vertical connections to a powerful nation-state. The ride is what remains most of all: the player alone pretending to face the elements, inside a scripted space with a touch of theme park/world's fair/adventure movie.

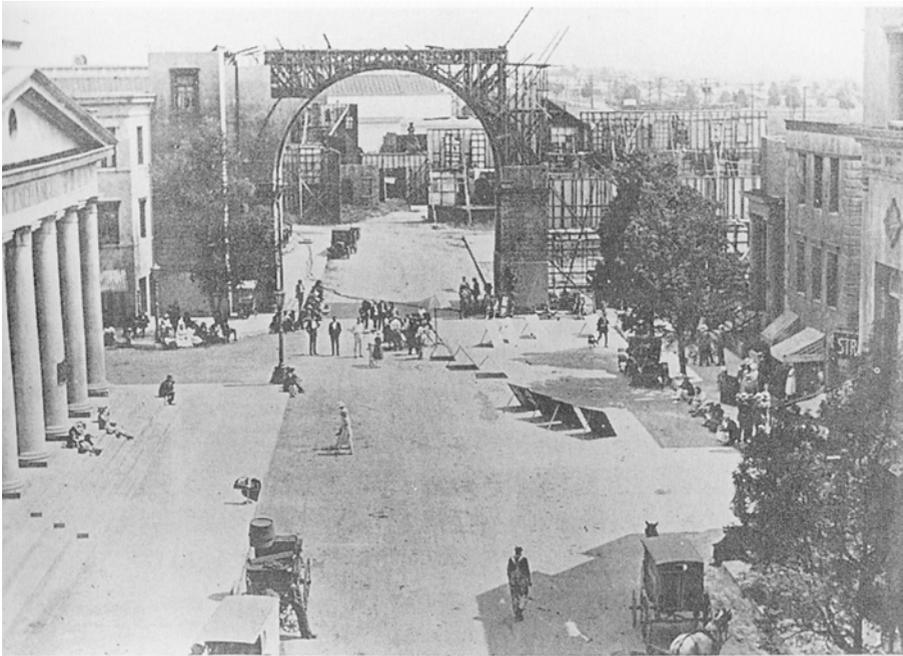
At world's fairs, the Future was supposed to be the end of "history". But eventually time catches up. In Flushing Meadows, Queens, a tower left by the 1964 World's Fair stood in ruins for many years, visible from the highway. It resembled a radio tower in East Berlin, the dying embrace of the Cold War.

From the Dynamo to the Grove, modernist special effects suggest an ambivalence that fits our sense of the Future right now. The dynamo spoke for a vertical system of power, but our world is horizontal. It gets more miniaturized, rather than more massive. It specializes in the condensed, like a mini—world's fair, or a remote-control device, a "smart" cell phone, a hot installed inside our blood system, similar to the Body Wars ride at Disney/MGM Star Tours in Orlando. The visitor is miniaturized to the size of a pinhead, then injected into a patient; and on to a rescue mission. Something of the world's

fair has survived in these simulated industrial rides, large and small: the world pretends to come to you. Buckled in our seats, we never leave, only arrive.

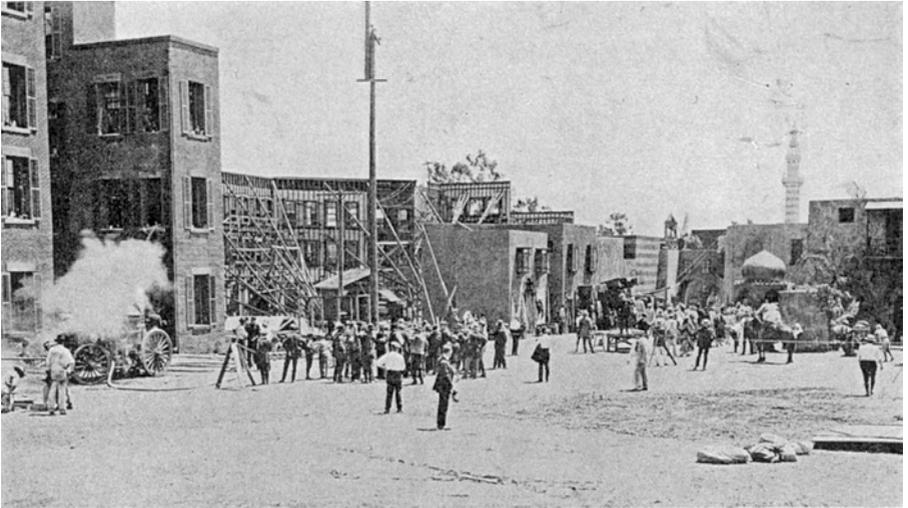
## **Part III. Alien Thrills: Epic Shocks on Screen, 1895 to the Present**

Painting the Darkness: As a kind of theater, machines played tricks with optics and sculpture. That was common to Baroque scripted spaces. It also became fundamental to special effects on the movie screen. Finally, through immersion, these effects even painted the darkness itself.



*Courtesy Goldwyn Pictures Corporation.*

*How a Movie Set is Made, 1923.*



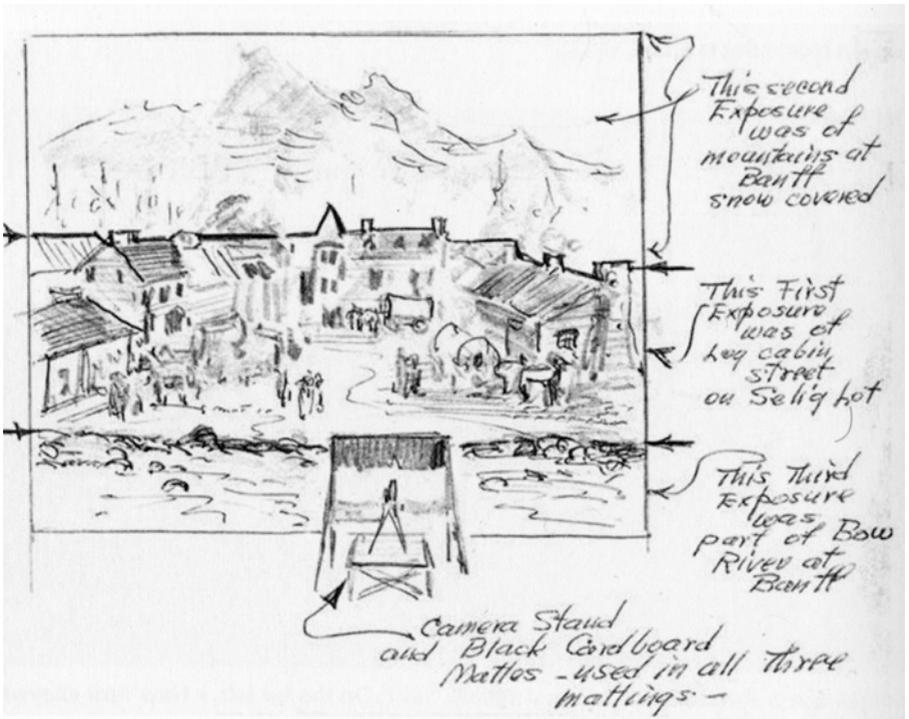
*Two cities share the same lot in Los Angeles.*



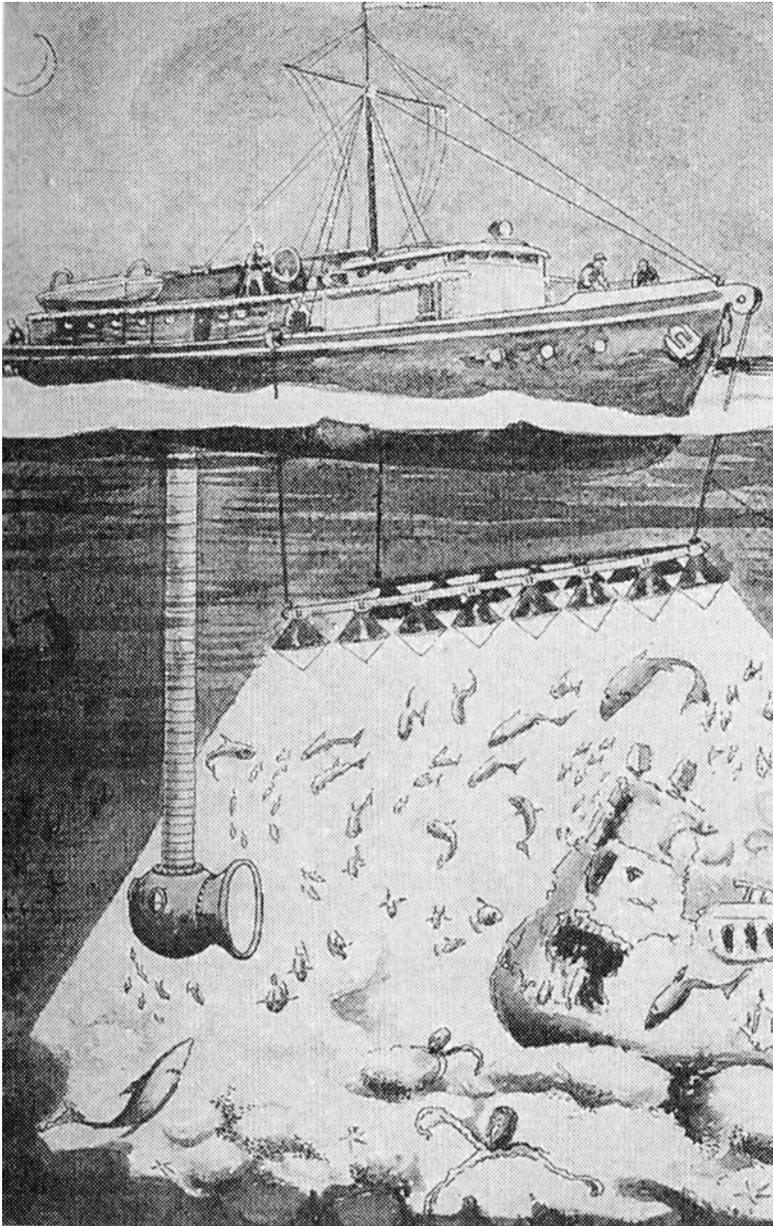
(Courtesy of Universal Film Company)

THESE PHANTOM-LIKE FIGURES SURROUNDING THE BOY IN "THE ROAD TO DESTINY"  
WERE PROCURED BY A DOUBLE-EXPOSURE OF THE FILM.

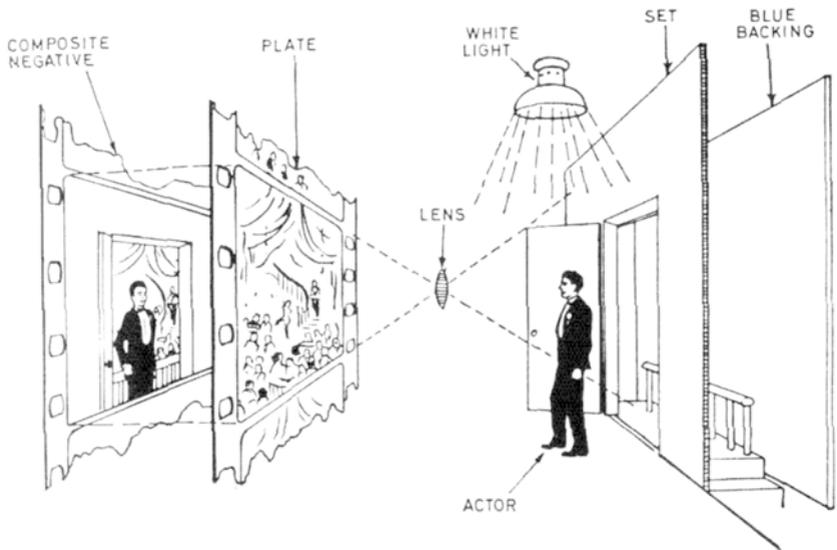
*Double-Exposed phantoms in the film The Road to Destiny (1914).*



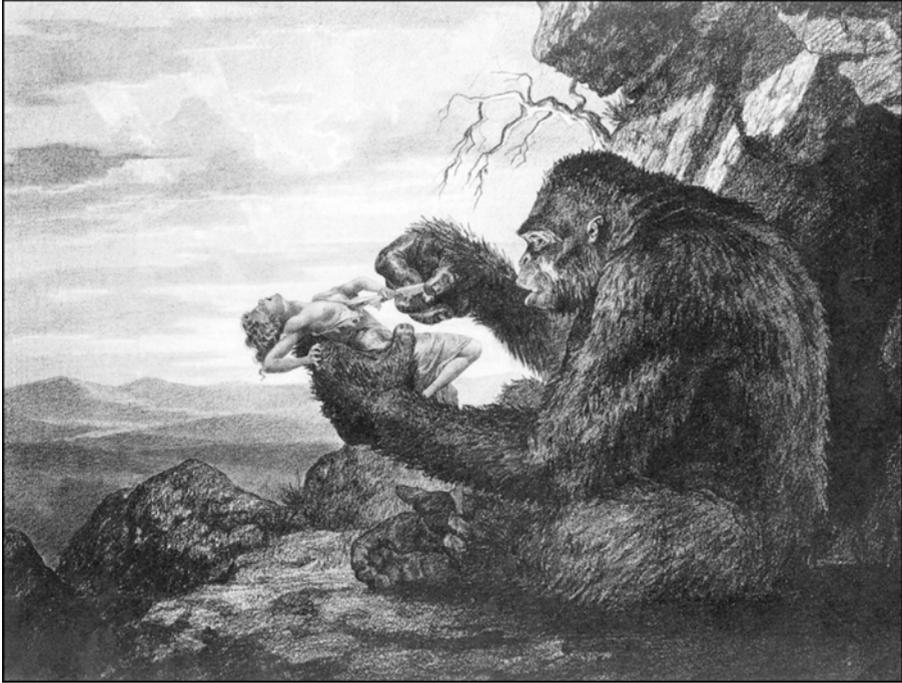
Multiple exposures put Los Angeles at the foot of the Canadian Rockies. Image by Norman Dawn, at the Selig Studios in East LA, for the movie *The Spoilers* (1914).



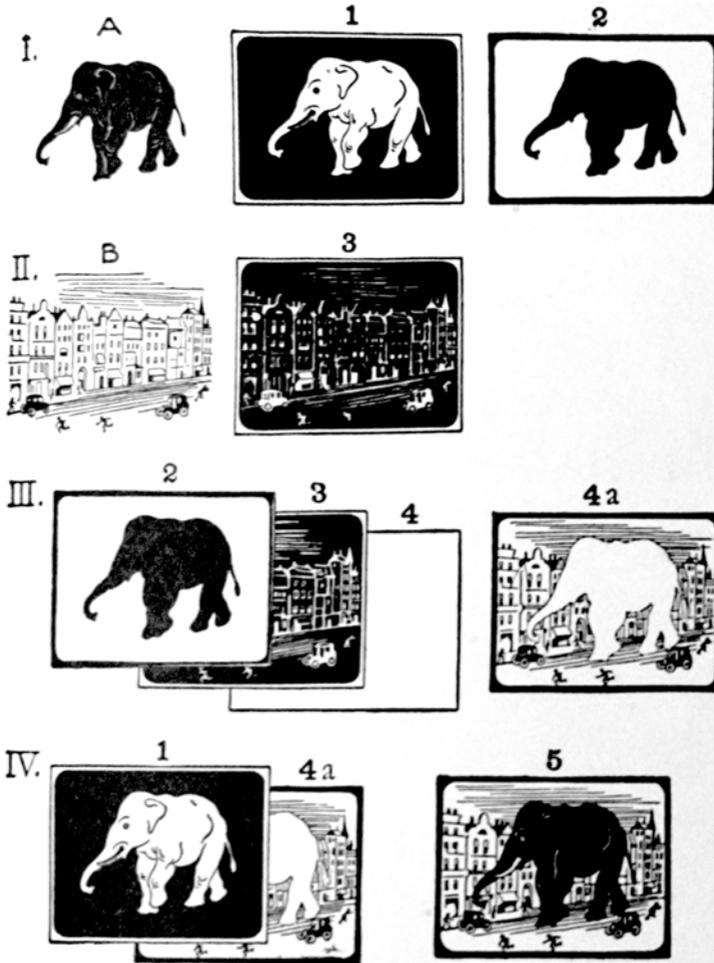
*From 1914: until 1955, J.E. Williamson specialized in “submarine eye,” underwater shooting, particularly silent-screen adaptations of Jules Verne’s Mysterious Island. Diagram from 1927.*



*The Dunning-Pomeroy travelling matte, widely used in the early sound era, notably for Tarzan the Ape Man (1932) and King Kong (1933). A carefully bleached positive filled the portion left undeveloped on a black-and-white negative. Diagram from 1929, process first devised in 1925.*



*Early Production Sketch: King Kong (1933). Willis O'Brien added considerable nobility to this grizzled ape and gave him more chivalry. His ape is less stuffed, less clinical; and Kong's lair less like a rugged men's magazine.*



FOUR PHASES IN THE COMBINING OF TWO NEGATIVES TO MAKE ONE COMPLETE—UNUSUAL—PICTURE.

(Scenes A and B are to be combined.)

1. Negative from scene A. 2. Positive from negative 1 printed extremely dense to make it like a mask. 3. Negative from scene B. Mask 2, and negative 3, used to make the first printing on fresh film represented by 4. 4a, result of this. Image on negative 1 is now printed on 4a, to come out as shown in 5.

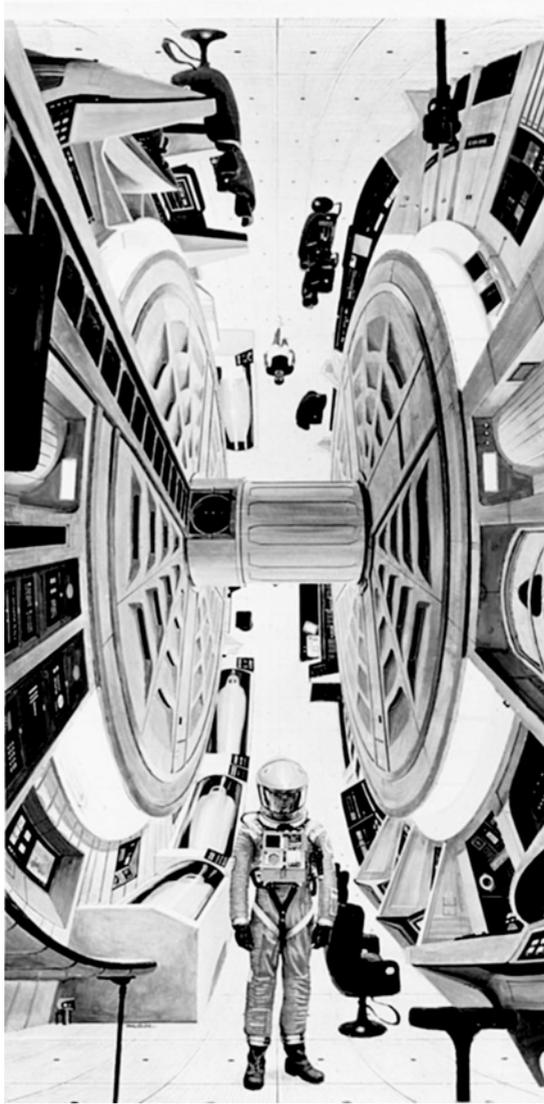
*Effect for movies, 1927 (borrowed from trick photography). One film negative can be copied (reversed) on to another.*



*Dressing and painting a lady robot for War of the Worlds (1952). Her scenes were finally cut out of the film, probably too much like a thirties Buck Rogers serial.*



*Martians Over LA, sketch widely used in ads for The War of the Worlds (1952).*



*A mechanized set for 2001, even more claustrophobic than the movie itself. Built at a cost of \$750,000, this “giant centrifuge” revolved at a speed of three miles per hour, to capture the interior rhythms of the ship.*

## 11. Movie F/X: Making Heads Roll

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A jump cut can be a special effect, particularly if it shocks the audience, as in *Psycho*, or Godard's *Breathless*. However, this shock will vary immensely from one year to the next. In 1895, the head of a dummy rolling off the axman's block was enough to be called a shocker, that of Victorian expression—in Edison's peep show *Mary Queen of Scots*.<sup>1</sup> The director, Alfred Clark, stopped the camera before the ax fell, told the players to stand still, then replaced the actress with a dummy. This famous anecdote has been called the first “known example” of special effects in cinema.<sup>2</sup> The trick became familiar enough to be given a name, “arret—the stop—” by the *Philadelphia Public Ledger*. It has been called an “elementary device ... as basic to the future of visual effects as the invention of the wheel was to industrial development.”<sup>3</sup>

According to legend, a few months later, Georges Méliès accidentally came upon the same device.<sup>4</sup> His camera crank broke down for a moment, leaving a gap. On film, an omnibus on Place de l'Opera seemed to transform into a hearse, and a man into a woman.<sup>5</sup> The “substitution shot” was put in the hands of a master who would employ it in hundreds of films. The Robert-Houdin Theater that Mies retooled has become legendary. He installed trap doors, smoke machines—all the accoutrements of a magic act or a variety theater and converted these into dissolves, apparitions, disappearances, metamorphoses. As art direction, he drew literally upon the *fantaisistes*, illustrations from earlier in the century by Doré, Grandville, and others. He would become the Baron Munchhausen of cinema. And yet, by 1912, he was considered a has-been.

The encyclopedic newsreel short, the *actualités* and *nouveautés*, dominated many theaters for a few years, until finally the longer form, feature-length melodrama, became the stock-in-trade at movie theaters (essentially after 1915). Within these market shifts, the codes of reception, as in special effects, were not stable. And the gadgets used for effects, the mirrors and cranks and mattes, tell us very little in themselves about what the audience saw in their

mind's eye. The most convincing model for me is Thomas Gunning's "cinema of attractions"—"the shock of cinema in an exaggerated form," a "cinema of instants."<sup>6</sup>

## Myths About Walking

Paris 1907: Theater lets out. An hour of novelty and trick films had been playing. They were shot on streets nearby. The audience leaves to wander the same streets. The movie version interferes ironically. How indeed do these tricks compare to the scripting of real streets and spaces? I am convinced that, for the most part, cinema erases the city, on behalf of Artifice. But to explain, I need to clear away a few myths. First of all, the term *spectacle* is a little too broad. It misses subtleties that went into special effects in 1895 (and for that matter, 2003). The cities where film began from 1895 to 1910—especially Paris, London, New York—were *not* dominated by spectacle, despite the world's fairs, the freak shows of all kinds, the morgue shows, the ghoulish and carnivalesque frills.

These cities were screaming fish markets, dominated more by rush hours than spectacle, by massive real estate expansion, by new trolley systems, what film historian Ben Singer called "hyperstimulation."<sup>7</sup> They were very densely packed, the infrastructure on the streets severely overlapped. What's more, the entertainment culture of 1870 was dying off as much as it was emerging: the number of panoramas and magic lantern shows did indeed die off by 1900. Then by 1920, the dime museums, the circuses, vaudevilles, and upscale restaurants were suffering, though in varying degree, from one city to the next.

If anything, movie special effects were recreating the urban composite—the nerve-jangling psychopathology of streets layered with vendors, with classes bumping shoulders, even with violent class warfare directly on the streets. They were Baroque illusion responding to the jittery implosion that was the metropolitan city. The movie shock is very different than the panorama. Instead of harmonizing the machine-as-nature, they turned the city of circulation awry. They suggested a world where the straight path is occluded by massive political and economic tensions, by the whiff of disaster to come. They tended toward allegories about urban memento mori (intimations of mortality inside the imploded city). They scripted the flash that seemed to many the flash of anger in an emerging chaos, as classes mixed more than they had, and the economies veered toward war.

This emerging chaos was faked through *composites*. That is an essential place to start. Movie “shocks” from 1895 to 2003 have relied on this complex tool most of all: *Then and now, special effects are fundamentally the art of compositing. They are layers superimposed in space, or in time.* By *space* I mean matte backgrounds; by *time* I mean substitutions. These composites also split the screen, inserted miniatures, mattes, moving mattes, glass shots, use double-exposure, dissolves, fades, masks in velvet.

Most of these compositing effects evolved out of the trick films at the turn of the century, Méliès in particular. They were music hall *phantasmagoria* mixed with trick photography. They also were deeply linked to print culture: they brought popular wood engravings to life, into palpable space. Méliès was part of a bumper crop of producer/filmmakers who specialized in novelty films from 1896 to 1910, but literally “drew” heavily from tricks in print or the music hall: Stuart Blackton’s Vitagraph in the U.S. (i.e., films on “liquid electricity”); Pathé in France; Robert W. Paul<sup>8</sup> in England.

Dozens of trick-film companies flourished by 1905. Their very abbreviated films look like frantic seances today. Electricity itself—and X rays, invented at the same time as cinema—suggested a new Baroque Magick Science, along with fantasy illustrations of video telephones.<sup>9</sup> Skeletons leaped through the smoke, like variety acts. And farces: hundreds of smirking burlesques about home life. The errant husband tiptoes home late at night, but is found out by way of trick photography.

There were epics in trick films as well, also abbreviated as if on a short fuse, but the set pieces were splendid, particularly Méliès’s Baroque sea creatures,<sup>10</sup> or moonscapes by way of Jules Verne and H.G. Wells, with a touch of operetta staging. *Tableaux vivants* suddenly twitch into life—stillness into pixilation. Drawings frame the characters, illustrated vignettes swarming around them like a fishing net.

After 1896, practically every animator, following the path set by Emile Cohl, produced trick films along with cartoons, including the young Disney (the *Alice* series, 1923). In New York, Fleischer’s cartoon *Koko’s Earth Control* (1928) spins Manhattan skyscrapers like a bag of blocks. In one scene, cutouts of the skyline collage diagonally into each other; this accidentally resembles modernist documentaries about cities by Vertov or Ruttmann. Taking this further, all forms of surprise movie montage might seem to qualify as special effects.

## Mattes

The *composite* is fundamentally a *matte*. Standardly—before the computer algorithmically turned all of these into data—mattes came on glass, as mirrors, or through gauze (very much like magic lanterns)<sup>11</sup>

*Glass shots* (as in paintings and transparencies),<sup>12</sup>

*Mirror shots* (for sharper-focus superimpositions, including miniatures);

*In-the-camera matte shots*. Where part of the frame was matted out in front of the camera, while shooting. This began simply as an opaque card, or as glass matte, a trick established by 1911,<sup>13</sup>

*Bi-Pack Optical Printing*: One film image is projected on to part of the frame, while the camera shoots the rest of the frame. Thus, the *moving matte* for wipes and various overlaps, as well as in action (traveling) mattes. Bi-pack gadgets evolved into optical printing machines,<sup>14</sup> some as big as a room, long capsules inside a massive steel housing, long enough to hide a body, as if for an MRI scan. But big or just on tabletops, the same principle applied: a projector sends back images to the camera, which, in turn, keeps shooting the scene.

Until the nineties, optical printing was the workhorse of special effects. It could engage as many as three printing heads at once—to wipe, slide, and composite movement. But by 2000, it was gone, relegated to obscure downstairs rooms at the few effects houses in L.A. The printers became a piece of nostalgia, a machine twenty years old, operated often by old-timers near retirement, for an ever-decreasing cadre of older clients.

Of course, masterpieces in optical printing, like Zbigniew Rybcynski's eight-minute tour de force, *Tango* (1980), are very useful case studies. They remain very timely, particularly for young digital filmmakers. In *Tango*, the optically printed montage contains over thirty loops composited into a single space. Thirty people do not meet while they drift through an obvious movie miniature of a room, in hyper-saturated colors. The composites were exaggerated, to deliver a strangely aching pleasure, a balletic sense of Artifice.

No body bumps into anyone. No one actually exists. They only composite side-by-side. It is alienation by looping. The room has no air, only movement. Each loop repeats like a dog burying and digging up the same bone.

First a boy loses a ball through a window, and climbs over to fetch it. Then a thief breaks in, and makes off with a package. A girl enters by a side door. She loses herself in homework, doesn't see the man doing a handstand two feet away. Another man climbs beside her to screw in a lightbulb, but falls badly and howls like a banshee.

No heads turn, not even when a naked woman walks slowly across the room. She sits on a bed. Bored, she slips on a dress. Meanwhile, a young couple on the bed try to have intercourse. The boy grabs his girl too eagerly. The girl closes her legs, and dashes away. He is left bare-assed and dismal.

On the same bed, a mother re-diapers a baby, while an old man spanks his little dog for diddling there. A drunk weaves around everybody like a plume of smoke. The plumber carries a toilet past a man blindly eating his breakfast. And so on, at least thirty loops in all.

I have shown *Tango* fifty times to students, and it always seems to startle them, particularly the digital designers. Those optical-printer techniques have disappeared. But showing the seams of an optical composite remains strangely powerful, perhaps even more so in an age of smooth texture maps, and seamless Flame<sup>15</sup> effects.

*Traveling Mattes*: A part of the frame is masked off during shooting, then action added there later on.<sup>16</sup> For generations, the mask was blue screen. On television, the blue screen was color-keyed (chroma key).

*Rear Projection*: Action projected behind a screen, then filmed behind the action, for example, the rearview mirror inside automobiles during a car chase: (circa 1935). Or a fuzzy ocean behind Fred Astaire while he leans on the rail of an ocean liner, and pitches woo. Rear projected imagery sharpened during the television era. Chroma-key systems quickly became a standard in feature films as well.

*Mirror Mattes*: These made it easier to insert miniatures without showing much of a seam—classically in Fritz Lang's *Metropolis*. Miniatures of the New York that Lang had seen the year before were placed in a corner, then reflected off a mirror tilted at a forty-five-degree angle. This removed glare as the image bounced on to the mirrored matte in front of the camera. I had student designers rebuild this device, called the Shuftann technique,<sup>17</sup> and was amazed. The miniature indoors suddenly transported itself to the patio, against a smoggy hillside. It was indeed Baroque, three acts in a few seconds. For an instant, I felt like someone watching the Kinetoscope in 1895.

## The World Through Glass

In an age of optical scanning, the look of optical printing is considered a bit artificial today by *f/x* people in the industry. At the same time, in outdoor malls, the staging begins to look more like movie mattes, or *trompe l'oeil*. Like

a movie set before the cameras roll, it becomes a Baroque sculptural collage. Even model drawings for mattes resemble handbooks from Baroque eras.<sup>18</sup>

The space appears as trompe l'oeil; then the shutter clicks. This clash of fake with real is filtered smooth once it passes through a lens. That causes a diffusion effect, like the world through glass before you open the car window. The glass collapses the middle ground into the background. That diffusion turns all film into a hidden effect—the erasure of difference; the invention of a flattened solidity.

The movie set is Baroque (Artifice invading nature). Once that Artifice filters through the lens, the movie becomes panoramic (the machine replacing nature). We walk through the Baroque, while it vanishes on film. Silent filmmakers occasionally toyed with this parallax. Buster Keaton made that part of his signature. A building collapses on Buster. The gap in the door frame saves him. But he looks strangely unconcerned, even though the facade weighs over a thousand pounds. Its sculptural solidity turns into trompe l'oeil against the flat screen.

The air itself can be trompe l'oeil as well. And Los Angeles's climate has its own diffusion effect—a very, very faint fog over a semi-arid sky. It was called haze in 1890, then smog in 1943. Clouds almost never seem to float overhead in L.A., unless it is humid. They sit like matte paintings over the mountains, in deep focus, on the horizon.

## Silence/Silents

After early experiments with the trick film (1895–1908), movie effects matured during the twenties, most of all in Germany; and very much in the spirit of Baroque immersion. At the UFA Studios in Berlin, very elaborate trompe l'oeil sets were built, then dusted with Expressionist lighting, particularly for *The Cabinet of Dr. Caligari*, *The Golem*, *Nosferatu*, and Lang's *Mabuse* series and *Metropolis*. At the same time, in the U.S., Willis O'Brien vastly improved model animation for feature films—armatures inside skeletons, essentially automata in stop-motion. He launched what became standard in American action and horror films. His early reels (1919) still amaze students, much the way they apparently astonished Houdini in 1922, at the height of his crusade against paranormal fakes.<sup>19</sup>

Thus, the effects movie grows from absurdist vaudeville trick films to the epic. In turn-of-the-century bedroom farces, like those made famous by Émile

Cohl, men's bodies explode, vanish, fly on their mattresses like biplanes. In Cubist, Surrealist, and Cubo-Futurist effects films, the absurdist composites take on more aestheticized ironies, as in the feature length *Aelita*<sup>20</sup> (Soviet Union, 1924), perhaps unintentionally campy—a very stagy, costumed allegory about a Cubo-Futurist Mars brought to revolution by a documentary, factographic earth).

Similarly, but very intentionally, Dada-inspired substitution shots and collage are composited in Duchamp's silent films; and in Man Ray (most of the work) and Leger's (only at the end) *Ballet Mécanique*. The most famous substitution shot in experimental film of the twenties came from the butcher shop downstairs: a cow's eyeball is slashed open while the fluid leaks out, in Bunuel and Dalí's *Andalusian Dog* (1928). Also, bodies vanish behind a pole (an old slapstick gag) in Richter's post-Dadaist spoof of *neue sachlichkeit* in *Ghosts Before Breakfast* (1928, substitution shots again); and substitution composites in René Clair's time-out-of-time *Paris Qui Dort* (1923).

But from prerevolutionary Russia came the very special case of Ladislav Starevich. As early as 1912, Starevich completes fully realized, stop-motion masterpieces with miniatures, insects as automata in brilliant clockwork. He reduces Feydeau farces to the size of a silk-lined pocket watch (*The Cameraman's Revenge*). Similarly, I should mention that trick advertising was a staple in many movie programs as early as 1912, particularly a live-action human being grafted on to a butterfly; or a cigarette ad where a man's nose changes into a chimpanzee and then into a baby<sup>21</sup>—all this nearly twenty years before Oskar Fischinger's stunning trick advertisements for the movies, with dancing, goose-stepping and skating cigarettes; or nuclear energy seemingly rewiring the television screen (1950).

Indeed, as the machinery expanded, the effects were not so much “more real,” as simply grander in scale. In the twenties, much larger movie lots in Los Angeles and Berlin required a special-effects division inside the studio itself, the formal beginning of a craft within a corporate industry. Handbooks of the 1920s describe the standardized routines, rather primitive at first, but then again, special effects are often a simple trick well dressed. Even as late as the twenties, the basic effects tool was still the human hand cranking the camera frame by frame, to insert ghosts, or to animate dolls.<sup>22</sup>

By the thirties, automated systems had replaced hand-cranking. However, on the screen, the results looked much the same. As I mentioned, Willis O'Brien's magisterial dinosaurs and apes were already vibrant by 1920, in early shorts. His work on *The Lost World* (1925) promised essentially everything

that *King Kong* delivered eight years later, with its eighteen-inch model apes turning into the fifty-foot Kong, along with a man in an ape suit for the final struggle atop the Empire State Building. Kong on his island is shot in blue light against a red light background; then his flora and fauna is composited in, particularly in his lair, copied from Dore's illustrations for Milton's *Paradise Lost*.<sup>23</sup> Indeed, *King Kong* still applies Victorian theatrical devices, as did much of early cinema.

In the end, until the era of digital effects begins in 1968, with *2001*, the evidence points more toward consistency than evolution of form. The essentials freeze, with minor enhancements by 1935, for another thirty years. Thus, handbooks since the twenties standardly repeat a few categories most of all,<sup>24</sup> as follows:

- *Special* effects provide shocks—the monsters, the tidal waves crashing through the town.
- *Hidden* effects, mattes in particular, “embellish or aid in the artistic conception of the picture,”<sup>25</sup> usually to save money and stay on the lot.
- *Scene changes* require effects—fade-ins, irises, dissolves.

Effects enhance point of view, through attachments on the lens that resemble keyholes, latticed windows, binoculars.

Effects deliver Expressionist or Impressionist distortions, with trick lenses, not unlike trick mirrors at amusement parks, used by director Abel Gance in the twenties, by hundreds of cinematographers before and since.

Basically, all these effects were possible *in-camera*, with very little postproduction. Even in the thirties, for those wonderfully cheesy weekly adventure serials (Buck Rogers, etc.), many effects still came out of the cameraman cranking slower or faster, to control the diaphragm of the lens. Or the camera was run in reverse: Winding the film backwards (reversing the belt on the take-up magazine) was a particularly ripe old trick. It allowed the cameraman to mask part of the frame, to add ghosts and metamorphosis. By rewinding, fadeouts could be timed to substitute one body for another, back to Méliès in 1895.

*Atmospheric* effects were made out of household remedies, miracles in candle wax. Tilt the camera and you have the actor walking up a building.<sup>26</sup> A typhoon can be a twist of cotton sprinkled with coal dust. Oatmeal can look convincing as snow or lava, depending on whether it is cooked or left as flakes.<sup>27</sup> Technical advice from the twenties is often not that different from the fifties: “Burning trestles are usually soft wood saturated with turpentine, which pro-

duces a black smoke that photographs well.” “In using miniatures on water ... take care that no bubbles form.” They will look “about the size of hogsheads compared to the model ship.”<sup>28</sup>

Atmospheric gimmicks of the thirties and forties were equally home-brewed, the water tanks and fog machines, the oil in water to keep the bubbles tiny enough when miniature submarines were sunk. This is Artifice come back as Victorian toy soldiers: little battleships that are still charming to see, because they have the psychotropic ironies of children playing in a bathtub, or the interiority of a dollhouse<sup>29</sup> (another standard prop). They also remind me of Ernie Kovacs cutting up cardboard for live TV in 1955, and propping it in front of the lens.

At the same time, the scale could be masterful. By 1937, John Ford’s *The Hurricane* destroyed a Polynesian village indoors, under roller-wave machines, and three-inch hoses, via winds from airplane motors.<sup>30</sup> In 1947, the Andes (or at least enough of them) were rebuilt in a ravine at Lone Pine, California. “To the camera it looks like the McCoy. But ... behind the scenes ... it is a blend of wood, plaster and ingenuity”<sup>31</sup>

## Compositing Time and Space

We expand the principle of compositing:

Special effects add layers in space (on the screen and inside the theater). They also add layers to time itself, through stop-motion, or morphing. Most of all, they mix animation with live action. For example, animation is the art of compositing frame by frame. Essentially all special effects are animation inserted into a live-action space, or time.

With this expanded definition, we return to 1920. A standard text at the time was Carl Lewis Gregory’s *Motion Picture Photography*.<sup>32</sup> Gregory begins by setting up two categories of effects:

First, some effects are meant to be “*fake*’ to deceive the eye.” These he calls special effects. And second, certain effects are “used to embellish or aid in the artistic conception of the picture”<sup>33</sup> (fade-ins, irises, trick attachments for key-holes, latticed windows, binoculars).

In other words, some tricks are supposed to be noticed; others are supposed to stay hidden. And thirdly, some are simply part of how scenes are assembled so they follow each other; that is, they are aesthetic cues, like turning a page, or the actor walking forward to do a monologue.

Thus, in Hollywood for generations, that boiled down to three kinds of effect: first a *special effect*, second a *hidden effect*, and third a *scene change*.

As of 1920, *scene changes* were classified in the trade as “trick photography.” For example, fade-ins were “tricks,” along with irises, simply because they required special cranking by the cameraman, to control the diaphragm of the lens. Point of view was a trick as well. Trick attachments were added to the lens for keyholes. Openings cut out of brass could resemble a latticed window, or binoculars.

Winding the film backwards, however, still remained the heart of both hidden and special effects (reversing the belt on the take-up magazine). This allowed the cameraman to mask part of the frame, to add ghosts and metamorphosis. By rewinding, fade-outs could be timed so that one body would replace another. Time and space were composited by controlling the speed and direction of the camera: cranking. This was the sum of it, as of 1920, timing and cranking.

Leftovers from Méliès still worked, like tilting the camera to make someone walk up a building, making the horizontal look vertical.<sup>34</sup> And typhoons were often no more than a twist of cotton and coal dust, pushed along by a gofer. By the late teens, bipack systems for still and moving mattes were already in wide use, leading to the Dunning-Pomeroy “self-matting”<sup>35</sup> technique, refined later in *King Kong*.<sup>36</sup> Optical printing took over by the forties, then by the late fifties, color separation, as in television: chroma key.

By the late nineties, all that was going the way of the dinosaurs. In 2002, I visited one of the last effects houses using optical printing. The man in charge of the optical printer had a paper box for a chair, and was grouching. Upstairs, the man in charge of Flame, the new \$250,000 digital matting system (discount price), had all the chairs he needed. On Flame, he made places and faces morph as easily as if they were Baroque ceiling painting. The line between the composites (the Artifice) is disappearing throughout the arts and our visual culture. We are indeed in the same place at once, and no place in particular. We finally leave the Victorian stage, and go back to the occult laboratory of 1650, the cabinet of curiosities as standard grammar in all cinema.

For a century now, special effects has turned into hidden effects, and then into film grammar. Then crafts technology simplified the method. As lap dissolves became much more common, cameras with back-winding devices made the superimposed layers look cleaner. Negative to positive film (neg/pos) improved dissolves by simply dissolving “the exposed ‘negative’ part of the emulsion.”<sup>37</sup> Tricks with mirrors improved to “fifty-five mirrors,” for ghost effects

and for axial lighting (to add captions). Mirrored sticks could extend or compress the picture, or cross fade.<sup>38</sup>

After 1945, in the era of noir aesthetic, film grammar relied more on trick photography as film grammar, toward *expressive effects* like those pioneered by German cinematographers in the twenties. That meant not only more dissolves, but deeper focus, sound overlapping, faster film, more gray tones. But improved paraphernalia inside the soundstage did not always improve what made the effect special. For example, Willis O'Brien's work for *Mighty Joe Young* (1948) looks only a trifle smoother than *King Kong*. And in many ways, the awkwardness of Kong's lumbering movements enrich his character, his pathos. Also, O'Brien's student Ray Harryhausen may have added new monsters and new gestures in the fifties, but he often needed only slight technical changes. Harryhausen's personal signature—the unearthly dead thing suddenly jumping to life was what made his work unique. The stop-motion effect itself took on relative stability after 1925.

Even if one studies the improved techniques by Harryhausen for *Clash of the Titans* (1981),<sup>39</sup> late in his career, we are still inside the O'Brien tradition. Harryhausen's Medusa radiates an unearthly sense of pain, because she is trapped infernally in her body, and only her eyes penetrate outward—more expressive in some ways than *King Kong*, or is it? Color and mass have been added, as well as radio controls (called Dynamation) for much more complicated movement. But the utter breakthrough came with *Star Wars*—based, of course, on groundbreaking innovations with *2001* ten years earlier.

However, did this breakthrough remove some of the irony? The Artifice in Harryhausen's stop-motion adds a kabuki presence; the Medusa breathes her own unique air. She seems poised to steal our air; she's unearthly. By contrast, Lucas's stop-motion added an *immersive presence* to the screen that audiences felt was very different; how well I remember the hushed awe with *Star Wars* in 1977, the suburban charm of the gizmos and automata and weathered spaceships.

But Lucas's shift to softer video editing after 2000 may have erased some of the *expressive effect* of the early *Star Wars*, the boyish ironies. In 1977, Luke's working-class suburban home in deep space looked like its refrigerator needed defrosting. The hardware was dinged, the extraterrestrials were shopping-mall parodies of urban scum. That subtle impact—Luke's fragility—had a massive effect on the audience, what I call the American school of high suburban cinema, a hero of a thousand faces, but with lingering teenaged acne, as if Luke's voice were still changing while he played at soldiers against Darth Vader. Luke

and Han Solo's equipment looked as if it had been tooled in a garage, something untested and self-consciously artificial. The engine seemed rebuilt by teenagers, but could make warp speed, like those dingbat spaceships in thirties movie serials that Lucas liked so much.

There is a trade-off when one improvement erases the ironies, even the Artifice of another. One nuance is added and another is lost. Today, when we re-run Harryhausen's or O'Brien's work, it looks ardently handmade. We admire their balletic skill. Audiences sense that the digital is missing. The effects look industrial, die cut. That adds a nuance to our visual pleasure. The movement seems slower, more stylized, the surfaces more artificial.<sup>40</sup> When Coppola decided to include only effects that were not digital for *Bram Stoker's Dracula* (1992), he was making a statement about the late Gothic novel of 1897, comparing it to the costumed look of special effects before the computer (and their lingering debt to Victorian shockers onstage).

Pre-digital effects look quaint now, like the fringed roofline of a twenties office building. Therefore, *King Kong* is not received as it was in 1933; it fits with the decors of the Empire State Building as we now remember it. This is more than simply nostalgia; it is another edge added to the story itself.

## Immersion

Movie special effects also generate a unique relationship to the theater space itself. They tend to be more immersive. For example, with computerized effects, the foreground of the movie practically disappears. The seat becomes a parachute into the middle of the action. To market this experience, stadium seating has become standard in all new American movie theaters—a launching pad into a cinematic space as comfy as a couch at home. The viewers are far more isolated from each other than in Cinerama during the fifties. The roar of the public is shut out. The seat becomes a pod dropped behind enemy lines. The hatch opens. Suddenly the random fire of Omaha Beach cuts, the viewer at the waist in *Saving Private Ryan*.

As if inside a labyrinth, we enjoy being overwhelmed by stadium seating, to be lost inside the foreground. The narrative frame of special effects have absorbed the theater seat as well as the air in front of the screen, and the immersive digital sounds behind you. The viewer is treated as an extra on set. The movie unfolds around the viewer like a pop-up map.

Of course, one senses this immersion already in the scenography of silent German cinema. By the mid-twenties, the scale of German art direction, costuming, and innovative use of mattes and lighting set a new standard. In New York, animated-effects films at Fleischer Studios—after 1919, but more after 1925—already satirize this standard. Fleischer invents breath-taking slapsticks for disaster movies that were not even made yet (again, Koko's Earth Control, 1928). Indeed, practically every animator from Emile Cohl onward, from 1899 forward specialized in effects films, including the young Disney, as I mentioned earlier—particularly the experimental effects films of Oskar Fischinger. In the late thirties, Fischinger even tried working for Disney, but only for a short while, until both men realized their mutual error.

## Visiting Ourselves

Hollywood turned the lavish fake into glamour, in articles about “faking” the establishing shot on “floating studios,” yachts in Athens, or Hawaii, with refrigerated systems down below.<sup>41</sup> Charles Clarke specialized in “clouds made to order,” transparencies over a “bald” sky, clouds to fit the mood, from “bright fleecy” to “sombre threatening.”<sup>42</sup> And explosions of all sorts, from black-and-white flash powders in *For Whom the Bell Tolls* (1943),<sup>43</sup> to electrically generated explosives coming today.

By the mid-nineties, these fakes took on a fetishistic transcendental quality; until finally the “making of” special effects became more important on DVDs than the movie itself. We learn how the character Mystique was invented hour by hour for *X-Men*. An obsession with prosthetics, with the collaging of the body into an automaton, and then into a mutant, makes the actor a composite.<sup>44</sup> Mystique's yellow eyes, like Harryhausen's Medusa, and her blue amphibious but eroticized flesh deeply resemble the costuming that Inigo Jones designed for masques in 1610. The Electronic Baroque rediscovers the prosthetics of the Baroque in 1610, while the rest of Mystique's body remains industrial, like a new industrial plastic.

Thus, in the logic of the story and the production methods, her body visits itself as a tourist—as an erogenous scripted space, but also as a body without organs, almost antiseptic, like a beautiful woman cheerfully imprisoned inside a corset. For Mystique, “seventeen large prosthetics and nearly one hundred smaller ones were applied to the actress (Rebecca Romijn).”<sup>45</sup> They were stretched over her muscular frame to absorb “the movement of skin under-

neath, so that there would be no wrinkles.” One piece went from her knees to her lower back, so the actress could execute kicks over her head “without looking wrong.” Thus, she became an ass-kicking “blue skinned mutant shape changer,”<sup>46</sup> covered in reusable silicon appliances.

We come so much closer to the parodies of the prosthetic face-lift in the movie *Brazil* (1984), where facial wrinkles were flattened away by Saran wrap. If special effects predict what is coming, our bodies may turn into a prosthetic host for things injected by media. Special-effects immersion is being miniaturized as well as monumentalized. The alien (or mutant) body becomes a movie set wrapped in prosthetics. With the making of the *X-Men* series, and a dozen f/x movies like it each year, the body becomes a labyrinth of prosthetics—a composite that allows for cheerful imprisonment inside a civilization dominated by special effects.

## 12. 2001 to 2001: Immersion into Deep Space. Baroque Reincarnation

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On December 29, 1965, the Electronic Baroque—as cinema—was launched during the first day of shooting for *2001: A Space Odyssey*. Inside a “150 x 50 x 20 foot hole,”<sup>1</sup> the screenwriter Arthur C. Clarke was awed by Baroque miniatures, “neat little electric-powered excavators, bulldozers [that] could really work on the Moon!”<sup>2</sup> He and director Kubrick had been struggling to envision the key image for the film, the modernist shape as a living organism.<sup>3</sup> They agreed upon a “jet-black” slab so easily smudged that only a glove on screen could touch it. It resisted fingerprints, like evolution as a laser device (more as a transmitter for evolution).<sup>4</sup> Its surface was blank, very much in the spirit of Kubrick’s grim theories on the occult. It looked godlike because it did not care at all.

Clarke and Kubrick were also envisioning a bridge between late Modernism and the Electronic Baroque. They make a connection that reappears in worshipful copies for decades afterward, the monolith left by aliens, in stargates and mandalas. But even more crucial, Kubrick also imagined the ultimate “all-embracing” view—the universe as blank panorama. The universe was Modernist; but inside, like DNA monads, it was densely packed with Baroque labyrinths. For example, on the blank Modernist spacecraft, a labyrinth was coiled inside HAL’s anxious brain. But more “telling,” in the grand “Stargate” finale near Modernist Jupiter, a psychic labyrinth unfolds<sup>5</sup>—a psychedelic fifteen-minute slit-scan ride that ushered in Hollywood digital effects.<sup>6</sup>

But in addition to launching the cinematic Electronic Baroque, Kubrick was also delivering a challenge to Hollywood storytelling: the blank as space epic, as in blank space and blank expressions. HAL was the only dramatic character on board—a neurotic database trapped with astronauts (career professionals) about as caring as night watchmen at a kennel. That left no room for

drama beyond cabin fever; everyone was fighting of boredom. In the screenplay, Clarke even tried to add dramatic touches to HAL. For Clarke's generation of sci-fi writers, stories about thoughtful robots were a genre, as in Asimov's *Foundation* series (1942–83). But very little dramatic intrusion seemed possible inside *2001*, not even a few minutes on HAL's motivation, HAL as Hamlet,<sup>7</sup> or HAL's dreams of an electronic Eden. Clarke discovered that any monologue "would have slowed things down too much."<sup>8</sup> While the movie ran over two hours, with long waltzes about machines docking in space, two minutes of dramatic back story might have marred Kubrick's statement.<sup>9</sup>

Every scene had to match the jet-black surface of the monolith, one blank carefully inserted inside another. And perhaps the deepest, most monolithic of these was the theater itself. Outer space looks pure black, particularly during the docking sequence; it leaves no edge on the screen. Thus, the audience is immersed into nothing at all, into a blind labyrinth, the POV of an asteroid. And as I often remind students, we all know that outer space is also air-conditioned, and can support a Diet Coke. Kubrick delivered a complete immersion that Wagner<sup>10</sup> might have wished for, an opera about blankness as control, a Modernism that was both soothing and ruthless.

I remember seeing *2001* when it opened in 1968. I found the blankness inside the theater deeply moving. I caught a whiff of marijuana from the first row. Neighborhood stone freaks, perhaps retired stockbrokers today, were watching the movie upside down while lying on the floor. In rereleases over the years, the digital surround sound gets even grander. The stadium seating perches you more vividly on an asteroid. And yet, the mood of *2001* has shifted for me. I see the loneliness of Kubrick's Electronic Baroque much more. It is spectacle as emptied as anything Beckett imagined, and just as comforting in its emptiness.

Its darkness remains a challenge to all special-effects cinema. But the challenge has not really been met by Hollywood film. And I no longer find it elegiac, as I did in 1968. Increasingly, its emptiness reminds me of the city and the crowd in late-nineteenth-century urban literature, more like Kafka or Musil floating in the North Sea. It is densely packed with the thinnest, most uncarving vapor imaginable. The machine erases nature entirely, like the last breath of Modernism in cinema. Then you are vacuumed through the grand finale, to meet the Star Child, another blank thing. But it no longer feels like a sardonic Taoist statement about letting go. It feels more like a fascist reminder. The alienation is heartbreaking, like studying your imminent death from a hospital bed: no movement is possible anymore, only immersion. You are trapped

in light speed. Fish don't know they're wet; they die assuming that they are already outside their own bodies.

But this week in March 2003, Kubrick's immersive blank also feels weirdly nostalgic, like the architectural "voids"<sup>11</sup> inserted throughout Daniel Libeskind's Jewish Museum in Berlin. Those voids stand in for generations of Jews who were never born due to the Holocaust. They position you on precipices that never were built. This week, I sense my reaction to 2001 changing, since the next war is probably days away. But mostly, it has changed because so many people close to me have died over the years. If a civilization were trying to die off, and its story were told as epic cinema—as 2001—what blank plot points and voids would be needed? But I refuse to accept this sort of future as grim. There is nothing grisly about it. Let Modernism burn itself off on some distant moon, along with postmodernism. Give them both the Viking funeral they deserve, so we can get on with what is left.

Oddly enough, I am suddenly too hopeful for Kubrick's entropic message; or should I say too caffeinated by this crisis. The nightmare that I feared for the United States has arrived. And of course, it does not look at all like 2001. It looks more like a militarized computer work station, like HAL and Dave enjoying a chess break together, while the ship dissolves on its way to Jupiter. In that sense, 2001 is cybernetic and ergonomic; a panorama filled with Baroque effects. The blank of late Modernism gives birth to the Electronic Baroque on film, as it did for Disneyland and Las Vegas in 1995. Nearly forty years later, 2001 remains the classic document about this transition.

That is not to say that the remnants of the original Baroque did not survive marginally into 1955, outside of Modernist abstractions, as circuses, magic acts, on merry-go-rounds, in puppetry and animation. And these, in turn, were rediscovered by way of Disneyland and Vegas. The older Baroque carnival and high-octane Baroque out of Modernism increasingly grow into each other, even in Kubrick films after 2001.

We see the mix very clearly as stagy proto-punk in *A Clockwork Orange*, then variously in *Barry Lyndon*, *The Shining*, and *Eyes Wide Shut*. Baroque labyrinths fill his blank panorama more thoroughly with almost every film. Finally, if Kubrick had lived longer, or trusted his instincts more, he might have left a final reply to 2001: a movie starring HAL as a walking machine, his uneasy, more Baroque answer to 2001. After all, by 2001, he had spent nearly thirty years preparing *AI*. His version would have starred an eighteenth-century automaton essentially, an even more precise identity with Baroque special effects.<sup>12</sup> Or should I say with the Electronic Baroque?

But I am not convinced that Kubrick was on the right track. He wanted his child star to be a “real robot,” as close to an actual machine as possible, to give the Star Child a body. And while a machine with plastic skin, shot in real time, would have brought me to the theater—with due respect to his genius, Kubrick’s premise sounds flat to me. By 2000, even by 1990, the robot had evolved far beyond the need for a machine-like body. What’s more, a “thinking” and “emotional” HAL still remains pure fantasy more than science; also still far closer to the bodiless HAL in 2001.<sup>13</sup> Nothing like a cyborg either is scientifically due for decades; and probably when it arrives, it will be so miniaturized, we might accidentally swallow it. As early as 1990, a Pentagon official predicted robots as specks of dust,<sup>14</sup> like cyber pollen.

And by 2003, this robotized dust had evolved very clearly, even beyond HAL. It transmogrified into global media. This HAL can tell the astronauts where to get off. It can invent a president, even invent or dis-invent wars. Meanwhile, quite in the open, global media as HAL crosses the continents like a vapor, or a desert sirocco more than a solid thing. This vapor takes flight mostly through branding and collective erasures (the robot that helps us forget our inner life, except as shopper’s impulse). It foments a cheerful and well-dressed blindness, as in the following from Paul de Man: “Fashion is like the ashes left behind by uniquely shaped flames of the fire, the trace alone revealing that a fire took place.”<sup>15</sup> In other words, the new HAL stands in for media blur, presumably (to follow poststructural logic), the political blur around us, as old standards for diplomacy and balance of power dissolve.

Presumably, the well-trained postmodernist can read these signs. They are as adept as Baroque scientists. They use poststructural logic like surgeons. Of course, I am vastly oversimplifying. That is one popularized misunderstanding of French poststructural theory, 1968–1985. At its bluntest, this misconstruction can be reduced like a jingle: The codes of late capitalism are in a state of blur, but those who are adept can see through the blur if they stay alert. However, our condition in the year 2001 does work that way. We face something quite the reverse. This year certainly, *we* are the blur, while those dissolving codes, protected by global media, are doing *fine*.

In fact, this year (and perhaps every year) special effects rely on blur as a plot point, more as a dissolve. And a well-timed dissolve—the instant of blur—can be precision-timed like clockwork. The dissolve is simply another tool, part of the instrumentality of power. Of course, well-run clocks often tell bad time. The corporations who govern media are too greedy to plan very far ahead (or care about the future, except as stock futures). Still as of 2003, “they” (global

media) can manipulate the moment; that is, they can play *us* like a radio. But clearly they have made a terrible bet by supporting the Bush plan. That will undoubtedly “implode” soon enough. However, why do I get the feeling that when it implodes, we alone will have to clean up the mess? Or worse still, live through it for another twenty years.

Thus, for our moment, Kubrick’s interest in AI robots looks “too mid-seventies,” not very helpful for 2001 or afterward. And after 1980, while Kubrick was testing robots as actors, digital systems evolved HAL into a powerhouse, into a vapor. Perhaps vapor is the wrong image here, not good enough as an alternative to the robot. Imagine instead a collective noise, a monolith humming like a whale for miles around. The sound would be alive; like mumbling bacteria who clean an oven. Its job would be to help us forget from minute to minute. It lovingly misrepresents the facts for us, like a mother getting her child ready for school. It dresses us for the wrong weather reports.

## Screen Treatment

Or better still as movie special effects, the 2003 HAL could be a fungus growing on a news teleprompter. Tiny robots the size of bacteria swarm over any face on camera. They help the face read without thinking, even read bad jokes without laughing. The pores on the face do not realize that it has been invaded. On second thought, this would make a lousy movie. Fungi look boring. They are too weak-kneed for big-budget movies, not enough wow. Perhaps Hollywood cinema cannot visualize robotic signals this faint, not without blowing up a country or a city.

In blockbuster films of the nineties, HAL is often an evil double. First humans themselves become HAL, after getting sucked dry by parasitical aliens. Then it turns out that the aliens are HALs already. Meanwhile no HAL has an inner life, much less a sense of international law. Nor do HALs collect enough memory for an unconscious. Perhaps that is why they keep losing one Darwinian battle after another. Their genes must be a weak soup. Anyway, the alien HALs insert memories as boring as boiled turnips into the human HALs, in movies like *Dark City* or *Johnny Mnemonic*. And in *The Matrix*, they leave nothing for the ego to hold on to altogether. The aliens in *The Matrix* leave Neo three bad choices: 1. be a machine in the office; 2. escape to a bombed-out nothing; 3. become a machine in the engine room. No psychiatrist can help you here. You cannot even dream of electric sheep.

We begin to get the drift of where the Electronic Baroque is going. Let me review, then try another HAL scenario: The Electronic Baroque is a horizontalized system of global media that lives inside the remains of national politics and urban culture. It lives inside the residue left by the decline of our public sector. That is why it feels to us like a vapor, like public space turned into data—and often unreliable data at that. Perhaps in that spirit, Kubrick’s AI/HAL might be updated as white noise—the hum of media promotion. It is the vapor of shopping turned into a military and political tool. Then through elaborate staging on film and in themed environments, this vapor operates as scripted space. It fills the vacuum provided by Modernist design after 1955: blanks in cities, Modernist buildings, transistorized fantasies, in media, highspeed travel, TV screens to computer monitors, telematic (telephone) space. Thus 2001 remains much closer to 2001 than *AI* could ever be.

## Warp Speed

But nostalgia and technology have a way of moving forward by walking backward, like Nietzsche’s image of history as a crab. After 1968, we steadily witness the film industry filling this void of Modernist space with Baroque special effects. Clearly the benchmarks were 1977 when *Star Wars* reshaped the marketing of large films, and accelerated the process toward computer graphics in live action (the new perspective awry):

1977—*Star Wars*, *Close Encounters of the Third Kind* and *Alien* mark territories to come.

1982–1986—*Blade Runner* ushers in cyberpunk dystopias, the Pacific Rim as the death of the nation-state. At the same time, MTV, cable, and VHS restructure movie entertainment. Spielberg and Lucas as leaders of the American School of High Suburban Cinema (suburbia as a movie set; the first nostalgic wave of Gothic revival for the wartime American inner city, circa 1942).

1989–1999—computer assisted and generated effects take over in Hollywood, particularly after war simulation software is released to the private sector following the demise of the Cold War. Gothams and Dark Cities.

1996—the victory of CGI (computer graphics imaging) in Hollywood cinema parallels the great boom of the nineties. Production methods standardized.

2001—The Beginning of the “Thirty Years’ War.” The joys of surveillance become a national obsession, from reality TV to web pornography to homeland

rule. Meanwhile, digital special effects—HAL—leave the computer monitor and the movie screen, to blend much more (even infinitely more) into the nanospheres of everyday life.

## Hollywood Secrets

Hollywood *f/x* have their charm. They are jumbo-sized hoaxes. They are unabashed. They tell you how much fun it is to cheat. They promise more than your money's worth, every dollar on the screen. They cruise you in their stretch limousine. They know that melodrama looks like a gag. Then they claim that size is everything. So every year they stretch even more, more horizontal, more "cineramic" (wider, more immersive). They are like gangsters who wear the entire store. When it comes to how I dress, they tell you, I like when the suit wears the man.

Hollywood *f/x* is so playfully lopsided, it reveals secrets about the global economy, particularly about production methods. It outsources continually, shows no allegiance to any country, will fake anything in postproduction. It is indeed very proudly a gas circling the earth. Last night, the Bush administration began their war against Iraq. Suddenly the blatancy of special effects goes too far. All at once, "they" say that they deserve everything in the store.

But through the nineties at any rate, Hollywood *fix* turned global investment into a narrative thrill. It showed us how global media work like a gas to spread amnesia. After 1977 (*Star Wars*) it delivered shipwrecks and nightmare on a scale unknown before, not since the seventeenth century surely. And it delivered these in order to reassure us, like Pozzo's Jesuit Baroque ceilings in the seventeenth century.

By 2003, we learned that the political message of the Electronic Baroque has taken a massive shift—away from entrepreneurial and democratic models. Now it teaches you to love your place in the hierarchy. Be a loyal samurai like Han Solo: save the princess, save the president, save the feudal rulers against the nasty Nazi types. Of course, loyalty first has been standard fare in Hollywood movies since the McCarthy era, when stories about New Deal master planning as mass action disappeared.

This conservative drift was already predicted, with naked irony, in blockbuster action films about warlords and gangster magi. These stories advised loyalty first, and democracy with a medieval feudal twist. It was a message eccentric enough to take you to a chiropractor, all these cyber revolutions in

feudal settings; cowboys and gangsters in space, in a CG wilderness without codes. The aliens take over with their advanced software and precision bombing. Their intentions remains inscrutable, but obviously it is a land grab. They offer comic book versions of Valhalla as Gotham and Metropolis;<sup>16</sup> or Tolkien's eccentric conservatism about Middle Earth as a neo-feudal democracy filled with tiny people.<sup>17</sup>

*Neo-Feudalism*: the traces of seigneurial authority; a decayed or camouflaged warlord system; today, also an influence on cultural politics, special effects, media. And a symptom of the horizontal political process, as the vertical nations nation-state declines.

But neo-feudal terrorism is only half the message in action films. The other half lies in something from 2001, in panoramic (Modernist) deep space. Finally this deep space invaded the theater itself, through surround sound, panoramic screens and stadium seating. Instead of Baroque scripted space under a dome, the movie theater invents blank space that is panoramic to an extreme, again as ushered in by 2001.

Of course, inside this panorama, there are Baroque labyrinths. These borrow from two sources primarily: fifties film noir (playful Baroque paranoia) and Baroque theme-park effects (animatronics, stop-motion tricks with mirrors, the dissolving foreground, as in rides). I list these contradictory layers as a reminder to myself to never oversimplify categories. Film and architecture should not be conveniently lumped together. That is why the history of special effects requires a second volume, on psychologically driven illusion: the Gothic and noir from 1620 to the present. There are hundreds of films not included in this volume. And there will be dozens more released by the time this book gets to you the reader. Better to simply play with your memory of dark cities and fifth elements and islands of lost children, and Indiana Jones's crusades, and beetlejuice theatricals; and video-art and art-house ironies that use special effects, from *La Jetée* to Bruce Connor to cremasters and Rybczynski films, and so on, from Carolyn Leaf films and Alexeieff pin animation to Brazilian cartoons, to Iranian special effects.

In this chapter, we use these imagos as links to global economic fantasies, about oversized special effects on the "big" screen today. Most of all, movies occupy a unique position in the Electronic Baroque, different than architecture. After 1977, as we all know, movies became the global brand for tourism worldwide. But even more telling, movies revealed how the media corporation operates. Hollywood special effects are filled with traces—clues—left by production methods. In fact, often the story implies production: aliens as media

making war; frequent paranoid details about feedback systems; stories about the gruesome backbiting in warlord capitalism. By contrast, architecture after 1980 used special effects more to camouflage the intentions of the corporation. But for movie special effects, there is no such thing as bad publicity.

Movies also exaggerate—reveal—the uneasy alliances in global capitalism, simply to keep the epic stories fast and furious. Thus, panoramic overkill, as industrial anxiety, is filled with Baroque cockroaches and alien trickery, with creepy labyrinths. (Spielberg was clearly one of the first American f/x directors to build on this contrast; also Lucas, Ridley Scott, Terry Gilliam, Tim Burton, a long list.) Panoramas are spread thin, beyond the reach of governments themselves. Thus, to stay in place, governments have to merge with Baroque media (computerized manipulation and cable news).

This uneasy alliance became clear by the late seventies, at least in media. In 1979, through data companies like Bunker Ramo, the banking industry was digitized. This came under the thrall of emerging neoliberal inflation—the anomalies of world trade. At the same time, video games about neoliberal chaos were the rage after *Star Wars*. In short, once the banks were online, a new political economy was inevitable. The alliance that resulted—between anti-government world capital and the federal government—has proven very uneasy by 2003, and violent—or at least destabilizing. Digital super media, like merchant princes after 1550, cut deals that undercut the state. Then, cable news media began a crusade against constitutional government itself. Of course, this is only 2003.

These devil's bargains clearly parallel deals made in 1650, that barely salvaged the old dynasties in Europe. But 350 year-old comparisons can go only so far. Differences between 1650 and 2003 reveal as much as the similarities. Unlike 1650, the nation-state today is not languishing in late medieval decay; not yet. Instead, it suffers from late industrial decay. Clearly the conservatives who dominate this year no longer trust the vertical power of the national government except to protect against terrorism (much of it invented); or bring anti-abortion morality back to the courts (that is their pitch, at any rate).

But consider how Hollywood f/x have responded to this conservative program, about white male fantasy taking a rigid stand. Instead of big government, action f/x after *Star Wars* show us a bright future dominated by yeoman feudalism as democracy. What a joke on us (a good time to pour a glass of wine and toast the ridiculous). It turns out that oligarchic feudalism is being reimaged as egalitarian. But this feudalism (at its extreme in Bosnia, Africa, the Middle East, South America, on e-commerce, talk radio, cable news)

is far stranger than not egalitarian; it is utterly chaotic, a Hobbesian war of all against all. It really is feudal, as feudalism actually was in 1100—filled with warlords bashing each other to pieces, haunted by fundamentalist lunatics, one crusade cannibalizing another.

We watch today's special-effects version of world news: "around the world in eighty seconds," one network announces. Then we wonder: what deals is media cutting with big government? Also, what on earth will electronic feudalism look like when the dust settles? The last version of the neo-feudal—by way of Versailles, the Counter-Reformation, the sadism at the Escorial during the Golden Age of Spain—led to bizarre and infamous cruelties. What will the next lapse back into Baroque fundamentalist culture bring?

Let us rummage through Hollywood *f/x* after 2001 (1968), search for more clues. Perhaps we can imagine an alternative script. We start with a quote from one of the heroes from *f/x* designers in 1965–1970, from Buckminster Fuller's *Operating Manual for Spaceship Earth*:<sup>18</sup>

Our space vehicle is similar to a human child. It is an increasing aggregate of psychical and metaphysical processes in contradistinction to a withering decomposing corpse.

Things to Come: In 1970, Douglas Trumbull, the effects supervisor for 2001, begins to imagine what films he will direct, now that offers are pouring in. He is thinking of *Saturation 70: An Ecological Horror Fantasy*, "about a five-year-old boy following around a group of aliens, who are busy ... gathering samples of everything that represents western civilization."<sup>19</sup> He wants it to be an underground cult film, like an Oingo-Boingo picaresque, with Vietcong encounters in the supermarket, flying trucks, fifty-lane highways and planet-wide garbage dumps. He plans to composite "LA skidrow with a Manhattan skyline with an Eiffel Tower added."<sup>20</sup> To give the movie that "sense of wonder," he prefers visual overload "in and around the central action," to encourage reentries and second viewing. Digitized scripted spaces have found an early champion. The space will be huge, panoramic, but stocked with Baroque oddities.

Trumbull's also directed the visually precocious film *Silent Running* (1972), a transition from the robot movie of the fifties toward the look of *Star Wars*. To achieve that look, he sharpened the motion-capture, and enhanced the miniature cameras, but still with computer-assisted composites, not computer generated. Also, like many directors after him, he consulted with the war industry. His robot reflected designs provided by NASA. He leased a mothballed air-

craft carrier as his spaceship. Then he drew on sixties Modernism, quoted from Buckminster Fuller: The farming colony on Mars was shot inside a “geodesic-domed botanical garden in Missouri.”<sup>21</sup>

1975: A good year for Pyrotechnics. For the final shootout in *The Wild Bunch*, over ninety thousand rounds of ammunition were used, more “than the entire Mexican Revolution in 1913”<sup>22</sup>—to convert a 1909 prop machine gun into a special effect. In addition, thousands of “bullet hits” are ignited on walls and on actors (who wore sacs, or squibs, carrying two or three teaspoons of artificial blood, and in later Peckinpah films, even pieces of raw meat).<sup>23</sup>

To blow up Pearl Harbor in *Tora! Tora! Tora!*, nearly ninety-five miles of wire set off about 120,000 gallons of gasoline and diesel oil and 2,500 pounds of explosives.<sup>24</sup> In *Kelly’s Heroes*, an explosion was composited with a trampoline jump fourteen feet in the air, to get a corpse to fly. In Krakatoa, potassium permanganate was poured over a special black powder<sup>25</sup> inside plaster of paris, to get a miniature volcano to erupt. The miniature ships caught in the blast were filmed in white water with multi-jet manifolds of compressed air, inside a diffusion filter for volcanic haze.<sup>26</sup>

Within fifteen years, the pyrotechnic options multiply tenfold, or so it seemed, particularly the naphthalene fireball effects of liquid mortar, for indoor explosions. Gallons of “vaporized fuel” (can) just float off in the sky.<sup>27</sup> It made a handsome tail for a terrorist bombing. The glow of individual gunfire also improved, through gas jets or strobes. And “off the shelf weapons” like Thompson submachine guns and Kalashnikovs were converted into blasters for *Aliens* (1986) and *Judge Dredd* (1995). Talk about parallels! These special effects were also popular in actual feudal combat against the “developing” world.

In 1995, I visited a display at Siggraph for *Judge Dredd*, then the movie state-of-the-art for guns and compositing. Directly beside it was a display by Evans and Sutherland,<sup>28</sup> where actual warfare was being simulated, on screens vaguely similar to those used in the Gulf War. The cheery hostess explained: “We’re deeply involved in the Balkans.” Then, catching my surprised look, she added “in a humanitarian way.” During the nineties, movies often reenacted the firepower used by warlords in Asia and South America—the training ground for terrorism to come. Rambo “rides” with mujahideen in Afghanistan during the Soviet occupation.

1981: Director Ridley Scott is “constantly waving” a copy of Edward Hopper’s *Nighthawks* (1942) “under the noses of the production team [for] *Blade Runner*”<sup>29</sup>: In this famous “noir” painting, we see a coffee shop across the street in Greenwich Village. Late-night diners are mulling over a gloomy cup of coffee.

Harsh fluorescent lights compete with the blackness of wartime New York. Indeed, Scott wanted forty years into the future forty years ago.<sup>30</sup> His team finally translated Hopper into the “Hades landscape,” overhead shot of the city. The factories are erupting like sunspots. Even suburbs have become slums, “industrial wasteland gone berserk.”<sup>31</sup> In the storyboard, a forties Deckard waits gloomily for dinner, at what I call the Farmers Market from Hell, under the blind gaze of a “blimp,”<sup>32</sup> circa 1942.

Eventually this atmosphere all but swallows the screenplay. As I explained in *The History of Forgetting*,<sup>33</sup> the art direction for the *Blade Runner* city operates in four horizontal layers. They remember, then forget New York by way of *Metropolis*, and Hogarth’s London, thirties photos of New York, French Heavy Metal. Then to design accessories for their city, Scott hired automotive designer Syd Mead, first to fashion the Spinner, “cars that actually fly,”<sup>34</sup> then for inspirational sketches<sup>35</sup> about New York “overkill.”<sup>36</sup>

Like many effects masters since 1980, Mead works across industries, from computer games to entertainment architecture to war toys. He began essentially as a “trans” designer, imagineering cars of the future, for US Steel and Ford: “a car is more than a shape in motion.” Finally in 1979, Hollywood f/x called: He designed the Voyager space craft for the movie *Star Trek*, as well as a book, *Sentinel*, that Scott noticed—for a London-based rock ‘n’ roll publisher. Thereafter Syd Mead’s adaptability is remarkable. He runs the gamut from cinematic to architectural special effects, very much like the early Imagines for Disney, like Claude Coates and even Marc Davis. Certainly for *Blade Runner*, Mead had no difficulty adapting his “clean realistic vision”<sup>37</sup> and “Flash Gordon”<sup>38</sup> Modernist tendencies to Scott’s sense of the city as Gothic ruin.

Nor did he have much trouble designing an “ecotecture” for Kobe Harbor Fantasy,<sup>39</sup> or Intransportation vehicles for Spacequest: A Future Casino, for “the largest rear-projection CGI synchronized scenario ever attempted.” After *Blade Runner*, he helped to visualize a ride for a Celebrity Pavilion, “an electrically enhanced walking tour.” He designed the restaurant pylon for Universal Studio Tours. And a fantasy boutique arcade in Seoul; and the S.Q.U.I.D. headgear for Kathryn Bigelow’s movie *Strange Days*—“a spooky kind of prop to help visualize the bizarre tale of electronic ‘snuffing,’ mayhem and general dire foreboding for the future.” And cyberpunk Lotek in *Johnny Mnemonic*; as well as creepy crawlers for the video game *Bugs*, about “Los Angeles once again [as] a dysfunctional hell hole.”

I remember back in 1994 asking another master effects designer—Alan Yamashita, who worked on films, rides, games—what in his mind was the ulti-

mate special effect. Yamashita paused and said: Rembrandt's *Night Watch*, because it was life-sized, but halfway up the wall, and floated like a hologram in its own atmosphere. These designers clarify how special effects on the screen relate to architecture, industrial design, painting.

But what do these links tell about global power, from casinos to war to action movies to urban simulation? For example in *Blade Runner*, the Sentinel Kiosk was added to the lobby of Deckard's apartment block (modeled on Frank Lloyd Wright's Ennis Brown House [1924]).<sup>40</sup> This kiosk looks like a prototype for Homeland Security Liberty Watches in 2003: an optical scanner with even more security devices inside the lobby. "Ridley Scott uses these inanimate objects to make a statement about the social fabric of the future, where anti-crime devices such as this command no more notice than a turnstile today."<sup>41</sup>

There is our clue: Syd Mead's job was to normalize the uneasy alliance, make the threat of global power look perversely ordinary. He provided "social fabric" as special effects, from sexy cyber cars to Deckard's handgun to collective paranoia turned into scripted illusions that were reassuring, inside entertainment spaces. His special effects "script" a story in space, about a world where the ominous can appear normal, a magic realism about surveillance blended happily with shopping. It is Electronic Baroque, all-purpose immersion, total theater (*gesamtkunstwerk*). The shopper's daydream replaces, yet resembles the industrial city of 1942, like turning a forties cityscape into a theme park. The Modernist urban grid converts into Baroque special effects. It copies a street perhaps from Haussmann's Paris, particularly from the Opera district in 1900; and turns it into an outdoor mall. Like Baudelaire having a latte, you can study the eyes of the poor in comfort, rest your tired bones during Orange Alerts, in the midst of the Second Gulf War.

The best *f/x* masters—and Mead is certainly one of the best—can design the monumental fake that this new global imperium requires, much the way Koolhaas's "Googs" did in Las Vegas. But this too has its history: precursors during the twenties. Indeed, twenties Modernism may have shunned ornament, but it approved of scripted spaces. It cleared the way for Disney, Vegas, and the entertainment city by promising a future of scriptable blanks. These blanks (even from Le Corbusier, a model for *f/x* design) become containers that can easily be filled with Electronic Baroque labyrinths.

Modernism even more than Art Nouveau made the Electronic Baroque possible—again in the twenties, at the Bauhaus and at Soviet design schools, at the UFA movie studio in Berlin. In the U.S., beside skyscrapers, missionary Modernism centered often around fussy but "functionalist" kitchen

appliances—the glory of steel as heroic moderne. The Coldspot refrigerator suggests an ocean liner about to steam away; or a train “streaming” into the station. Twenties myths of industrial circulation—of speed as egalitarianism—turn the everyday into special effects. Industrial Modernism honored these effects no matter how abstracted the forms became. Modernist abstraction—the blank—was already a scripted space that could be filled with illusion. Thus, Syd Mead by 1980 joins a grand designer tradition. He updates designs identified with Norman Bel-Geddes—with thirties and World War II modernism—as Hollywood (and European) *f/x*.

Even Ridley Scott belongs to the same tradition. He began as a set designer at the BBC in 1963. For the *Blade Runner* storyboards, he sketched bizarre 1940’s accessories, as a critique of industrial design itself. That critique—about wartime material culture as everyday paranoia—became a nostalgic hallmark in eighties cyberpunk literature as well, of designer ruins inside a warlord city-state. Similarly, Terry Gilliam’s *Brazil* (1984) turns the industrial city into a hyperventilated labyrinth of ducts, shortages, and terrorist bombings. Somewhere in Gilliam’s twentieth century, transistors were never invented. As a result, technology gets massively lumpy, until it squashes everyone. Options shrink into Orwellian nightmare (the working title was “1984  $\frac{1}{2}$ ”). Early 1950’s Britain is thrown off its orbit. Some things never get to be. Others run ahead of themselves. Fifties consumerism is faintly nazified. All social rules exist in a subjunctive tense.

Thus for Scott and Gilliam, the imaginary 1942 becomes a year of reckoning. Similarly in recent months, while the Bush administration moved towards its ultimatum against Iraq, the news on U.S. cable was shrill and blind, like a scene from *Brazil*. No discussion, no discourse, barely any coverage of the world blanching in horror. The Democrats apparently were showing bad sportsmanship; and French fries were temporarily renamed “freedom” fries. Electronic Baroque media amped up as usual, another grave test for American entertainment, how to show America on the brink, but not lose advertising income—to prove that Americans can stand on one leg for years to come.

By 1996, despite cyberpunk the romance with digital tech had mellowed. Even though Hollywood action films looked ghoulish, the disasters more sensational, an e-boom was underway. E-commerce boosterism was taking over, a flood of excitement about Silicon Valley, about recent college graduates who went there jumping in six-figure incomes right away. Media imagery turned more utopian. Digital special effects finally took charge of postproduction. The worship of the virtual began its short reign.

When I sift through my piles of special-effects announcements about f/x films that fell short at the box office, from *TRON* back in 1982 (too early, too much dazzle<sup>42</sup> to *Natural Born Killers* (1994),<sup>43</sup> I see the spin among insiders as much the same: waiting impatiently for the digital future to save the industry. By 1996, many key effects houses were outside the studios, and claimed, at least, to have shifted entirely to CGI. They remained heavily in demand until outsource boom slipped away by 1998. Movie studios tried instead to develop cheaper in-house effects divisions. That proved a travesty. In 1999, outsourcers experience yet another boom. Indeed, the perverse waves of overproduction in special effects resemble capitalism unbound in the late nineteenth century; or at least globalism unbound today.

As of 2003, the animation industry looks weak, but f/x films appear stronger again. A new trend in overproduction, ridiculously expensive tent-pole features rely ever more on special effects. The new wave is set inside the Marvel universe or Middle earth. Marketers are hopeful again. Gilt-edge f/x sequels seem to mint money. They grow like banks inside the expanding trail of globalization. But is that truly a guarantee?

Hollywood production trends are rarely the same as the economy at large. They often turn profits inversely, while the economy at large is tanking. Thus, special effects do better in times of crisis. They are trauma as reassurance. Apparently, various special effects houses are even gathering more defense contracts, as the war in Iraq speeds along. Digitalics is indeed a morbid science, almost Malthusian. And yet it reveals so much, and in good humor, about collective paranoia. It is indeed our worst nightmare and our fondest desires invading at precisely the same time. Whenever effects “improve”, movies will metastasize (consider what digital effects are doing).

## Note, February 2023

After 2003, Hollywood marketing continued to rely ever more heavily on f/x blockbusters, especially during the Great Recession. Down a rabbit hole it went: production costs kept soaring, to an average of over \$200 million for each movie. And globally marketing these films could almost double their cost. 2011 was a zenith year. *Pirates of the Caribbean: On Stranger Tides* came in at over \$410 million; and yet still made a handsome profit.

But these numbers grew harder to achieve. Clearly, the cost overruns were unreportable. Even Disney’s Marvel universes began to run out of runway.

A great meltdown was inevitable. In 2021, at the height of the pandemic US box office plummeted by over ninety percent. It has still not fully recovered, probably never will. But the pandemic triggered more than just problems at the movie theater beyond inflation and bottlenecks. It had broken the back of globalization (1973–2000)—when the Electronic Baroque had flourished. A shrinking back of the global supply chain will continue for the rest of the decade. This means end of an age, and a deeply unstable future.

It will clearly lead to a new civilization altogether. This alternative capitalist and cultural universe will take decades to settle down, up to fifty years. And no one can speak with certainty about how humane or reactionary this new age may become. Many of the old symptoms will mature. The average buying power will continue to shrink. Increasing feudal oligarchy and political gridlock will continue to damage nation states, inhibit master planning—just when we need it the most.

Special effects always alters itself during such disasters. Many Hollywood insiders hoped that AI and streaming will provide a cushion. The industry strikes in 2023 indicate that this might not be true at all. In fact, those very advances will accelerate a reversal. The new generation of special effects will be less immersive, not as Wagnerian, not as all-embracing. Instead, they will insinuate; parasitically invade us at home. AI parasites are already teaching us how to market ourselves as a commodity. We will truly become tourists in our own bodies.

Special effects will have to live on tinier TikTok screens. Much of film grammar is already reshuffling—altering its use of closeups, tracking shots, even three-act structure, intensifying the role of the viewer, blurring the sense of beginnings and endings. In “effect,” our faces have now become the screen.

It is as if an *f/x* tracking shot escaped from the projector, and landed on to your forehead; then pierced the skin, and entered your brain, like a parasite. It ships out on a protein packet, traverses the brain. The goal is to give “birth” by escaping into the open air, through an auditory canal.

The Electronic Baroque has been inverted. Instead of immersive meta universes, a parasitic nano culture takes over. It makes physical tools for us, like a new bronze age. Its folklore memorializes the microscopic acts of piracy.

Scripted spaces will shrink down, be Tik-Tokked; and increasingly have an expiration date. Indeed, digital capitalism will go haywire inside our brains for many years. And in the meantime, the nation state, corporate capitalism, and the structure of social classes will fall into a spiral. Our collective willpower is increasingly fragile.

But this is not the end of the world. It is life after the end of the world. This is our Permian Age. It will seem long to us, but it is a weekend in the life of the planet. We will most certainly survive; but not much is guaranteed unless we act. It is now mid-January 2023. The mood across America has plummeted from its 2020 hysteria to a seasonless climate, like the surface of Mars. The business of blockbuster cinema is trembling in much the same way, toward rapid flip-flops. Within the next five years, American government will keep struggling through a moral drought from top to bottom. This section was meant as a coda to the hollowing out of the West—especially to the last years of America's dreamy Gilded Age. But even more so, it was also meant as a template for what comes next. I still believe that Americans will break free. But the second half of the twentieth century will feel almost like a subjunctive tense.



## 13. Animation as Baroque: Fleischer Morphs Harlem; Tangos to Crocodiles

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### The Place of Animation in Special Effects

Animation was very much a Baroque form of narrative, highly evolved by the mid-seventeenth century. Steadily, as cinema took charge of visual culture after 1895, it lost its earlier links to theater and scripted spaces and became associated mostly (and then entirely) with the flat screen. But that was only temporary. After 1955, with Disneyland, animation returned to its roots, as an architectural, sculptural, and graphic narrative.

Today, a much expanded animation is arguably the primary story grammar for the Electronic Baroque era. Smart bombs are essentially monitored through animation. The desktop on your computer screen is animated. Computer games are animated. The broad principle of user-friendly software is animation—to bring algorithms to life, to anthropomorphize data. We imagine that we have more control because the icons seem to notice us; but with each user-friendly step, we move farther from programming itself.

In much the same way, special-effects cinema is the “uneasy alliance” of animation with industrial melodrama;<sup>1</sup> because animation evolved earlier than 1820, when melodrama essentially is formed. Thus, animation is not a dramatic art, not in our usual sense of the word. It is an “elemental” mode of story, closer to folklore, fairy tales, epic sagas, to its seventeenth-century roots (if not older).

Most of all, animation is story about warring media—where one medium traps another inside it. Puppet shows and commedia dell'arte are caught in mid-motion inside a drawing. Sculpture is jump-started to life as theater. The precise distance from a Bernini sculpture when the flesh turns back to stone is animation. This makes for narrative about uneasy alliances, very much a Baroque sense of story.

As a special effect, animation is a sensory echo—the instant when still images can be sensed. It is momentary, a brilliant pause inside moving pictures. You suddenly notice the strings of the marionette. The drawing climbs briefly out of the movie. Isolated still frames break through the stream inside the projector.

In my book *Seven Minutes*, I review aspects of how animation has expanded since 1928: how it continued to rely on links to music hall and vaudevilles, to nineteenth-century illustrated books, to the comics. In other essays, I notice animation expanding into TV viewing, TV commercials, MTV editing back in the eighties. Very early, in Oskar Fischinger's movie commercials (masterpieces from 1929 to the fifties) animation became a primary form of selling a product. It was always interactive marketing, the art of direct address, of making your pitch cleverly. During World War II, SNAFU cartoons and Disney training films showed millions of soldiers how to protect their weapons, avoid malaria and syphilis, watch out for spies. Animation is instructional madness made coherent—controlled anarchy. It maps the unfindable as direct address, very useful for special-effects propaganda, or as spoofs of propaganda; a strangely intimate, nonthreatening way to visualize fear (as in animated movies about the risk of crash landing—for passengers while they fly on airplanes). It is a carnival about dying, and coming back to life.

Animation never required a fourth wall, not in 1650, and not in 1950. Its proscenium was supposed to look fluid, to allow the viewer into the story; or for characters to escape into the theater. It was the art of turning Baroque trompe l'oeil or anamorphosis into moving images. Animation evolved in an era when the actor often talked back to viewer. No wonder then that animation was already “virtual” in Ernie Kovacs TV gags in 1955.

In all its variations, over four centuries (and even further back), one special effect always returned: animation is a string of instants when you sense that this could not be real. It builds stories from moments when both illusion and the “real” are trapped inside the same gesture—or the same gag.

By revealing the illusion in “real” action, animation tells a story about production itself, about the making of; but at the same time, the plot keeps rattling along. As a result, animation often loses character to make a point (an effect). It is consistently less character driven, in order to make the entire screen much more legible: to slip antilogical fragments in the corners, the background, to reveal the hands of the puppeteer.

These intrusions allow for critiques about the “real.” These critiques can be extended to social relationships, to politics, to phenomena. That inspires story-

telling where the animated screen is much more exhaustive than in live action, more like multitasking than linear. But it is linear in its way—or multi-linear, many lines competing at once, a flurry of lines.

In the Hollywood film industry, character animation has been shoehorned into movie melodrama all too often. Hollywood animators are trained to think of dramatic character first and foremost, a kind of slapstick melodrama. That is how a feature cartoon must be made, apparently. And I can see the point in one respect: traces of movie melodrama should be trapped inside the animated dinosaur. But ultimately, the audience comes to see the dinosaur as epic, elemental parody—the battle between industrial myths of free will and epic nonsense. They come to see the uneasy alliance between special effects and drama.

Animation is balletic incoherence suddenly given form and drive, clearly an anamorphic form (from chaos to revelation). The multimedia object flashes to life, very much like *trompe l'oeil*. The tricks with the audience allow for immersive special effects, similar to Baroque sculptural and architectural tricks. It is literally stop-motion, the contradiction between sculpture and “life” brought to a heart-stopping, momentary irony.

In the two chapters that follow, I discuss two forms of animated special effects: metamorphosis and the masque. I realize that the tone of these essays is somewhat different than earlier sections of the book. But animation adds a very unique phenomenology to special effects.

## Metamorphosis

1900: A chalk line transforms into a man's whiskered face. A hand reaches across the drawing, then erases and redraws the face, aging it, changing its sex, its race. Caricatures of blacks, of Jews, of women's naked thighs appear and dissolve, what was called “lightning hand” at the turn of the twentieth century.<sup>2</sup> In 1907, Stuart Blackton filmed his lightning hand sketches,<sup>3</sup> as did Winsor McCay four years later.<sup>4</sup> The memory of lightning hand reappears in Otto Messmer's *Felix the Cat* cartoons of the twenties. Even as late as the forties, Ward Kimball and other Disney animators performed lightning hand as a racy burlesque for soldiers, where the line drawing turns into a naked woman.<sup>5</sup>

Along with chalk<sup>6</sup>—or ink—any number of substances have been used to indicate the human hand tangibly interfering, leaving textures askew: finger paint on glass; shifting sand; or simply programmers using algorithms to make

shapes shimmer without mass. But the effect is essentially the same, in hundreds of animated shorts. The eye senses—almost sees—one substance transmuting into another. It goes from line to protoplasm and back again. And during this transformation, time transforms as well.

While this transforming goes on, another species of special effect makes the look even stranger. Gravity itself seems to disappear. Laws of what goes up cease. An uncanny antilogic assumes control. Objects lose substance: they become mercurial. Flesh, or metal, flows like water, as in the early “morphing” effect initiated with *Willow*, *The Abyss*,<sup>7</sup> and made standard after *Terminator 2*.

Cartoon metamorphosis may seem to be lost inside an architecture of disunities. However, metamorphosis is far more lyrical than a pyramid of gags. It is the animation walk cycle interrupted, spliced. It is a pause, an Artifice, a mode of trompe l’oeil as cinema. In the midst of a walk cycle, a creature changes species. Its body and proportions become exaggerated, with “extremes” on either end. But the frames inside, called “in-betweens,” stabilize the action, make the switch more convincing; and also balletic, rhythmic.

Let us say it takes twenty frames to manage this, twenty painted cels. In a midpoint inside this cycle, between the extremes, there is a *lapse or hesitation*. The picture is suddenly not very readable. For a few frames, the object—the body in this case—does not look like what it was, nor what it will be. This pause is a mode of Artifice, similar to Perspective Awry in the Baroque, a glitch that reveals the apparatus of filmmaking. It is a reveal.

The audience may catch a glimpse of the hand at work—not the hand itself, but the traces it leaves on paper. These traces become an alternative plot point, like noticing the string of a marionette, as part of the story. In Modernist terms, that glimpse is a self-reflexive device. In terms of the Baroque and special effects, it highlights the craft of the animator. Oskar Fischinger’s abstract films are essentially *reveals* as sensory rhythm. But Fischinger’s animation, unlike live-action cinema, a stream of reveals—hesitations set to music—can be extended almost indefinitely.

Like anamorphosis or trompe l’oeil, they move in a very brief sequence. The reveals move in hyper-extended cycles, literally running into each other. The cycles add up to a narrative of sorts, a visual fable about colliding atmospheres (the god descending to earth; the storm raining indoors). They are condensed magic realism, snippets from Gogol’s tales, Kafka’s *Metamorphosis*, or Bruno Schulz’s *The Street of Crocodiles*; and of course, the Quays’ sumptuous adaptation of Schulz’s novel, filled with hesitations as colliding atmosphere. Real meat from the butcher is handled by puppets (an old Švankmejer trick). Screws and

dust in the workshop turn in reverse, as if time were going backward. All the automata coexist as a single organism struggling with paramnesia. They perform rituals without purpose, pray at the wailing autopsy wall, pretend to be shop girls, have sexual foreplay with string and grinning manikins and kidneys from the butcher. They play house with an old lightbulb.

In other words, not only does the body morph, but the air itself does as well. It brings us back to the Baroque automaton: A puppet learns to breathe without string, through cams and levers inside its body. Gradually, its gestures evolve, as if lungs were growing. Visually speaking at least, two atmospheres collide; they swarm into each other, like oil through water. The creature seems to breathe our air and another air at the same time.



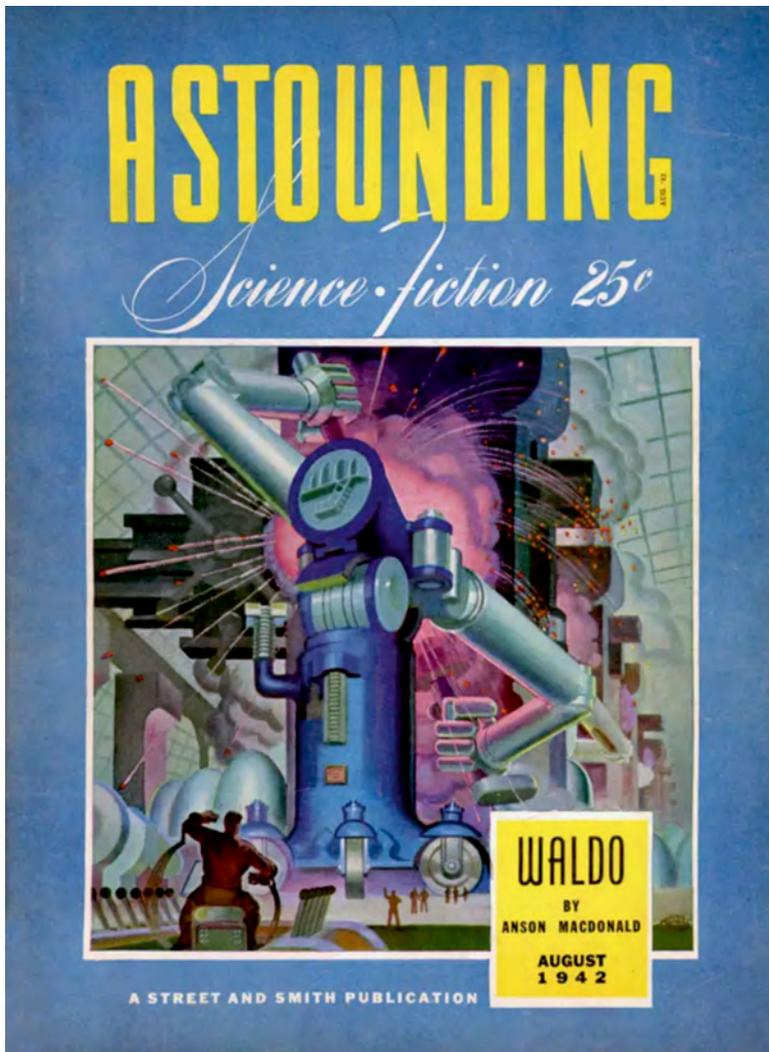
Giovanni Paolo Panini, *The Interior of St. Peter's*, circa 1754. *The eye line is tilted almost diagonally as if listening to whispers behind the archways. But uneasy whispers are drowned out by a labyrinth of special effects embracing the ceiling. These form an immersive sanctuary that leads to the baldachin deep in the background—a brass canopy by Bernini that covers the remains of St. Peter. Panini reproduced nearly the same view in dozens of paintings and engravings. They remain very popular, in fact may have become the standard way to “show” the Vatican as a scripted space.* (Photo courtesy of the National Gallery of Art, Washington D.C.)



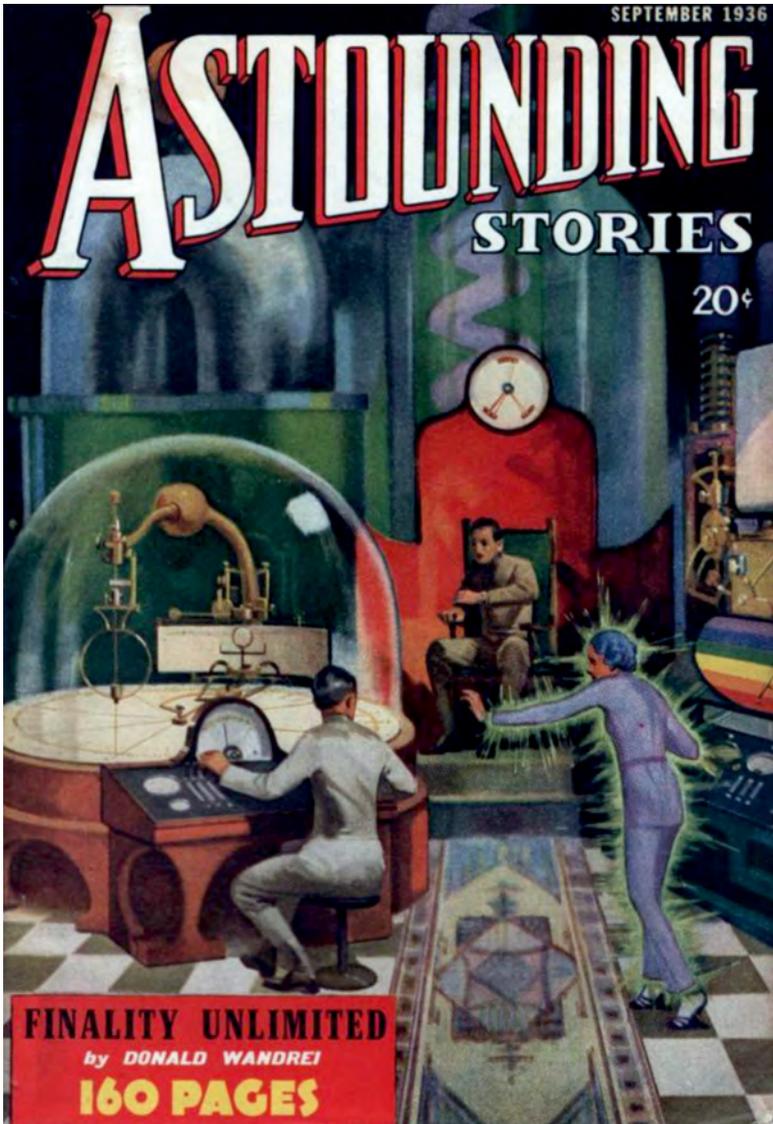
Residents of the Prince Bishop, Würzburg (*murals by Tiepolo, completed 1753*). Showing the point of view of the Prince Bishop, when guests arrived to pay homage. While they ascend the stairs, the prince sees a *tromp l'oeil* that resembles him preparing for the hunt, while Europe symbolically waits. This is the most repeated photo of Würzburg.



*The Zeppelin (1900) precedes the airplane as the first industrial flying machine. As represented here, it stood like a panoramic skyscraper and floated like a Baroque cloud chariot.*



*The famous story by Robert Heinlein that coined a phrase used in the forties by the nuclear industry to describe gripper arms controlled by a human arm. The story's hero, a severely handicapped man, needs to industrially augment his limbs and skeleton, to bring "convulsive movement in his primary waldoes." Like many sci-fi characters, this Baroque Imagineer is also inspired by magic.*



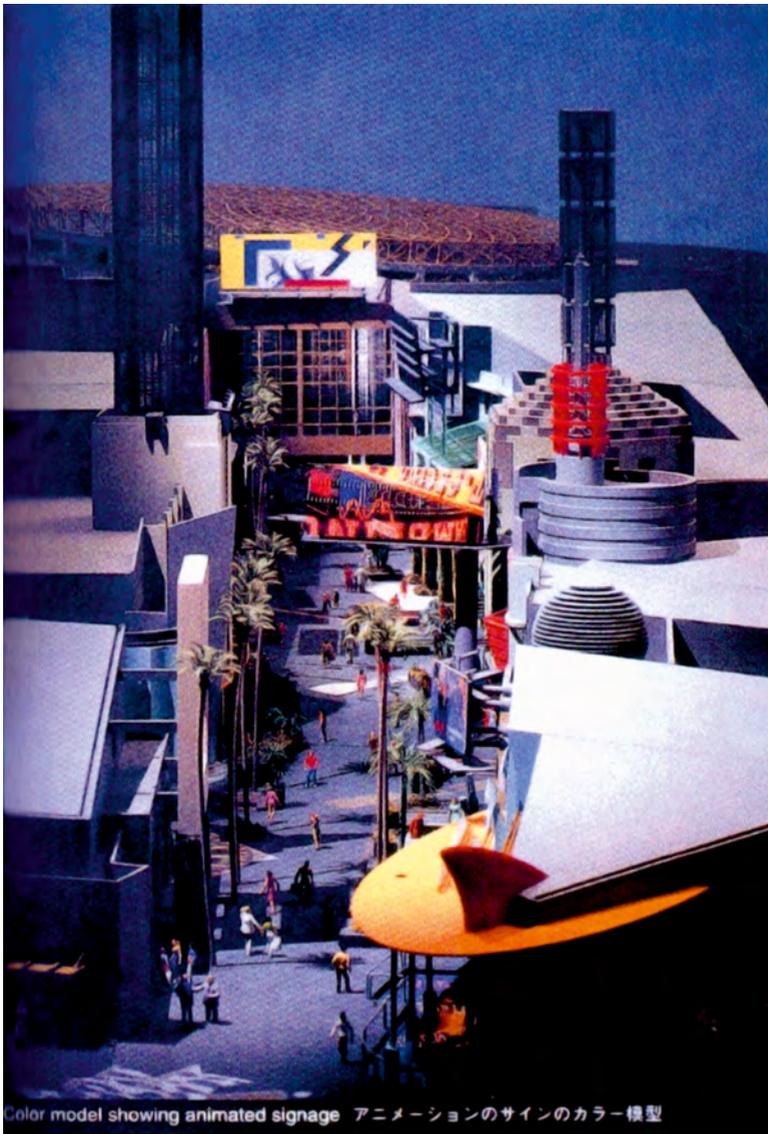
Cover for the story "Finally Unlimited," by Donald Wandrei, about sensory and psychic time travel, particularly to the year 2005, with work stations and gizmos imaged by sci-fi illustrator Howard V. Brown.



A view of the earth, as seen from the moon, by an updated Baron Münchhausen, from a story by Hugo Gernsback (reprinted from 1915). Most of the stories in this classic issue (February, 1928) were reprinted from other sources—a journey through the wars promised before 1914, and the hazards perversely imagined afterward, even of movie “death stars” to come.



*Castle Falkenstein, 1833. Sketch by architect Christian Jank for King Ludwig of Bavaria. The last of Ludwig's huge special-effects castles: planned, begun, but never constructed—except as Baroque Imaginary. In the 1990s, a version of the castle was built in Texas, for weddings and movie shoots. The steampunk computer game, Castle Falkenstein, overflows with Victorian science fiction, Darwinian surprises, and Baroque “magick.”*



*Color model for Citywalk (1994), showing animated signage, and the space of the Universal Studios and the LA Basin below.*  
(Photo courtesy of the Jerde Partnership)



*An early rendering for the Fremont Experience, the outdoor lobby covering Fremont Street in downtown Las Vegas (1996). Architect Jon Jerde considered Italian “anamorphic paintings” as a possible inspiration, then realized that Baroque ceilings would prove far too expensive. Finally a “celestial vault” was installed, a tube of video 2,000 feet long, and 100 feet high (an electronic Baroque). (Photo courtesy of the Jerde Partnership)*



*The New York casino street formerly inside the Luxor pyramid (1996), then removed after New York/ New York was built.*

(Photo by Dave Bailey)



*Watching New York/New York under construction (1997), from the New York streets at the old MGM Grand's "Grand Adventures" amusement park.*  
(Photo by Dave Bailey)

## Composited Space

How does the animator turn this kind of atmospheric palimpsest into story? In simplest terms, the background morphs; it is yet another form of compositing. Imagine Cyrano hopping from the earth's atmosphere to the moon, merely by skipping past a broken yellow line. Depth and mass change hands, as if the background were alive.

How does this tension add up to morphing as story—about the composited space? For clues, we ought to review how animation is drawn. To add life to a drawing, the identity of line should be unstable, to imply movement, breathing. Otherwise, on film, it may coarsen until it becomes bland or unreadable. But it must be firm. Drawing soft outlines around the body may not help, because too often they turn into unlikely shadows on film. Therefore, in life-drawing classes, animators are trained to “forget” simple body proportions. Instead, they study “implied mass,” lines that show the weight shifting from one leg to another. The model's hip is distorted as he strains to hold pose. That may be distressed even more; the outstretched arm is lengthened. These exaggerated torsos might look very sensual, or merely suggest physical discomfort, the presence of time and gravity. But on film, the results will look fiercely energetic, particularly if clever gaps are slipped into the cycle—as in extremes or hesitations.

Then there is the power of erasure, yet another tool vital to special effects on film, before the drawing is “cleaned up.” We look at an animator's sketch pad. To capture implied mass, there is a blizzard of lines. From these, the most “active” (distressed) will be selected. The rest will be erased. The result should leave negative space or mass, which amounts to yet another hesitation, but this version is not chaotic (frozen, entropic, amnesiac); it suggests controlled stability—no waste. And it implies mystery as well: a phantom presence, as if a hundred pounds were hidden in the dust and scribble.

The drawing becomes *allegorical* in Walter Benjamin's sense of allegory—a ruin. It is a dialectical emblem, where all that appears natural is simultaneously Artifice. The obvious comparison would be animated bodies that morph, particularly in the *X-Men* franchise, another Baroque Marvel comic book on film. While the mutants go into morph, their bodies become “events.” One persona “shrivels up,” but leaves an absence (the person they were). Inside this trace, “craftsmanship” is revealed, “like the masonry in a building whose rendering has broken away.”<sup>8</sup>

But animation is shapeshifting not only of the body, but of the space as well; as if body and space were scripted and breathing together. They are a multiple, from colliding atmospheres to dissolving ink—phantom limbs. We imagine the shadow where a picture frame once hung, then sense that the shadow (like *trompe l'oeil*) is actually the leg of a large organism; and suddenly twitches slightly.

All these fragments—bodies, air, background—make a coherent story together, a *condensed* “epic” about decay or loss; in other words, the loss of control, the loss of the past, the loss of representation. It is a composite in decay, shapeshifting across dimensions, many substances into each other. The morph is solid and absent at the same time. It is like a scar that narrates, a braille of absences. The viewer can practically run a finger across the ridge of a hesitation, very haptic, a touch of all-at-once. The drawings leave an elegant wound as they dissolve to make way for motion.<sup>9</sup>

The morph is also a history of production itself, like many special-effects films: a history of the drawing in decay or erasure; or even of the team who made the effects. In thirties animation, the original drawing was cleaned up, then traced by inkers on to another medium: inked and painted on a cel. In the nineties, it is scanned digitally, then paint-boxed, a morph of production itself, with far fewer strings, often fewer hesitations.

Also, the morph should suggest an uneasy alliance inside the character’s body and inside the atmospheres at the same time. Like Dr. Jekyll nervously grabbing his throat, both the space and the body should look as if they might revert back, as if the air is dangerous. The morph is supposed to look unstable, in hesitation, on a journey into antimatter, where many atmospheres meet. Metamorphosis then is a story about *hesitation* and *reveals*. We worry when the hidden will surface: the entropy, the molting, melting.

## Disney Versus Fleischer on Metamorphosis

This haunted and self-reflexive use of hesitation was not universally admired. Disney, for example, distrusted metamorphosis if it made the animator’s drawing too obvious. A revealed scribble weakened the impact of full animation. In the words of Thomas and Johnston, who have become the Boswells of Disney production methods, “When the animator distorts the figure, he must always come back to the original shape.”<sup>10</sup> Donald or Goofy can be made to bulge and implode, but never lose their “personality,”<sup>11</sup> never turn into other

things in the way Warner's characters did. In thirties and forties cartoons, for example, there are no Disney gags where characters who slam into a wall turn into metal coins, and twirl noisily as they land. That trick, so easily laden with frames that hesitate, was reserved for *Tom and Jerry* cartoons at MGM.

According to the Disney rule, once a character's body was shown—rubbery, watery, human-like—that substance was irreducible (no hesitation or lapse). Walt was convinced that revealing the drawing behind the flesh could wreck the atmospheric effects that he prized so highly. He preferred wind, water, or heat to test the character's endurance. Disney nature made war with the character's body. In *The Band Concert* (1935), Mickey stays intact (no metamorphosis of any kind)—and on the beat—while conducting an orchestra thrown asunder by a tornado. His dogged refusal to morph was the central gag to the cartoon.

Pluto was perhaps the only Disney character allowed to show his scribbles—to have “lapses.” For example, in a cycle drawn for the cartoon *Alpine Climbers* (1936),<sup>12</sup> Pluto's body literally takes wing. Lines snarl up until he looks like a bird in a blender, becomes a hesitation. His body appears to dissolve; that is, we see it lost for two drawings out of sixteen. However, in their analysis of this drawn cycle, Thomas and Johnston advise us to turn away from “lapses”: “Never lose the personality of the character in either a long shot or a wild action.”<sup>13</sup> Other hesitations and lapses were treated in much the same way. At Disney, animators were told to avoid speed lines and rubber-band effects common to thirties cartoons—and used frequently by the Fleischers, Tex Avery, and Bob Clampett. Disney was emphatic: clean up by shading; keep volumes constant.

Not that Disney hated to see cartoon characters show off their plasticity; quite the contrary. But the stretch and squash that he thought pleased the audience would make “lapses” impossible. For example, characters were supposed to trip broadly, but slowly and gracefully. Goofy in particular often loses his balance so slowly that he seems to be moving in a tai chi exercise. He surfs empty space while he plunges two hundred feet. No matter how awkward the stretch, his body mass remains amazingly constant. His legs knot up like a fishing line, but never lose their mass—never a loose line to remind us of a flat drawing.<sup>14</sup>

For the early sound era, Disney's rival for cartoon special effects was clearly the Fleischer Studios. By contrast, the Fleischer Studios in the early thirties (1931–1933) specialized in metamorphosis, with a simultaneity of effects that is still extraordinary to catalogue; certainly by Disney standards, this seemed to wipe out the coherence of “story”. Unlike Disney, the Fleischer animators liked to emphasize “traced memories” when they copied from live movement

through rotoscoping (tracing live action into animation frame by frame). They also used allusion in a more self-reflexive way than at Disney—in other words, sight gags about other media than animation; for example, details drawn from vaudeville theaters and Coney Island rides the Fleischers knew. Or even traced memories of New York streets: kosher butchering in a bullfight scene; the Manhattan subway down a rabbit hole.

I suppose much of the difference came out of the Fleischers' love of industrial special effects. The tricks that for Disney revealed "illusion of life" (a caricatural naturalism) for the Fleischers were scientific marvels on display. That meant less commitment to hiding how animation was done.

For example, both studios tried 3-D systems. In the Fleischer version, tabletop models were composited in front of the camera. Miniatures of caves or streets are visually unmistakable; they are much rounder than the cels shot in the foreground. What Fleischer called "3-D" looks much more constructivist than Disney's system a few years later. Disney believed that multiplane should enhance the naturalism of an atmosphere. In Disney's multiplane camera, the cels were placed in slots inches apart, to make them look like atmospheric cutouts in deep focus—smooth from front to back. But in Fleischer (until they tried to copy the Disney look in the late thirties), the solidity of the miniatures is plain to see; it softens the 3-D background severely, leaving the flat drawings—in front of the glass—very crisp and ripe.<sup>15</sup>

## Betty Boop Goes to Harlem, by Way of Coney Island

*Betty Boop's Snow White* (1933) is undoubtedly Fleischer's masterpiece as "lapse," particularly its final sequence in an underworld—both an Orphean journey (i.e., the myth of Orpheus), and an Orphic journey (a silly dance of death set to music). Inside this underworld, "hesitations" govern movement and motivation. For example, the evil queen turns Koko the Clown into a shapeshifting ghost, while her mirror keeps sprouting hands; and a blackface to tell her who is fairest of them all. At the same time, Koko as ghost is rotoscoped from a clip of Cab Calloway.

Koko (a leftover from silent animation) was usually the character assigned to such roles. Of all the Fleischer characters he was rotoscoped the most often. By 1933, that gave him a phantom presence, too often invaded. Graphically, rotoscoping leaves scars—something a bit too human, a bit too lithe, subtle but plain to see. Koko practically inhabited two bodies at once, from a car-

toon clown who shuffled (buttery head, sack-like body) to a leaner man who ran gracefully (more angles to his chin; a stiffer spinal column). He was designed to be haunted, wrapped in billowy cloth that was ideal for ghost dancing between bodies, particularly in this, his last extended appearance, his swan song.

Koko sings “St. James Infirmary,” while turning into a twenty-dollar gold piece, then into a “shot of that booze.”<sup>16</sup> At the same time, to illustrate the line “crap shootin’ pallbearers,” the wall behind him is lined with murals of skulls and cows together, gambling. That bears scrutiny, usually requires a few viewings: it is intentionally *traced* like the wall of a Coney Island Mystery Cave Ride. It is also traced out of a collective imaginary (at least the collective of animators). The skulls of African Americans reenact the greasy underworld of back-alley and saloon life in Harlem. But not Harlem as blacks knew it—this is Harlem as the white male Fleischer animators saw it. The skulls resemble the racist extremes in Currier and Ives prints, with Jim Crow white-on-black pickaninny scowls, and the ooga-booga lips common to American cartoons until the late forties.

### Trace Memories

The scene is rich enough in allusions to New York—as the animators lived it—to suggest a Trace Memory; like a foldout postcard filled with racy sketches of scenes in the city, a composite of weekend leisure for the boys at the Fleischer Studios. It is their boozy Manhattan caricatured in some detail, as an inside joke. (On Fridays, the animators used to visit hot spots together, particularly Earl Carroll’s Vanities, the Ziegfeld Follies, wrestling, and hoochie-koochie dance clubs—and of course the Cotton Club.)

Even details on Betty’s body were a traced composite—a traced memory—of women they saw along the way. Her garter was like those favored by hoochie-koochie dancers so popular at burlesque and dance parlors.<sup>17</sup> She slouched her back like a flapper at a speakeasy. Her banjo eyes and her bounce were copied from the moves of vaudeville singer Helen Kane. Her head bobbed like a Coney Island Kewpie doll, shaking on a spring.

The “dramatic” plot, such as it is—more a scripted space than a plot—turns a Mystery Cave ride into a blend of Coney Island and Manhattan. It proceeds like a taxi tour, a few drinks at each stop. First, Betty enters during an opening Ziegfeld chorus number, until the queen orders “off with her head” (another hesitation—her thumb and forefinger turn into a guillotine). Then, while tied to a tree, Betty torch sings “Always in the Way,” as if she were in a vaudeville

“mellerdrammer.” But very quickly, she breaks free. Then, while walking downhill, she trips absentmindedly, rolls into a snowball, and slides into an icy lake. While frozen she keeps sliding, passes through the Seven Dwarves’ cottage, and into a Coney Island ride. Or should I say an amusement-park underworld/morphworld, even with a potted plant on her coffin, to remind us again of New York apartments, where windowsills were decorated with flowerpots.

Meanwhile, the queen is lapsing her way to the cave. She runs the mirror as a hoop over her body, transforms into a hag witch, then forces Koko to shapeshift and freezes Bimbo the Dog. But even this witchcraft fails to kill Betty. In frustration, she turns into a cakewalking, rather cute dragon, with ducks on her head who honk like bird whistles for geese hunting.

The peculiar heat from her morphing into a dragon also melts the underworld, releasing Betty and her friends, as if they were mammoths thawed from the ice. A musical chase ensues, climaxing with hesitations as spectacular as any the studio produced. Bimbo grabs the dragon/witch by the head, and turns her inside out. Her skeleton is visible in black, as if she were wearing tights painted to look like a skeleton for the scary finale on-stage. It is easy to run this skeleton gag frame-by-frame on video: her dragon body melts, then seems to run off by itself—lapses bringing hesitation—while the skeleton makes a three-quarter turn. The way she turns resembles gimmicks in theaters—musical finales on a revolving stage. That finishes off the queen. With a last downbeat, Betty, Koko, and Bimbo flee the cave, and do a May Dance. The lapsed underworld is gone, but the characters show no sign of wear, give no sense that this was any more than a theatrical journey, despite all its allegorical layers—which brings me to broader questions.

The throughline, such as it is, has to be called metamorphic. After all, Betty and Koko’s journey is crammed with versions of shapeshifting, body to ghost; frozen death to life, flesh inside out, a world outside caving in. The morph is theatrical; it is Baroque theatrical machines updated, eroded, lingering on the New York vaudeville stage. And it is the moment of wonder surely, as masque. Like many masques circa 1620, that moment fits into a very thin musical sketch, a dance, not much more than a silly allegory; but filled with morbidity and Grand Guignol.

The morph fleshes out the absence of dramatic plot in this cartoon. Instead, the story takes us on a vaudeville tour through the underworld of New York entertainment: cardsharking; running craps on the street; speak-easies in backdoors; boating rides under the sign of death in Coney Island. The “tour” is about

uncertainty—modernity and the Depression as the Fleischer team witnessed it. Indeed, from 1931 to 1933, Fleischer cartoons have a peculiar bite to them.

*Bimbo's Initiation* (1931) is an early example. Bimbo, as if trapped in immigrant panic, is forced to spin into a labyrinth of imprisoning rooms. Some rooms sprout knives that try to stab him; others grow mouths that gulp him; or erase gravity, and force him to crawl across the ceiling. (The comparison with Kafka's Gregor Samsa seems unavoidable, although the Fleischers knew little of European Modernist literature, or Surrealist theater, film; theirs was a homegrown pathology of urban life.) Bimbo keeps refusing to be a "member" of what seems like a strange Bundist or Masonic order in caricature hooded men with spent candles on their heads, as if this were the world where dead candles wind up, the coolness after the night-light goes out. (Also, this era witnessed a huge revival of the Ku Klux Klan, even as far north as Maine, particularly from 1922 to 1926, but a symptom of problems in many cities.)<sup>18</sup>

Finally, one of the leaders pulls off his hood, and turns out to be a lady poodle, the sexiest poodle Bimbo had ever seen, "a pip" he calls her. She does a bumptious bump and grind for him. He grins as if he were being tickled from the inside out, lasciviously; his eyes follow her. She is an earlier—almost and all-too-human—version of Betty Boop. Immediately afterward, every one of the hooded KKK Bundists takes off "her" hood. They're all copies of this voluptuous Betty Boop. Bimbo slaps Betty's ass; she slaps his too—a raunchy version of the dance black bottom.<sup>19</sup> Then a gleeful layer-cake chorus-line finale ends the cartoon in the way most of the Fleischer shorts of that era ended, like a Victor recording that runs out of threads and simply stops, on a final trumpet or downbeat.

### Morbid Parodies of Industrial Special Effects

This is a dark piece of work for kiddies to watch, even for adults. And there were others almost as dark from Fleischer in the twenties, even before the Depression. In two of the most remembered: the world explodes and New York goes cockeyed in *Koko's Earth Control* (1928); and Max gets multiplied industrially and attacks Koko in *Cartoon Factory* (1925). So their apocalyptic cartoons can be peri-odized, from grim machines to grimmer machines. By the mid-thirties, under the censorship during the Shirley Temple era, their macabre twists continue, but are more about repression, more about guilt than dancing on your grave.

Two cartoons in particular from 1936, *Cobweb Hotel* and *Small Fry*, have since become cult favorites in Weird Cartoon collections. They each are built around nightmare chases like the Boop cartoons—many metamorphic scenes—but here instead of bouncy dance numbers, we see flies tortured, or baby fish forced to swim through inky inversions, as if they were inside a Baroque theater filled with watery nightmares. While Fleischer employs fewer morphing gags as the thirties goes on, tries to make cartoons that resemble Disney full animation much more, something of the allegory of underworld remains.

I have always assumed that the Fleischers' insistent diablerie came out of the immigrant world they knew from Bedford-Stuyvesant, Brooklyn, as children. They understood the xenophobia of a Jewish neighborhood, living as part of the largest influx of foreign immigrants to hit any American city at that time. In New York, as in Los Angeles today, up to 25 percent of the total population were foreign born. This, in itself, is metamorphosis—ethnic cultures caught between, in hesitant shock, in lapse.

This agonizing unease was heightened by economic disasters like the Great Depression; or by class warfare, the strikes, the street fighting. These were localized by the Fleischers, into the look and feel of streets on the way to work, the muddle of urban legends, about gangsters, cops, anti-Semitism, racism, even the rumble of the elevated train; childhood friends caught by the Depression; the taste and service of the food.

Consider how animators draw caricatures of this anxiety. They give a cartoon body more reptilian "attitudes." They exaggerate how heavy (and repressed) or light and sexual cartoon clothing can be. A man or a woman use their arms openly or defensively as they walk through a New York street. The subtleties of an urban case of nerves have their own visual tropes, a rhythm in the shoulders, in the posture, in walk cycles; angling the neck just a fraction to watch out for who may be behind you; staying toward the outside of the sidewalk. It is not really a fear of crime so much as a fear of the mixing of classes and races. It is a comfort zone built out of a mood of uncertainty.

This streetwise anxiety is very evident in the mordant edge of Fleischer cartoons; and it is apparent in a different sense today. I am reminded of the cultural aftershocks in L.A. from 1992 through 1994 (looting, fires, earthquakes, massive recession). And I wonder how Homeland Rule and the War in Iraq, and Bushismo in the cities will show up in the gestures of characters in special-effects films to come. In 2003, surveillance is fundamental to the American way of life, and even American entertainment. How indeed today are the shoulders and arms of characters revealing anxieties; how are streets patrolled, how do

people shop at night, how does the politics of class and race erase the daily routine? The sheer banality of controlling one's fear becomes a shaky world made up of graphic "hesitations."

Imagine how someone tiptoes briskly from their car after parking at night in an empty lot. The walk is usually not an expression of "fear," merely how one moves to establish a comfort zone, when the space feels "lapsed." Then imagine how the movie industry turns these anxious (lapsed) zones into cash, into scripts where computer-graphic monsters, as evil immigrants, destroy middle-class real estate. In the nineties, *f/x* blockbusters like *Independence Day* were part of a bumper crop of disaster films inspired by the shocks of 1992–1994.<sup>20</sup> Like Fleischer cartoons, they are fables about lapse and hesitation, allegories about powerlessness, about alien presence, about underworlds where the animator builds social imaginaries about collective anxiety.

The motivation can be a bit laughable, I admit. Imagine power brokers in the film industry (1993–1994) watching houses burn in Malibu; or their pool spilling over while their best china explodes during the earthquake. Then, after the shaking subsides, or the fires are put out, they head for a local watering hole in west Hollywood perhaps, and decide to greenlight any film that sounds like a special-effects disaster epic. Somehow, lava feels right, anything that shakes like a vengeful mountain god.

## Hesitations: Svankmejer and Leaf

We must do justice to hesitations, as the *trompe l'oeil* of special-effects cinema. For example, Jan Svankmejer's *Dimensions of Dialogue* (1982) is a Baroque (or Surrealist) encyclopedia of hesitations (after seven years of repression in Czechoslovakia, as a dissident). It begins with an Arcimboldi creature (a homunculus made of fruit) eating a homonoid made of industrial parts. Through mad pixillation (a technique for speeding up live action), they chop and dice each other ever finer, until they turn into clay sculpture—which segues into the next scene, where clay lovers start off by making love, merging their bodies into hesitations that orgasm.

Then they take a break, reform into bodies, smile. However, one lapse is left behind. A little blob of clay tries to find a home in their bodies, but they kick it away angrily. Finally, the blob becomes the nuisance that sparks a battle to the death between them. The once loving couple literally gouge their clay bodies into a lumpen gravy.

This brown heap acts as a cross dissolve to the third act: Two beefy clay bureaucrats try to communicate diplomatically. Out of their mouths, instead of words, they present shoes to be tied, bread to be buttered, toothbrushes to be filled, and a pencil sharpener gripped neatly by a highly salivated tongue. However, very soon, they lose track of which object is which. They start buttering the shoes, pencil sharpening everything. At last, hyperventilated, they collapse into doughy lard cakes, like melted bulldogs.

Svankmejer mixes up his “lapses,” from clay to everyday objects; that is, by medium, nimbly leaping from food to thimbles to clay to toothpaste tubes. Each substance becomes a robotic piece in a theater of war—a hesitation to mark the precise instant when social codes dissolve into mindless traces. Then the insanity escalates into oblivion. The key to his condensed fable is the mix of everyday media (clay, meats), the metal junk weirdly stuck inside the organic, with the melee that follows: Arcimboldi vegetables; the chopper/blender effect; clay diplomats with rhino necks and watery green doll’s eyes.

Another film rich in hesitation/lapse is Caroline Leaf’s *The Street* (1976), done in fingerpaint on glass, from a story (by Mordecai Richler) set in the Montreal Jewish ghetto during the 1950s. A small boy waits for his grandmother to die so he can get her room, and not have to share with his sister. But his grandmother stubbornly hangs on for months. Meanwhile, neighbors and relatives make sympathy calls, carrying with them a montage of textures: the dense outlines of buildings; the layers of flesh and clothing in a crowded apartment.

Leaf often uses the hesitation as cross dissolve, from neighbors’ bodies to buildings; or as fly-throughs before the age of computer, dissolving paint in the path of children running down the street. The neighborhood is soaked in earthy browns and jaundiced yellows, both nostalgic and suffocating. The boy is trapped inside his vigil, then frightened when his grandmother finally dies. To remind him of his greed, the walls of her room are still textured by her presence. The space is infected by memory, as part of a lingering flashback. Finally, the bodies of mourners swarm into the house on the day of his grandmother’s funeral. Their noise transfers for the boy into vaguely competing textures, fingerprints of memory crossing each other, against the sheer angles of the house.

Here too the lapses and hesitations—the tension between the organic and the industrial object—make for a bizarre statement, like the Brundlefly in Cronenberg’s remake of *The Fly* (1986). Finally, poor Seth Brundle becomes a brooding mutation of metal and tusk, with barely a trace of the human left, or even of the fly. He has been mutated into a hybrid that defies both the industrial and

the organic, yet is frighteningly compelling, because we sense all those phantom human and fly limbs: the traces of genetic activity; bits of conscious will diffused into uselessness, limping, groaning, and collapsing of its own weight.

Lapses to hesitation become an allegory about the organic disappearing into the industrial, as in the Quays' masterpiece, *The Street of Crocodiles* (1986). The Quays very consciously employ hesitation. In 1995, they said: "What's good about film is that while you're moving through space, it opens up these little parentheses and the imagination drifts off and is flooded by these contaminations ... we love that vague wandering off."<sup>21</sup>

Similarly, the crawl at the end of the film is a clue. It is excerpted from the novel by Bruno Schulz, *The Street of Crocodiles* (1932)—a source as rich in "fractured pieces" as the film itself (which is mostly a nocturne based on the book). Schulz sets his narrative, a string of evocative short stories, in the province of Galicia, Poland (a mythical small city near Lviv in the Ukraine). It is very much a haunted town, haunted first by the decline of a gold rush years before; and second—for the reader today—by its Jewish world later wiped out by Nazis. Anyway, the paragraph that the Quays embellish appears in the chapter entitled, predictably enough, "The Street of Crocodiles." That dreamy street is the allegorical setting for the film: a rotting district so embarrassing to the other townsfolk that its precise location is omitted from the map of the city—only a white blank where it should appear.

According to the novel, even the mapmaker had been afraid to visit the Street of Crocodiles. It bears the scars and magical lapses of neglect: cheap jerry-built houses everywhere, suitable now only for the scum of the city. Even the streetcars are made only of papier-mâché. But like a magic-realist illusion, the coaches run blindly without drivers. As the final quote in the film explains, their only "concession to modernity" are montages cut from yellowing old newspapers.<sup>22</sup>

Not that the city at large is that much better; it feels rather gray and dreary. And thus begin the special effects in the story, about vegetation and the inorganic in revolt: To resist urban sadness, the narrator's quirky father tries to flirt with young women who work at the tailor shop. He then declares himself their "heresiarch," lectures passionately on the biological oddities of the city, particularly the supernatural plant life. One alien species grows in thick colloids that can be preserved with kitchen salt. But that does not preserve their cell structure. So instead, the slime imitates the nuclei of whatever lies nearby.

The streets become infected, a perfect host for a very exuberant mildew that can turn a room into hothouse. In some rooms, an even stranger mulch attacks

furniture, until table legs start to grow like trees. The branches climb the walls, and strain against the limbs of the house. The groans of lumber suggest a building about to have a heart attack. Therefore, the furniture itself is victimized by modernity. The joists are crippled like beggars' children.

Brute matter comes to life, and starts to morph into pieces of flesh. But rather than an allegory about animism, it is more about morphing at-mospheres and hesitation. All living things languish somewhere between discovery and annihilation, fail to connect.

Schulz's technique is similar to Vertov's theory of intervals. More to the point, it resembles Deleuze's description of Rene Clair's use of Vertov, for the film *Crazy Ray*:<sup>23</sup>

The desert town, the town absent from itself, will always haunt the cinema, as though possessing a secret. The secret is yet another meaning of the notion of interval: it now designates the point at which movement stops and, in stopping, gains the power to go into reverse, accelerate, slow down.

For the Quays, these intervals are enacted, rather than acted, by dolls and a puppet. Each acts almost blindly, as if suffering from faded memory. The dolls' heads sew cloth blindly. The dolls<sup>24</sup> reenact Jewish ceremonies; and pretend there are missing children who may come back. They remain standing on alert, awaiting orders that never arrive. They pause for silent cues, tilt their heads, then burst into action, based on a half thought. Perhaps they are in the shadow of someone else's story, long gone? Their world is out of scale; they are miniaturized inside an unknown maker's creation. The sewing factory has rusted. No humans seem to work there anymore. The cordage machines spin like ancient film projectors. Occasionally, die-hard spectators show up on the corners of the screen (as in all Quay films). But the voyeur seems no more certain of the direction than the others; he is an ancient puppet—a very important distinction for stop-motion animation. Puppets are another species of "character" than dolls. The puppet's face is weathered, historicized: thoughtful, greedy, scheming. The doll, on the other hand, is merely a remnant of a childhood desire; it is a carrier, much blander in expression, and clumsier in its expressive movement.

## Animated Puppets

The puppet and the doll are very much survivals from Baroque animation. Svankmejer is the son of a puppeteer in Prague. Quite possibly, the Quays knew poet Rilke's essay on dolls. Rilke remembers the scrawny, expressionist wax dolls, made by Lotte Pritzel, from a show in 1913. "The doll was so utterly devoid of imagination that what we imagined for it was inexhaustible .... The doll was the first to make us aware of that silence larger than life which later breathed on us again and again out of space whenever we came at any point to the border of our existence."<sup>25</sup>

As computer-generated imagery has increased, the fascination for stop-motion puppetry has grown. The poses, the blind movement of stop-motion animation puppets serve as psychological "lapse." In their housing, they are neither present nor absent—like Starevich's films (1901–1965), which essentially began the trajectory that led to the Quays' work. There, each body that is animated leads you closer or farther from memory—from insects to onion skins to *pulchinelle* dolls. We observe their source material, as Artifice; and watch them blindly follow a human fable. They occupy two places at once: the production (the hand of the maker) and the space on film, but in Quay, the space seems to refuse to tell the tale. They are stop-motion "parentheses." They are "contaminated" by a lost narrative. Movement proceeds very slowly and precipitantly, the way water leaves a leaky jug—but always with hesitation, gravity in pause. As in Svankmejer, the anatomical scenes use cut organs from the butcher, and scenes where heads are transferred from one body to another.

## Interiors and Miniature

Most of all, *Street of Crocodiles* is an extraordinarily rich *interior* allegory. The "lapses" jump from phantom memory to phantom film production, a journey through an underworld inspired by Schulz's Kafkaesque magic realism, by Svankmejer's Surrealist hesitations, by the rusting of industrial sites (from Pennsylvania where the Quays grew up, to London where they work). Finally, the uneasy memory of the lost Jews of Poland seems represented here as well, a diorama "contaminated" by the Holocaust.

And yet the structure of the scenes is astonishingly coherent, always about inversion, entropy, losing memory: the neglected industrial warehouse; the cordage and blinking windows as the movie projecting without memory; the

puppet without strings unable to remember; the amnesiacal dolls pretending to act sensually; the autopsy as Jewish prayer; sexual foreplay with plaster manikins; screws unscrewing; ice melting; automatons blindly gesturing. From practically every angle—place, character, and plot coexist as lapsed hesitation.

Most surprisingly, this interiorized film (and the Quays' work generally) was embraced in the nineties by the MTV generation. The Quays produced a number of commercials,<sup>26</sup> even some for MTV.<sup>27</sup> A video for the band Tool clearly plagiarized the Quay technique, as homage; the same for a video from Nine Inch Nails. As many student computer animators have told me, they want their digital films to be haunted also ("quayed").

They want the algorithm to also function as expressionist *lapse*, as interior journey about being caught between. Thus, stop-motion puppets serve a warning about the disembodied sensibility that the computer represents, and the poetics of loss that it should reveal, but rarely does as yet. We can find a prophetic allegory in hesitations—morphs about bad faith, corporate politics.<sup>28</sup> Dozens of morphing programs are for sale, from about nine hundred dollars to as low as twenty dollars, most of them extensions of "feature based image metamorphosis" software developed in the early nineties.<sup>29</sup> The technique has escaped from its animation ghetto, and now is vital—not only for mainstream narrative cinema but also for banking, architectural planning, engineering advertising, fax machines, interface design. The name *Morph* (originally a character on BBC in 1981–1983), has taken on a pioneering meaning, as in *Morph's Outpost on the Digital Frontier* (since 1993), for "business, education and entertainment."<sup>30</sup>

The technology quickly outraced the vocabulary. Nineties morphing already resembled (and operated as) an allegory about accommodation, an attempt to turn our 2-D sense of decay into 3-D global fantasies. Perhaps this was a "natural" evolution: one could argue that computer-graphic morphing was always an epic form of evasion. It was an empty display of worlds in collision, of new species of identity that are perhaps no newer than the assembly line, a few frills added to the workplace. But most of all, morphing suggests that we can author our own modernity, not only survive the shocks easily, but run ahead of them—ultimately a very conservative message.

Like special-effects compositing in other forms, Fleischer's style of morph shows us the city imploding. The pauses mid-morph are cracks in the street, *détournements*,<sup>31</sup> the point where myths of outracing modernity fall apart, and we see the crisis of identity (at work, at home) more clearly. The morph has been

something of an antidote. It is a collage where time and space meet entirely. It may be to our computer culture what the dissolve was to film culture—simultaneously a transition and an erasure.



## 14. Panoramic Chases into Nowhere: From Tex Avery to *Independence Day*

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For more than a decade at MGM (1942–1955), Tex Avery hoped that someone would give him a shot at writing and directing a live-action feature, particularly after the success of Frank Tashlin's films. Then as now, however, animators were classified in the industry as crafts people, incapable of making a movie ninety minutes long. Over the past twenty years, however, animation and live action have moved so close together, this rule has changed.

*The Mask* (1994) is a classic case in point: it was made and marketed specifically as a Tex Avery feature. According to the press release, “a hundred” gags were lifted directly from cartoons by Avery and by Bob Clampett, in what the effects team called “animation takes.”<sup>1</sup> That included the famous Avery double takes: eyes bulging priapically; the shriek while body parts explode; the jaw dropping like cement.

From the first scene, Avery's cartoons are the signature of the film. Stanley Ipkiss (Jim Carrey) runs a video of *Red Hot Riding Hood* on his VCR, while he suffers the humiliations of a schlemiel. Then, with Avery on the brain, he puts on the Mask, and whipsaws into cartoon medleys reminiscent of Carl Stallings's musical samplings for *Looney Tunes*. He howls like Wolfie, whirs like the Tasmanian Devil, bounces like early Daffy.

Practically every review of the film cited the influence of Avery or the Warner's chase cartoon. Stanley was as “cocky as Bugs Bunny, as frenetic as Daffy Duck,” “styled after the cartoon great Tex Avery,”<sup>2</sup> the “cartoon style,”<sup>3</sup> “cartoon boldness,”<sup>4</sup> “textbook cartooning.”<sup>5</sup> Jim Carrey's elastic body made him a “biological cartoon of himself,”<sup>6</sup> “proud to have achieved a personal career goal by becoming a living cartoon.”<sup>7</sup>

Even industry “word of mouth”<sup>8</sup> before release promised the next hit in a subgenre called “cartoony” or “comic-book” movies—films that borrow from Warner's animation. Since *Who Framed Roger Rabbit?* (1987), or even *Star Wars*

(1977), practically every special-effects hit had Warner's "takes" buried somewhere, either as a comic-book gag, a black-out aside, or a roller-coaster effect, which originates from the same branch of entertainment as animation.

Also, Warner's gags had become part of the nostalgic humor in many special-effects films. They helped caricature the look of World War II: the candy-box colors; the nightclubs and Nazis; men in porkpie hats, women dressed like Rita Hayworth or Veronica Lake; bawdy chases reminiscent of wartime cartoons like *Red Hot Riding Hood* (1943).<sup>9</sup>

The look of postproduction had finally swallowed the world and filled it with Baroque occlusion. The look began with digitalized motion control in *Star Wars*, then much more layered compositing, and finally much enhanced 3-D animation—through quicktime software, computerized flythroughs, texture mapping. But everyone I met who worked on these effects was aware that the result also brought live action closer to a kind of chase cartoon: a sculptural and architectonic update of cel animation, cartoon layout, and the chase. Animation artists were expected to understand techniques developed by Avery, among other Warner's animators. Knowing how Avery handled cartoon cycles and extremes helps them time an action sequence, or splice in surprises in mid-action: the offbeat aside, the wink to the audience.

There are trade-offs, however. The composition tends to get more congested, again like an Avery cartoon. Effects artists usually are asked to add objects or gimmicks, rather than clean up or thin out. They enliven the shot, from blue-screen effects to garbage mattes. That means much more visual throwaway than in the usual live-action film. Avery was, of course, a genius at visual throwaway. He littered the corners of the screen with tiny posters, novelty caricatures on the shelf, puns on the walls. However, despite the clutter, he knew how to make his chase gags hit like a sledgehammer. That fascinates many effects artists. Avery's timing was minutely exact. He might cut as little as a single frame, between the top of the screen, from where the object appears, to the point of impact further down—slam! He was certain that for action sequences, the audience can sense the absence of one-twenty-fourth of a second.

Chuck Jones disagreed. He thought the threshold was more like five frames, perhaps a quarter of second. But both he and Avery knew the tricks of the trade supremely well, for example, add pauses (frames) to make the collision stronger, to have characters look less prepared.

Special-effects master Donna Tracy has faced similar problems on dozens of effects films, from *Star Wars* to *Independence Day*. She often would cut only a

few frames from a chase, and knew how to contrast the spectacle with zany cartoon elements where necessary—the balloony contours, the anarchic use of scale, the upside-downness. She also had to work frame by frame as well. The slightest alternation, a frame or two, can ruin the movement (the effect) entirely, make it wobbly, or suggest a different mass. This is utterly like animation. It has that same time-consuming minutia. The computer does not shorten the work; it only makes it more thorough. At the same time, a certain anarchy is required, to sharpen the chase. Clarity comes out of the collision of the unlikely, with surprise pauses, and sudden lurches.

But beyond the techniques on the computer, there is the subtle influence of the work environment itself. This is a hidden factor in how animation looks, even its story. The mood at work (the pecking order, etc.) always influences the edge to the gags, the layout. That is partly because they are built so laboriously, no matter how whimsical the subject. On animated features, a team may produce only thirty seconds a day. In applied animation (special effects), the result of weeks, even months, might involve only three seconds of film. All of this takes place in a relative vacuum—very limited contact with the director, except through notes brought by the effects supervisor for the film.<sup>10</sup> Indeed, the animation is applied, almost in the absence of story. Even more than cartoon work, where at least the characters are the actors, the effects crew is kept at a distance from the hustle and tactile presence of live production.

This distanced milieu tends to enhance a plot that often is distanced already, emphasizing the nonhuman, the detached, the mechanized. Five hundred hours are devoted to constructing a tornado or a flock of alien reptiloids killing people; forces of nature that have to look convincingly unlikely, the blind crashing into the blind. The process is very solitary; one abstracted shape harvested at a time, microprocessed until finally, one cannot help but feel disengaged from the political or social buzz outside. The workspace itself tends to look more like a campus room at Microsoft than the tumble of location shooting. The sensory deprivation can get strange. “After working for weeks on an effect,” says Tracy, “all I want to do is smell a real tree.” Within this immersive miniaturized process, other screens nearby can mentally grow into parallel universes.

Also, effects artists have skills that allow them to work in many media, on malls, casinos, theme parks, websites, virtual chat lines, TV commercials, music videos, animated features, kid-vid, and incidentally live-action cinema. Inside an effects studio, one witnesses animation as a global culture, as muscle tissue for a hundred different industries. For a moment, this bank of

screens seems as exciting as a fully packed world. But in fact, it is emptied as well, highly undifferentiated. Anything from a bomb to a cyber toy looks the same—detached, innocent—a computer wire frame, or a miniature. To stay centered it becomes necessary to shut out anything that isn't part of the consumer fantasy at hand.

Then there is the division of labor in the era of the Electronic Baroque—and its “effect” on the final product. I would compare an *f/x* house to a crafts environment in the nineteenth century. People work in small teams, like a porcelain factory in Sèvres or Barcelona in 1890 (dozens not thousands at once), or even the Fleischer Studios in the late twenties. It is not Fordist, not an assembly line, more like craftspeople gathered around a woolens waterwheel. The work feels autonomous but fundamentally industrial, not at all “postmodern.” Beneath the cybernetic politeness, it is a factory for the building of fetish objects. The mood it leaves on its workers is potent indeed, particularly after twenty hours of overtime.

One can sense similarities to Termite Terrace in the thirties into the fifties, to the stream of gags about Leon Schlesinger, to backbiting about working conditions, from *You Ought to Be in Pictures* to *Duck Amuck*. As an industry, animation, like many of the “crafts,” has always functioned inside an industrial pecking order that resembles a feudal manor, very paternalistic, scattered, but severely controlled. Clearly, the computerized version of this plantation ambience will influence the “gags” in special-effects films as well. It is an insular, layered, horizontal form of production, but very hierarchical.<sup>11</sup> What kind of story feels like a gated cyber work community, or like Imagineering workshops for suburbanized theme parks? Outwardly, it is designed to be isolated from “real” social conflict. Inside, cracks reveal tensions. Whatever the plot of the movie, somewhere the ennui of the pecking order inside an effects studio has to enter, and should; it is practically the only modernity that this mode of production does not obscure.

Besides, audiences are fascinated by how illusions are made in the electronic culture: how each layer is placed inside grids and cycles, manipulated frame by frame—and then blown to bits, made into a car crash, or washed away. That sense of erasure, an allegory about dehumanization, is charming, and echoes something unsettling, despite its escapism. That certainly is a kind of story—a temperature-controlled workplace invaded by forces of nature, from tornadoes to dinosaurs to serial killers, terrorists with foreign accents, alien warships. But what narrative theory explains its impact?

First, there is the metonym of special effects. Would it be a stretch to call the mask that Stanley wears the place (the metonym) where special effects enter? The “device” stands in for the process. It is an f/x costume, a nineties VIA headset; or a time-travel chute you wear, like sliding through an MRI at the hospital. The metonym erases your identity, but you wear it like an accessory.

## The Baroque Roots of the Animated Film

A second stage in understanding these cartoony effects films takes us to the historical roots of animation itself, and its narrative theory that animators have relied upon for centuries.

The roots of animation as special effects are not at all postmodern really, nor modern. They are closer to preindustrial. Most effects, before the computer, borrowed heavily from theatrical techniques already old in the nineteenth century. For example, the trick films of Méliès rely on music-hall gimmickry dating back to medieval carnival, also puppet theater, magic-lantern effects since the Counter-Reformation, the wizardry of Renaissance theatrical machines, as well as Mannerist *trompe l'oeil* and anamorphosis. Many of these already had entered the home as well, through popular illustration since Dürer, then mass illustration with the steam engine, along with trick gizmos like zoetropes. In that sense, special effects in casinos, Baroque churches, and the movies share a common heritage; as do the costumes and pratfalls of chase characters like Bugs or Daffy, with Baroque masks on their faces, or dancing in masques.

Thus, masque—as in Jonsonian masque—is updated as “animated” entertainment. It lures the audience into a scripted space imagined on-screen. It echoes stand-up comedy, an elaborated direct address, a formalized call-in show, where costuming of some sort is involved. Chat lines, particularly the 3D kind, have this updated spirit of masque, a reification of power and community that is very controlled underneath its outward freedoms. Masque is not the same as carnival, which tends to be much more anarchic, more scattered, where the audience actually helps design the script of the story and the space. It is animation: controlled anarchy with a cybernetic twist, from software to themed spaces to immersive movie thrills.

The crucial point to remember is that special effects is that wing of animation where the building of spaces is caricatured. Then this space is scripted—scripted often with more care than the fictional characters. That is

basically how animation, as caricatural space, operated for centuries, even before it was projected onto the movie screen, before Méliès, Cohl, McCay—who, by the way, were all masters of animation in real space. In addition to backgrounds in illustration, they each had worked for a time in trick entertainment, at circuses, in magic acts, in music halls. They were experts in special-effects theater, where the audience was winked at, treated as an insider.

Thus, like Baroque spectacles, nearly every form of animation will make an imaginary audience a central character; often even more central than the fictional characters themselves. This audience takes the narrative journey, the ride that is more direct, more like a thrilling labyrinth than a dramatic narrative.

## Shrinking

In the movies, these caricatural spaces were miniaturized. In the United States, Willis O'Brien popularized the use of the movie miniature, first in the feature *The Lost World* (1925), and then of course with *King Kong* (1933). He transferred what was called “trick work” (as in trick photography, and double exposure<sup>12</sup>) into a genre of Hollywood filmmaking.

But this transition was inevitable anyway. After 1927, with the coming of sound, more film was shot indoors. The need for in-camera effects grew enormously, particularly for very elaborate glass mattes, rear projection, and models, microcosms like a Hoogstraaten box, momentarily *trompe l'oeil* mixed media spaces, then transferred on to film. These *f/x* crafts were supposed to be “below the line” generally, hidden rather than exaggerated. They came to be classified within the industry as “animation” because the mattes used techniques similar to cartoon watercolor background, to layout.

Similarly, by the mid-thirties, when models became more essential, they appeared as tabletop animation in Fleischer cartoons; then as sculptural aids for Disney animators, to help them to see more clearly how their characters turned—before Disney tried 3-D as well. A *trompe* 3-D emerged, but stayed relatively hidden. It was still applied animation. While some masters of the stop-motion miniature (O'Brien and Harryhausen) were treated like movie directors, most special effects were relegated mostly to chapters in how-to pamphlets for amateurs, or manuals for professionals, mostly on cinematography.

But that has irrevocably changed. The older techniques are being retooled as software, even for architectural renderings and casino design. Animation

is older than film, the upside-down story inside a scripted space, or as software for war and pleasure and as graphic story. Now that narrative grammar is slowly being recovered as special effects.<sup>13</sup>

## Interact

With interactivity, characters become pawns who do whatever they are told. How can the reader respect them anymore? ... Characters are devices; their job is to engage in transactions.  
—Walt Freitag (1995)<sup>14</sup>

In 1995, the term *interactive* was relatively new, except to veteran computer game designers like Walt Freitag. But the process was very old indeed. Like an amusement park in 1900, or even a Pozzo ceiling in 1685, the interactive was a scripted journey where the audience is a central character: a labyrinth, a ride, a gala, a festival. Character animation is merely descended from a Baroque variant of this interactive or scripted space. To repeat what I said previously: cartoons never were supposed to deal much with dramatic story, not even at Disney really, except for the rhythm and packaging of the animated features. Instead, character animation was used more for parodies of epics and spectacles, about microworlds (microcosms) at risk. It updated themes that resembled folklore, carnival, commedia dell'arte, even borrowing from the Baroque fairy tales of Perrault.

When these microcosms were transferred to the screen, they were still carnivalesque—upside-down—quite different from the Bazinian<sup>15</sup> space. They were not simply illusionistic, but a caricature of normal space, normal gravity. This anarchic, volatile microcosm is littered with self-reflexive and intertextual gags; these gags speak to the audience the way a stand-up comedian does, or a TV talk show does, or a TV commercial. Much on TV, therefore, derives from roots similar to animation, to the navigated “epic” journey of the audience.

The chase cartoon that developed after 1937 was merely an accelerated version of this “interactive” journey, where the audience is hunted and haunted, then parodied. In *Red Hot Riding Hood*, the characters get into war at the workplace. They refuse to perform; they will not play cute melodrama in the usual way. Instead, they prefer a masque on Hollywood Boulevard. Inside a special-

effects microcosm,<sup>16</sup> Avery navigates the audience through madly improvised space, very upside-down, where unlikely gravities meet, and are made to collide.

## Building a Chase

If story as a chase cartoon is closer to Baroque “interactivity” than drama, what is its structure? Select your favorite chase in a special-effects action film circa 1995. What is the vocabulary? Do we go to meet the couple, or watch them escape from dinosaurs? In *Speed*, the couple do not meet for sex (not even for first names) until the last scene; after panting together inside that bus for hours. We see that there is no time for love on a runaway bus with a bomb ticking underneath. Or during a fistfight. There is almost no room for dramatic development between characters, except as stock pantomime, what I call dramatic shorthand: a quick “Hello, what’s my conflict?” and on to the chase. That is what passes for dramatic structure in many chase films, even in the best of them—like fairy-tale characters racing in a cartoon.

However, despite the pubescent spirit or thudding redundancy in many of these chase films, their sheer impact can be breathtaking. For *The Mask*, most critics solved this problem by isolating Carrey as the good cartoon (“smokin”), and the rest as the *blague* or blah of the story. But isolating him as what? Reviewers identified with his balletic commedia gags, his mad caricatures, but not as a man in dramatic conflict. Donna Tracy explained: “The cartoony look of Jim Carrey in *The Mask* brings feelings to us about our own lives, not about his life in the story. We feel the exclusion of our own emotions. We feel ourselves hiding our emotions and content so much, as he does.”<sup>17</sup>

The character is supposed to be a shell, that is controlled by outside forces, as if “it” were attached to a Baroque machine: to ropes and cams and levers. While wearing the mask, Stanley’s frenzy is by no means expressionist, not so much about intimacy (or the unconscious as it usually is represented in movies). Stanley is trapped inside an apparatus<sup>18</sup> that forces him to explode like an animated cartoon. The frenzy is a force of nature taking him over, not about free will, really. It is screwball noir without any interior self. The mask is a container, like all animated effects, an allegory about determinism.

Dramatic narrative, by contrast, is very much about free will, about individualism.<sup>19</sup> If Stanley were in a dramatic story, it might be *Dr. Jekyll and Mr.*

*Hyde*, though this story also reprises regularly in special effects, recently as *The Nutty Professor*, *X-Men*, *The Hulk*, *Spider-Man* (the marvels of Marvel).

## Scripted Spaces as a Schizophrenic Brain

Jekyll/Hyde is a blueprint that continues to prove mythic for many “dark metamorphosis” stories, especially in graphic novels and comics (*The Mask* from Black Horse Comics),<sup>20</sup> for dozens of personae since *Batman* first appeared in 1937. What does Stevenson’s dramatic narrative suggest? Clearly it is a tale about the moral dilemma of releasing self-control, as with Poe, one of Stevenson’s literary heroes, or with Shelley’s *Frankenstein*, and many others. But it is also a response to the burgeoning growth of London in the 1880s, to slums, prostitution, the flammable mixing of classes, the invading proletariat, the revenge of the declining gentry. Let us say that Jekyll’s torment is an allegory about evil twins behind the untrustworthy myths surrounding the entrepreneur. The haunted cowboy must face his evil twin while heading west (usually an evil brother, as in Winchester 73). The hard-boiled detective is mostly another criminal down these mean streets. Even Stevenson’s good pirates cheat their brethren for gold. Jekyll is the Baroque scientist who is so close to a criminal. Anti-heroes will die trying to figure out where free will ends. Hyde refuses to make an honest profit, or to stop defying God’s law.

Melodrama, in its nineteenth-century variant, is often about evil businessmen with a warped idea of predestination and salvation. The proletariat, who in melodrama are rarely socialists, must restore free enterprise to its moral path. But in animation, few of those moral niceties matter. Its individualism is boundless, antilogical; in fact, about the unnatural order of all things. Dramatic narrative is beside the point. It is the hardware of power that drives animated stories.

Animation, even in its preindustrial forms, tends toward stories about the reification of the apparatus itself, the special-effects leviathan beyond the individual. This is a horizontal, hierarchical model more than a vertical, industrial one. Characters inside this horizontal machine, inside this Baroque apparatus, move like folk heroes. They tend to be more *elemental*,<sup>21</sup> and less dramatic, not necessarily dimmer or shallower, simply different. Walter Benjamin contrasted the gaudy revenge plays of seventeenth-century German theater with Tragedy.<sup>22</sup> Brecht continually makes similar observations,<sup>23</sup> that the vastness of nondramatic theater offers a peculiar modernity to contemporary perfor-

mance. Their relationship to the magic effect, to the gag, the magic potion, reminds the audience that this is a journey into developmental moments, in the way a folktale or folk theater operates. The character is supposed to be empty, to be filled by the audience's sensibility.

Of course, all this is a matter of degree.

- a) The dramatic story exaggerates the internal dialectic of character.
- b) The elemental story emphasized the conflict around the apparatus itself—much more about power, spectacle and presence.

Special-effects film is a hybrid of *both*. To drive this story engine, each tends to erase the other, leading to a very diminished sense of character. Perhaps this amounts to an allegory about diminished individualism, that the self, as an industrial myth about freedom, cannot survive the effects of the electronic workplace. At any rate, the cartoonlike epic or the elemental dominates.

## Misreading the Special-Effects Story

Critics and, I must admit, film theorists, as a rule still ignore the elemental form of story that is inherent to animation. And therefore they often get flustered by the special-effects film. For example, let us sort through some of the reviews of *The Mask* at the time of its release.

From Janet Maslin in the *New York Times*:<sup>24</sup>

*The Mask* underscores the shrinking importance of conventional story telling in special-effects-minded movies, which are happy to overshadow quaint ideas about plot and character with flashy up-to-the-minute gimmickry.

From David Denby in *New York*:<sup>25</sup>

Some of the shocks are amazing: like pinpricks on your hand, only fun. There's no script to speak of, and the other characters hardly matter.

From *Newsweek*: "The plot's a throwaway. You've got to get on board, or move out of the way."

The responses were much the same with *Independence Day*, which indeed was a bit blunt, a very cynical film, filled with all the hot-button effects, but at least making fun of itself. Still, I saw it from the first row, and wasn't bored, any more than being run over by a runaway bus, I suppose. One of the most common terms used in production of these films is "the ride." As Donna Tracy explains: "The ride is more important than the story. The ride is the story."

What we need to understand is that the ride is an allegory about the audience, about the shocks of globalized economic arrangements, about new forms of visuality, and fundamentally about the collapse of privacy and public space—all of these wrapped into a cartoon *Bildung*<sup>26</sup> without any interior life, in fact bluntly displaying characters incapable of interiors.

In other words, we see a simulation of self as a movie effect. Forget Baudrillard's nostrums for a moment.<sup>27</sup> Simulation (copies without originals) as a device in moviemaking merely announces the folkloric or elemental use of character; then enables the immersive journey, where we the audience cannot distinguish between inside and outside, where our identity is invaded by special effects. And yet, in some ergonomic way, we are comfortable with our self-erasure (or are we?). It is a grim allegory indeed. No wonder critics resent it. Beneath the blithe and thrilling manipulation, there is a warning about the invasion of self—loss of intimacy, personal memory.

We must take these films more seriously, even though they are incredibly cynical about marketing, often so shoddy underneath the powerful spectacle. I could sidestep this problem by taking the high road, of course, use experimental animation as the model for special-effects cinema, for example: stop-motion masterpieces by Starevich, Borowczyk, Rybczynski, Svankmejer, and then the ambient journeys by the Brothers Quay. By melodrama standards, these films are systematically anti-dramatic, outside the range of pop dramatic narrative. But that ignores the engine of *f/x*. Animated "action" films like *The Mask* present a very different set of parameters. Unlike a Quay film, they were a category fundamental to the mainstream, immensely popular, even dominant in the nineties. They were built out of a new form of cinematography that took the global film market by storm, led to glittery articles on the animation industry in the *New York Times*, the *Wall Street Journal*, and a buzz in the art world. This translated into dozens of new animation programs in colleges, even in high schools. Every major studio invested hundreds of millions of dollars to ramp up for more special-effects films like *The Mask*, or *Forrest Gump*, *Independence Day*, and *The Lion King*. The gold mine for licensing special effects in toys, games, clothing, and VR malls was greater than what animated films had earned be-

fore, very much like cartoon licensing, but on an astronomical level. *The Lion King* alone earned over a billion dollars in clear profit, the most lucrative consumer object of the nineties—and before the crash of the animation industry after 2000. This hybridization of animated and graphic illusion ushered in an era that also converted Marvel comics heroes into lion kings.

## Collapsing the Movie Set Into Digital Animation

In 1996, George Lucas promised that digital effects would bring assembly-line efficiency to moviemaking, first in special effects, then for all forms of cinema. Digital libraries were like matte paintings of New York City in studio backlots during the thirties and forties. However, with digital, the process of “blue screen” was so advanced, postproduction almost coexisted with the shoot itself. There would be “no aesthetic advantage in shooting on location anymore.”<sup>28</sup> Digital postproduction seemed as integrative as character designs in old cartoons. The era when digital effects shift from a service industry to production had arrived. Eventually, for Lucas’s *Star Wars: The Phantom Menace*, actors performed on a “digital backlot,” on “minimal sets or no set at all, in front of blue screens, with digital set extensions added in post.”<sup>29</sup> The trompe l’oeil movie set had finally collapsed into software.

As early as 1994, James Cameron compared his f/x company Digital Domain to a master animator at his light table: “Anything you can imagine can be done. If you can draw it, if you can describe it, we can do it”. His version of the collapse of public into private has arrived—as story—on the image-capture stage that he used for *True Lies*. “In Digital Hollywood you won’t even be able to trust your eyes.”<sup>30</sup> Special-effects films, for all their gaudiness, have become the portable cathedrals for this integrated, weirdly disengaged Electronic Baroque civilization.

## 15. The Sim Future of the Cinematic City

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Nineteenth-century panoramas often staged local journeys through the great cities of the world. In much the same way, magic lanterns projected foreign streets on the wall, while lecturers guided the audience on a trip indoors. At least six copies of Venice were built between 1850 and 1910, particularly the Venices in Vienna and Los Angeles. At the Paris Exposition of 1900, illustrator Albert Robida installed an “Old Paris” off the Seine—the year 1450 built from scratch and fully dressed on a street 1,000 meters long. Robida also wrote and illustrated café science fiction about things to come, three volumes on “the imaginary twentieth century” He envisioned fluffy bourgeois ladies on animal-shaped airships cruising above a sky-high Paris. To fill the afternoons, they talk into massive telephonoscopes (telephones with video), watch TV news, and operate computer play stations before the fact. Like the decorative ladies of fashion that Robida illustrated for *La Vie Parisienne*, they pose in isolation away from noisy streets. Their feet rarely touch the pavement.

For an era new to arc lighting, speedy trains, and the telephone, Robida offered a dual fantasy. He imagined a future dominated by entertainment media, and built a future-past dominated by stylized medievalisms. Both were strangely similar, about escape from the hubbub. They captured the principle of “Tour du Monde,” as one busy panorama declared, borrowing a phrase from a popular illustrated magazine—to travel in your mind without ever leaving. This was *armchair tourism*, a vogue that began during the Crimean War, then took off after 1855, in popular wood engravings for dozens of illustrated magazines in Europe and the United States, and in American Currier and Ives lithographs, in stereoptic (3-D) photos; botanical gardens, zoos, carny attractions, dime museums, world’s fairs.

Armchair tourism produced hundreds of precursors to the movie set in the city. Gustave Doré’s densely packed wood engravings for a travel book on *London* (1871, text by Blanchard Jerrold) may be the most influential armchair

imaginary of these. *Doré's London* set the standard for how movies staged Victorian London for over a hundred years; much the way that Piranesi's engravings are still the most popular tourist versions of ancient and Baroque Rome. In 1926, Doré's version of an exercise yard at Newgate Prison reappears as a factory tunnel inside *Metropolis*. In 1948, David Lean relied on *Doré's London* almost exclusively as background research for the movie *Oliver Twist*. Of course, Doré was never much of an anthropologist. He prided himself on always drawing places from memory never sketching on location. Occasionally a bridge from his childhood in Strasbourg shows up along the Thames; or a London fishmonger looks suspiciously French. Charles Dickens even took the same brief police tour that Doré did, to the same opium parlors in London, as research for *The Mystery of Edwin Drood*.

Today, location scouts for the movies are generally no more thorough than that. Some buildings in Los Angeles have been reused for as many as five hundred movies and TV episodes. Movie locations simply fulfill the director's fantasy. And now with digital postproduction, just the bare bones of that fantasy is enough. The rest can be added like putty, until every city becomes Venice; or even one of those streets on the moon that Victorians kept seeing in their telescopes.

Certainly, the movies continued what armchair tourism began. Movies remodel Victorian slums into noir cities circa 1950. As fantasy, both smell of cheap greed and perdition. Sherlock Holmes' London resembles novelist David Goodis's New York, written sixty years later. Only the oral position of Holmes is different. The filth stays about the same. Holmes needs to escape from this filth, return to his rooms despondently; Goodis's characters like to swim in it. In the Holmes story *The Sign of the Four*, the city is both a labyrinth and a monster on the same page, with its "monster tentacles ... throwing out in the country."<sup>1</sup> The masque aestheticizes the city: Baroque theater stages the city: And painters evoke the city. But probably no medium has invaded the collective imaginary of what is urban the way that cinema has. Once the dark Gotham of Frank Miller's trend-setting graphic novel *The Dark Knight Returns*<sup>2</sup> found its way into film, the imago (fierce internal image) seemed to be irrevocable.

## Imago

After thousands of movies over the past eighty years, we carry inside us a combined mental picture of an imaginary American city. It is a city of crowds, during an industrial era, once upon a time between 1925 and 1960—a cinematic city.<sup>3</sup> Its details remain intensely vivid for audiences around the world, now probably more than ever. Its streets are mostly made of brick. Its secrets come to life at night. The camera can move through it in one of three ways:<sup>4</sup>

- A tracking shot inside a messy labyrinth<sup>5</sup> of streets.
- An overhead shot above a very geometric, controlled cityscape, sealed off as if by membrane.<sup>6</sup>
- A crane shot that rises up and down, like an elevator. It climbs toward the windows of fancy penthouses. It drops below the street, into the depths of poverty. Along the way, it crosses horizontal layers. Each layer has been isolated by social class, from the powerful up top, to the weak down below.

In Orlando, copies of movie sets of the city have been remade for theme park events. False brownstones and false Brooklyn Bridges serve as papier-mâché skylines. The sum effect looks indelible because it never existed, except as a phantom, a movie set—at casinos like New York/New York,<sup>7</sup> themed spaces like the New Times Square in New York, cine-malls like the Hollywood at Highland in L.A.; and on computer systems of all kinds, cities of bits, trans-architecture, games.

Since 1997, with the game version of *Blade Runner*, we find dozens of “adventure noirs,” clearly featuring the cinematic city. For example: *Mafia: City of Lost Heaven*; *Dead to Rights*; *Discworld Noir*; *Grim Fandango*; *Nightshade*; *Mean Streets*; *The Pandora Directive*; *Hell*; *Hell Cab*; and, of course, *Max Payne*, “a Hong Kong-action-meets-film-noir detective story.”<sup>8</sup> The details usually involve a detective, loose women, drugs, and bad lighting outdoors. Or in a cozier version, at New York/New York casino, double-hung windows are filled with Manhattan junk. Or in the movie *Spider-Man*, Spidey loops across the canyons of Manhattan. Or simply the alienation of the crowd: an amnionic light across the sidewalk at night, pointing toward a skyline dressed for murder.

These noir touches spark fond memories about poverty and urban chaos. The memories then are turned into miracles of synergy. They are marketed from film to computers to themed spaces. They fit the neoconservative corporate model of the inner city as hell, a racially unfit place: Better to clear out when

labor cogs go up. They are a global “*erehwon*” (“nowhere” spelled backward),<sup>9</sup> a Gotham for the ages—and yet, of no age at all—a powerful grammar for designers across media, from architectural space to cyberspace. And now with the bombing of the World Trade Center, this cinematic city becomes even more spectral, almost sacred; and certainly more traumatic.

This cinematic city makes for ghoulish redundancy in the arts. A good noir murder reeks with nostalgia and exoticism. Its aesthetic rules are also extremely rigid; it tends to strangle experimentation. When I run workshops on how to try something fresh with cinematic L.A., students are amazed by how many filmmakers worship noir as social realism, without questioning. In 1996, during a workshop on how movies misrepresent the L.A. police, two young men in the front row kept weighing in with useful insights, scribbling notes like court reporters. Afterward, they ran up to thank me. I had clarified a truth that they had always suspected: they now understood why movies never lie about cops. What? Didn't my lecture stress exactly the opposite? They looked at me condescendingly. One answered: “Well, we're screenwriters. This has to be the truth.”

I felt as if I were trying to deprogram cultists. All my old new-lefty complaints had evaporated. One way or another, they were certain that movies delivered the truth about poverty through crime stories. Then they explained how this truth operated: Hollywood movies have to be fun. This fun makes them true. That's the only truth you can afford, if you want to keep working in the film business.

I made a hex sign with my fingers, and cheerfully walked on. I occasionally wonder if they are still in the industry today. But their story matches dozens of other encounters. The cinematic city lets a good crime go a long, long way.

As I often remind students, our world may not be deep, but it is definitely shallow and wide. A threshold has been passed. We have replaced public memory with the media. This was already predicted in the twenties, in Weimar criticism of the cinematic city in Berlin (where it was first built). In an advertising brochure for *Der Strasse* (1922), an imaginary viewer witnesses the erasure of Berlin by movies. He watches crews shooting inside a vast indoor set, a copy of Berlin streets (designed by Ludwig Meidner). Once the cameras start rolling, urban reality vanishes. “Forgotten are the gawking onlookers behind the barbed wire fence. Forgotten is the lit clock of the Steiglitz hall tower. Forgotten is Berlin's dark silhouette, even the annoying apparatus of the set.”<sup>10</sup>

Instead, “the radiant facade city” takes over. It is just as noisy and crowded as the actual Berlin, but magically empty at the same time. “I am no longer me,” he writes. “Instead, I am a medium who staggers hypnotized through the unchained chaos of the street.” The spiraling action inside the set utterly hypnotizes him. He feels almost sexually aroused by the absence that is present, by the glamour; until finally the light of the floodlights is put out and the nocturnal apparition fades before the reality of the starry night.”

That is a twenties version of shallow and wide, the erasure of expressionist intentions by the sheer, immersive artifice of the movie set. Siegfried Kracauer, of course, goes even further, by comparing this cinematic city to “mass ornament.”<sup>11</sup>

In recent decades, the cinematic city has indeed gone far and wide, to a CG re-creation of a slum on Mars in *Total Recall*. Or it has gone microscopically wide, to the faint blue ignition when a synapse burns a memory inside your head (*The Cell*, *The Matrix*, etc.). Inside the cinematic sim-city, characters don't need an interior life. They move along like genetically engineered fruit with no flavor, but the shelf life of a doorknob.

Then, by the third act, this cinematic city goes to the dogs. It surrenders to cyborgs or grizzled lunatics with patches over one eye. The social pathology is much the same as noir classics of the fifties; or at least noir graphic novels since the seventies. There are still no safe neighborhoods, no domestic normalcy, except in colonies that escape to the bush in *Mad Max* films. Meanwhile, the overheads of the city at night are still there, as in the fifties. Now, instead of “diamonds on black velvet,” it suggests fascism as feudalism, the neighborhood constantly under surveillance.

Neo-noir, and the city it requires, are Greek theater without an unconscious. All urban realities that are not scented with paranoia tend to be painted out, in order to make revenge and catharsis legible. That makes for rousing stories, but what if this paranoid style of erasure became normal? This noir cine-city is a global brand that helps keep the film industry roaring along. Its banal high concepts reinforce an imago; and this imago makes reactionary values very legible. This can be terrifying for a critic. In my DVD-ROM database novel, *Bleeding Through* (2003), I try to parody the sheer silliness of it. But frankly, many of us love a good imaginary murder on a dark street (I delivered over fifty actual murders in *Bleeding Through*). But that is still fantasy allegory; a *grotesche*. Beyond the fantasy lies the problem, that global marketing ignores neighborhoods and urban niches; and simply exoticizes poverty. Local

color still sells tickets; and that is what those two screenwriters were probably warning me.

Indeed, as a film grammar, this cinematic city is a magnificent edifice. Its noir cuteness is sweet as well as addictive—the flash editing, the epic chases, even its stock characters: the gangster boss and his schizophrenic brother; their long-suffering wives; the nervous bookkeeper who takes a bullet through his eye (gruesome) at the beginning of the third act. And the young hunk who is born again after being stomped by psychotic hoodlums. Down these dark streets, as Raymond Chandler wrote fifty years ago.<sup>12</sup>

In that essay (“The Simple Art of Murder”), Chandler left the impression that he was capturing the social realist fragrance of Los Angeles. At the same time, in letters, he apologized to a detective agency that he was simply inventing his crime world as he went along. Like many of the architects of cinematic L.A., he loved the truths of its untruths. But the best way to lie is with the truth. A little realist claptrap makes for pathologically great murders. So, in balance, complaints aside, I pay my respects to the cinematic city. It clearly deserves (and commands) respect. But what does it say about our fragile future?

Not in the hidden interior—right in the middle of the street the unnoticed, the improbable is gathered and transformed, until it begins to shine, for everyone a consolation.

—Siegfried Kracauer (1930)<sup>13</sup>

Constructed space is ... not simply the result of ... its architectonic or urban references, but also the result of a sudden proliferation, an incessant multiplying of special effects, which, with consciousness over time and distance, affects perception of the environment.

—Paul Virilio<sup>14</sup>

## Five Thousand New Yorks

As of 2003 surely, the imago of Manhattan is increasingly “white, wealthy and walled in,” to use the late-1970s expression. That is not to say that lower Manhattan still does not have immense canyons of public housing, or that above 110th Street, despite “upgrading,” there are not large expanses of warehouses, or streets where many windows show nothing but cardboard boxes. I am speaking of Manhattan as a collective imaginary. It has lost some of its epic

meaning for the twentieth century; the frantic bustle and layered chaos, like Dante's rings into Hell's Kitchen.

When Fritz Lang visited Manhattan in 1924, he saw it as cinema, a "beacon of beauty strong enough to be the centerpiece of a film." Ironically enough, he described two films at once—*Metropolis*, soon to be initiated, and most prophetically, its descendant, *Blade Runner*: Lang was particularly struck by New York at night: the red-and-blue 'tumult on the street enclosed by "screaming green." He saw it in layers. Spiraling lights from the street drew the eye above the cars, above the elevated trains, toward skyscrapers in blue and gold. But even higher still were "advertisements surpassing the stars with their light."<sup>15</sup>

Much the same filmic obsession about Manhattan compelled movie studios in Los Angeles to build "New York Streets" at the same time (Paramount /IMO, MGM, Warner's, Universal, Pox). It was possible to shoot in L.A., and make it look like anytown USA, but the studios needed Manhattan's imagery. This Gotham effect became even more important once sound came in. During the thirties, films could not be shot on L.A. streets any longer. To control the sound, they had to be shot indoors, for the most part. Thus an L.A./Manhattan became much more complex and, very soon, emblematic throughout the world.

But these New York "streets" were not enough. They were usually no more than twenty facades made of board and stucco. The cinematic city required more. You added an outdoor establishing shot of New York, Chicago, London, Paris, to match the wonderful hyperbolic dialogue and brittle melodrama. Indoors, sound stages were modeled on tenements, as in Warner's film *Dead End* (1937). Then effects compositing was added, not just swatting at airplanes in *King Kong*, but in dozens of tricks with urban panorama. Many skyscrapers were *imagined* in movies before they were actually built (e.g., *Things to Come*, 1936). Skylines were invented as miniatures, glass mattes, moving mattes. Harbors were moored indoors, through rear projection.

The result was convincing, but like the advertising brochure for *Der Strasse*, wonderfully fake. It was a highly theatricalized Manhattan, a Mannerist *teatro olimpico*, a world in a bottle. I am convinced that Depression audiences found these deodorized tenement streets oddly satisfying, like the hand of man correcting God's mistakes.

Then, after World War II, this emblematic movie city changes yet again. It gets grittier, more darkly lit (noir). Film crews increasingly return to actual L.A. streets, for "authenticity". However, the "authentic" city still had to match the artificial one made in the camera. Noir was a hybrid of the city with the sound

stage. Only rarely were films shot “entirely on location,” like Dassin’s *The Naked City* (1948), borrowing from Weegee’s photos. “Entirely on location” was so rare that it was announced in the opening credits of Henry Hathaway’s *Kiss of Death* (1948). But the New York locations of *Kiss of Death* look strangely like the L.A./N.Y. streets anyway, as if the visual grammar had begun to erase the insides of buildings, and the mood of the city itself.

By 2003, of course, this erasure is complete. I am convinced that mental images from cinema have displaced our collective memory of the forties American city. We have all absorbed dozens if not hundreds of noir classics. Even by 1960, at the end of the first noir era, these classics were a very false, but thoroughly sexy, record of how inner cities had crumbled. But in fact, much of the inner city was *not* crumbling by 1960. Many downtown neighborhoods were poor, clearly run down, but very stable. It was during the sixties that the crisis struck hardest. Bulldozings and middle-class flight, along with distressed in-migrations and racist slum clearance crucified many poor neighborhoods, as the rebellions of 1965 to 1968 show (in Watts, Newark, Detroit, etc.). We have internalized a fantasy about fifties slums that generally ignores what actually took place. But what a fantasy, like Dante, Homer, and Rembrandt on a binge together. Hollywood had standardized the look of urban decay: a fully disposable, all-purpose Manhattan. This epic city, based on the three principles that I mention on the first page, could be tailored to every continent and every climate.

And when a location didn’t quite fit, it was altered through special effects. L.A./Manhattan, even in its London version (*Night and the City*, 1950), was easy to manufacture. It could be moved from the effects room to the editing room, to a tenement setup inside a real slum. And then for the final shootout, you relied more on a sound stage and extremely delicate lighting, almost dainty lighting, with hundreds of arcs and dinkies, tones worthy of Rembrandt. (In fact, certain low-key lighting was Called Rembrandt lighting.) We also know that Hitchcock preferred the sound stage to real locations. He preferred rear projection for *Vertigo*, rather than drag his actors through a chilly, disruptive morning in San Francisco. One could even argue that the cinematic city was a hybrid between twenties theater and forties cinema; it was theatricalized naturalism as Baroque illusion.

## Apparitions of a Street

By 1960, its nuances were carefully established, like a kit. They could travel the world but, when necessary, never leave the room. They made paranoia look as clean as a perfect crime. As part of the staging for special effects, as opposed to literary realism, noir is designed as illusion: a perspective awry; anamorphic panic; expressionist *trompe l'oeil*. Its visual etiquette is as formal as masque. Its grammar displaces the “real” city. Since 1948, dozens of cinematography manuals, published in London and the U.S., prove remarkably consistent. They clarify each noir setup, like a master text of Baroque scenography; or in John Alton’s remarkable *Painting with Light*,<sup>16</sup> like a formula for designing terror.

Of course, we should remember that Alton had worked in the silent German film industry before arriving in L.A., like so many designers of the cinematic noir city, what Kracauer called “device-created fantasies.”<sup>17</sup> It was Manhattan as twenties Berlin, by way of downtown L.A.—a trans-localized imaginary. But since 1960, global media have found other purposes for it, beyond film. The cinematic city has left the building. Its five thousand New Yorks now feature restaurants, thrill rides, and gentrification.

In Los Angeles, traces of these five thousand New Yorks are everywhere, a ghost in the machine. The Lower East Side is a short drive from the Hollywood sign. I used to live around the corner from a murder scene in *Chinatown*—the death of the false Mrs. Mulwray just a block away from Michael Jackson’s Thriller, across the street from forties middle America in *The Winds of War*. That is Angelino Heights, less than a mile from Chicago in *The Sting*. And barely a kilometer to Mean Streets, and Cagney and Lacey—in East L.A. and eastern downtown, often trans-localized into Manhattan during the seventies.<sup>18</sup> My favorite breakfast joint is at neo-noir central: the opening setup for *Reservoir Dogs* (1992).

On the way to work, I drive by dozens of cinematic flashbacks, moments from fifties horror films like *Them* (on the embankments of the L.A. River), or glimpses of the sewers of West L.A. in *He Walked by Night*. Hundreds of locations that I have researched follow me like dogs chasing a milk wagon.

Of course, some locations are on the frontier, beyond cinematic Manhattan. The old movie ranches have been shut down, for the most part, but on each of them, as many as two thousand were filmed, particularly the Iverson Ranch, the Century Ranch, or the abandoned quarry on Brush Canyon.<sup>19</sup>

Some locations turn into lures for real estate. In Culver City, the old MGM back lot was converted into Raintree Village, a hive of condos centered around

the Lagoon where Johnny Weissmuller as Tarzan used to swim. Next door, another condo village features relics from Tara, which are rare, since Tara was mostly a movie matte, never was built.

Other film locations reclaim lost buildings, particularly those abandoned by the city, useless in any civic sense. The Lincoln Heights Jail was shut down in the sixties, then “staged a comeback” in dozens of films after 1970.<sup>20</sup> It is now a Latino youth club with its own boxing ring. A few remaining guards are proud of its heritage as a movie set. Downtown, meanwhile, is literally a hive of film production. Downtown on Broadway, on the second floor of a seismically abandoned building, a sign propped against the window reads *available for movie productions*.

Noticing all these locations reminds me of that brochure for Der Strasse again, but in reverse. Movie “apparitions” replace the city as you go—with inevitable confrontations. Everyone in L.A. has Buñuelian anecdotes about movie crews transmogrifying their block. I have been stuck in unexpected beer commercials, had film crews casually take over my house at dawn. I saw Planet Earth blow up near Spring Street downtown. One night in 1982, I entered a West Hollywood office building and found myself checking in at an imaginary airport. The sensation is banalizing and bizarre at the same time—cinematic locations as trompe l’oeil.

The most bizarre trompe l’oeil in L.A. may be found at the Belmont Tunnel, just west of downtown. It is 1.1 miles long, thirty feet wide, the bleak ruins left by an abandoned subway (1926–1958). Its grotto effect is worthy of a Piranesi. The walls inside and out are engulfed by graffiti fifty layers deep. Homeless men and feral dogs can be sensed everywhere, but not seen. At the same time, the Tunnel is littered with movie filters discarded by film crews. Dozens if not hundreds of hip-hop music videos, TV commercials, pulp shootouts, and alien encounters have been shot there (for example, *Predator 2*).<sup>21</sup>

But in August 2002, the Belmont Tunnel outdid itself. Suddenly, the dirt path at its mouth was paved over, for the first time in its history. Homeless smells were scrubbed out entirely, given a Lysol bath. Graffiti artists with spray cans were refused entry. A movie crew, protected by rent-a-cops, was preparing to shoot a feature there. The movie will be set in Malibu—about beach-town rich kids on a beer bust during semester break. (City Hall had licensed the deal; but the money it brings will never go to help the Latino kids who live around the Tunnel.)

Sometimes, a location reenacts a tragedy while it is taking place. In 1996, near Cedars-Sinai Hospital, real ambulances were blocked by movie ambu-

lances, because film crews were shooting *Volcano*. Mannequins were posed as corpses on makeshift gurneys. Fake lava and ash were blown like sawdust until it erased the street. For residents, it was a Baroque moment, like parallel universes getting their wires crossed.

Occasionally this is fun, if the private dicks guarding the movie equipment ever let you leave your own driveway. Someone famous might wink at you. Mostly, the feeling is more like watching someone else make money. For residents, “thrills” from movie crews are few and far between. But for tourists, the thrill can be glorious, an epiphany worth the plane fare.

And over the past eighty years, many tourist businesses have exploited this epiphany (glamour in person is undoubtedly a special effect). Indeed, selling movie memory is not new to L.A. In the twenties, up at Universal, the frugal mogul Carl Laemmle used to charge tourists to watch movie shoots. But that was prehistoric compared to Universal Tours parting the Red Sea every ten minutes, or posing King Kong on constant alert. Or compositing the tourist inside a fake movie itself. In 1978, to please my father visiting from New York, we went to Universal Tours. During one of the attractions, I was selected to be a greaseball hoodlum. A fake cop pretended to shake me down in a bluescreen simulation of racist policing. My father was thrilled to see me degraded on TV. I, of course, felt ridiculous.

That same year, at the Culver City studios, I walked through a movie set from my adolescence. As a teenager, I used to visit precisely the same street in Greenwich Village. Now it had been parboiled into a movie set, inside a sound stage for a movie starring the Village People. Even the cinnamon-smelling garbage pails were filled with molded plastic garbage. A chemically hazy skyline was painted in ugly chiaroscuro. Brownstones were made of stucco and chicken wire. For about ten minutes, I rummaged through the sound stage. Ever since, I can't quite separate that set from how Greenwich Village actually looked or smelled when I was a teenager.

This is what promoters call “movie magic,” an infectious part of our global heritage. Even in Rome and Berlin, abandoned movie studios, UFA and Cinecittà, were turned into something like theme parks. In L.A., the Max Factor Museum features John Wayne's wig.

Not that the city of Los Angeles is interested in film locations: there is no program to commemorate them, no signage, no plaques anywhere, except the statue of James Dean in *Rebel Without a Cause*, up at the Planetarium; and that may refer more to the celebrity of a dead cult figure than scenes in a movie. For L.A., movie locations are campfires that must be stamped out and forgotten.

Recently, sets for DeMille's silent *Ten Commandments* (1923) were unearthed on a beach, like an archaeological discovery of prehistoric rubbish. They had been buried to save time and money, to hustle to the next production.

## New York/New Yorks

The capital for exploiting the cinematic city may be Orlando more than Los Angeles. In Orlando, they have built two movie-set facsimiles of New York, and two more of Hollywood Boulevard. At the MGM/Disney New York street, a forty-foot panel has been transformed into a full-service ten-story skyscraper, with a real hotel next door. Along the street, a real New York police car is parked in front of a fake street. Blinking high-rises accelerate perspectives, literally box the compass.

Surely Las Vegas runs a close second after Orlando. In the past decade, five New Yorks were built in Las Vegas (along with Paris, Venice, the Italian Alps, ancient Rome, Morocco, Polynesia, and the West Indies). Near Oz, the MGM Grand set up a modest New York, not unlike the midtown delicatessen and Flatiron building above the Nile at the Luxor. A developer named Mark Adept considered developing a New York skyline as shopping mall, across the street.<sup>22</sup> Finally, that land was converted instead into the New York/New York casino hotel; which, in turn, sparked a very expensive, six-year lawsuit. Who legally held the copyright to build a New York skyline in facsimile? Surely not New York City. During the trial, dozens of other fake New Yorks were unearthed.

However, the prize for the most Manhattans must go to computer games, from *Fahrenheit* to *Mafia: City of Lost Heaven* (twelve square miles). But in 2002, the movie *Spider-Man* performed some interesting trans-local logistics. Along with models and establishing shots, the “canyons of New York” were built inside an old Rockwell defense plant in Downey. And Spidey himself jumped from building to building in downtown L.A., not New York.

Computer graphics adds new “thrills” to architecture, from Gehry to Lynn to Hadid to Rashid. But it does much stranger things to the cinematic city. It turns buildings into denture plates or dental implants, to fill gaps on a downtown street anywhere. The old studio New York streets were flexible, but not portable, or nearly gaseous, as the globalized cine-city has become, one of the ultimate floating signifiers.

As a result, we find inversions—the cinematic city collapsing in upon itself, as it merges with global real estate and branding. Forty-second Street in Manhattan has now been Los Angelized, turned into a welter of video screens. The Greater (and whiter) White Way turns into the Sunset Strip, or is it the other way around, as L.A. tries to invent its own Manhattans? At the Prater in Vienna, I found a miniature Las Vegas casino that could easily have worked for a noir movie shoot of Vegas.

But will this new role for the cinematic city be noir enough and reassuring enough at the same time? Will it meet the standard of special effects as power, to engage the nightmare as a cheerful labyrinth? In Los Angeles, the TrizecHahn mall at Hollywood and Highland (eight acres, 650,000 square feet) is a pale but vast homage to “movie magic.” It even commemorates the famous Babylon set from *Intolerance*, which stood like a giant piano box almost two hundred feet high, intruding at the eastern corner of what became a heavily trafficked street in Hollywood after 1920.<sup>23</sup>

But reality sometimes sets in. Hollywood and Highland has become a red alert for the cinematic city. It has hemorrhaged cash, is on the edge of bankruptcy. The Oscar ceremonies might even be moved elsewhere in the future. After 9/11, the value of the property plummeted \$560 million to \$198 million, with write-downs of nearly \$200 million in 2001 and 2002.<sup>24</sup> They had trusted movie-related businesses like the Warner’s and Disney stores to carry on; they crashed also. Then, like a blizzard in July, to add to Trizec’s misery, the Sears Tower in Chicago also toppled in value after the planes hit the World Trade Center on 9/11.<sup>25</sup> There is a modest, ironic silver lining. Hollywood and Highland boosted real estate values around it, in the neighborhoods nearby, mostly because the project is panoptical enough to make people feel safe around it, like farmers hovering just outside the city walls during a wave of panic. Indeed, as of June 2003, a new phantom is upon us—tastes altered by 9/11. And the slipping global economy. Suddenly, the cinematic city has new baggage; and tourists are not coming.

Polishing an imago can be like polishing a jellybean. First pretend that old photos were actually a street. Then hire an architect who relies on digital imaging. Then make the streets camera-ready. Let special-effects editing step in. Meanwhile in Europe, many old streets are already staged like movie sets. The only need a little polish.

All this, of course, begs the question: Can alternatives to the cinematic city be imagined? The future of cinema clearly lies in solid and digitized architecture, through urban planning, interactive installations and games, and in

themed spaces. But how will these respond to the crisis in content today, to the alienation that the cinematic city ignores—or hyperbolizes into pubescent surprise, a cultural equivalent of premature ejaculation?

As noted, media experimentation is restricted by this cinematic paramnesia, by a grammar based on misremembering—as much as we all love it. Computer games should not pride themselves on looking more “realistic” (that is, more like the cinematic city). We need more playful subversions of the cinematic city, to find a way out of this quandary, beyond fake labyrinths, and plastic alienation.

Meanwhile, the cinematic city grows ever more conservative in its ideology. It is now the new inner city; the new urbanism beyond *The Truman Show*. And I am surely preaching to the choir complaining about all this. So I won't play the hypocrite. I love a well-staged imaginary murder. But I want cinematic forms just as poignant as the cinematic city once was. Simply put, like most of the readers, I want a more engaged vision for our cities today, and for the future of cinema.

# **Part IV. The Electronic Baroque: 1955-2050**



*Los Angeles lit up at night by nuclear testing in Nevada, 1952.*  
(Courtesy of Los Angeles Public Library)



*Neon speed lines of the freeway, Los Angeles.*  
(Courtesy of Los Angeles Public Library)



*An amusement park along the beach, at Ocean Park in Los Angeles (circa 1935). Walt Disney took his children there. At the time, there were five hundred amusement parks coast to coast. (Courtesy of Los Angeles Public Library)*



*Autopia in Disney's Tomorrowland, circa 1955. "A miniature version of tomorrow's highway" "Kids big and small race over bridges and under tunnels at a 'top speed' of 11m.p.h." From overhead, a berm marks the edge of Disneyland. Beyond that, the sprawl of nineteen-fifties Anaheim.*



*Roulette Wheel at the Golden Nugget, 1956.*  
(Courtesy of Los Angeles Public Library)



*Craps Table at the Sands, 1956.*  
(Courtesy of Los Angeles Public Library)

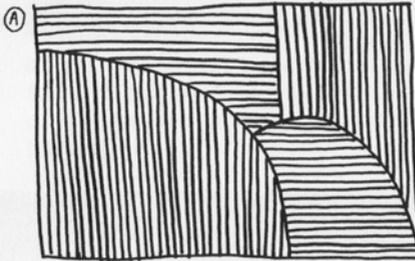
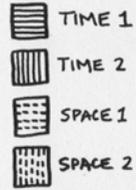


# WHAT HAPPENED TO THE COLLAGE?

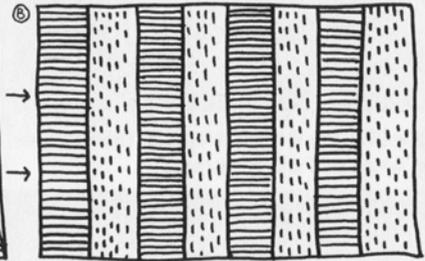
SANDWICHING TIME AND SPACE IN THE ELECTRONIC BAROQUE.

- (A) SIMULTANEOUS TIME (CIRCA 1910)**
  - COLLAGE (CIRCA 1910)
  - SIMULTANEOUS REPRESENTATION OF TIME.
- (B) CONDENSED SPACE (SINCE 1955)**
  - ELECTRONIC BAROQUE
  - THEMED ENVIRONMENTS
  - SCRIPTED SPACES
  - CASINOS, SHOPPING MALLS, SUBURBS,
  - CONDENSED CITIES
- (C) MULTITASKING ON SCREEN (1980-2000)**
  - TOOLBARS
  - MAPPING
  - WINDOWS
  - RENDERING/PROCESSING
  - ADVANCED COPY + PASTE
- (D) CROSS SECTION OF SPACE DISSOLVING (AFTER 2000) THE ELECTRONIC BAROQUE**
  - GLOBAL MEDIA ALTERING AMERICAN POLITICS
  - SMART SPACES
  - UPLOADING SPATIAL/SOCIAL MEMORY
  - DISTRIBUTED NETWORKS COMMUNICATIONS, BLOGS

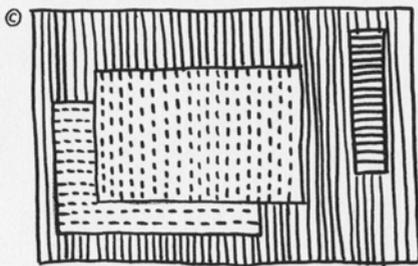
## SPACE/TIME DECODER



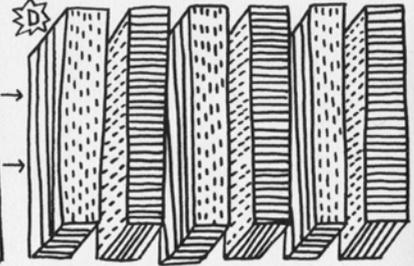
**(A)** COLLAGE (1910): SIMULTANEOUS REPRESENTATION OF TIME 1 & TIME 2



**(B)** CONDENSED SPACE (SINCE 1955): TIME 1 & SPACE 1 CONDENSED



**(C)** MULTITASKING ON SCREEN (1980-2000): TOOLBARS, WINDOWS - OVERLAPPING OF TIME (192) & SPACE (192)



**(D)** CROSS SECTION OF SPACE DISSOLVING (AFTER 2000): INTENSE OVERLAPPING (MUTATION OF TIME (192) & SPACE (192) IN COMMUNICATIONS & MEDIA

↑↓ THE FUTURE

Mapping the Electronic Baroque.  
(Designed by Zak Kyles)

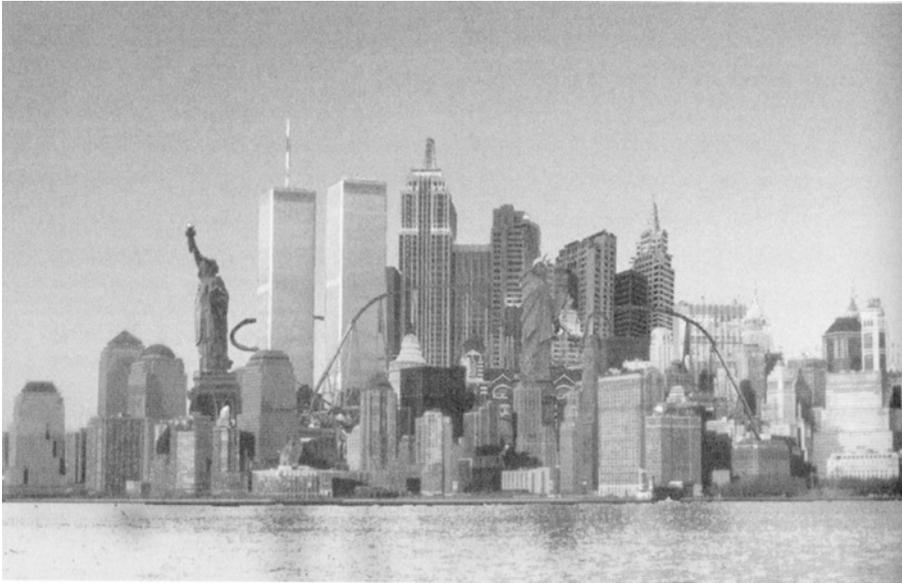


*Vegas “goes” to Bavaria. The Excalibur, lifted from the Internet, is composited with Castle Neuschwanstein, built in 1886. One of King Ludwig II’s most bizarre indulgences, Neuschwanstein is also famous because of its resemblance to Sleeping Beauty’s castle at Disneyland.*

(Image courtesy of GRAFT studios, Berlin–LA, 1998)



*Next, Excalibur-as-Neuschwanstein is digitally “shipped off” to Zurich.*  
(Image courtesy of GRAFT studios, Berlin–LA, 1998)



*New York/New York composited on to the New York skyline.*  
(Image courtesy of GRAFT studios, Berlin-LA, 1998)



*During looting in Los Angeles (April, 1992), clouds of smoke gather behind the fantasy sculpture on the roof of Young Moguls, Inc.*  
(Courtesy of Los Angeles Public Library)



## 16. Noir Disney

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### Weenies and the Big Wow

The movie dog jumps on cue because someone wiggles a frankfurter off screen. That is what Walt Disney meant by a “weenie.” “There’s got to be a weenie at the end of every street,” he was often quoted as saying. Sleeping Beauty’s Castle lures like a weenie, even from a distance.<sup>1</sup> Weenies build memories, make for repeat visits. They are the centerpiece of the scripted space. Historian Steven Watts explains: Weenies “were the large visual attractions in each land’ which caught the eye and drew people along preordained routes so that the crowds flowed smoothly.”<sup>2</sup>

Inside each attraction, one immersive thrill should stand out most of all. Disney called this “the Big Wow”—the peak moment on a ride, when all the techno effects jumped at once. As one Imagineer explained, the Big Wow is “the thirteen-story drop in the Tower of Terror in Orlando.”<sup>3</sup> Even at Universal Orlando, the Big Wow meant “all projectors, screens and physical effects.”<sup>4</sup>

Finally, each attraction should be on a berm. That is, it should feel isolated from the shocks of the world outside the park. Technically a berm was the shoulder of earth that obscured Anaheim from visitors. By the nineties, the term had been stretched. At the newest Disney stores, *berm* meant “the threshold ... isolating the visitor from the street, and inviting a theatrical suspension of disbelief.”<sup>5</sup> As narrative, the berm was the proscenium arch, marking the reassuring boundaries of the scripted space.

To add reassurance, the attraction was designed like a movie set. The visitor’s eyes had to roam like a camera. Thus even the tabletop miniatures that were built for each attraction had close-ups and long shots clearly identified.<sup>6</sup> There was always a hole or grotto; by peeking in, you reenacted a close-up. The space inside was occluded, filled with Baroque surprises. The overhead of the miniature suggested a camera long shot: unobstructed, panoramic. Walt and

his Imagineering team were instinctively merging the two fundamental traditions in special effects—Baroque and panorama. They scavenged through the history of animation, theatrical machines, automata, and auto and road design, and wove this into a nostalgic whole—very controlled, sanitized, but as American as Mark Twain (with the venom carefully removed).

Walt was nostalgic for the Gilded Age. He loved to convert industrial into Baroque miniatures of a nostalgic 1900, to shrink the city of circulation into an automaton. He and various of his leading animators (notably Ward Kimball<sup>7</sup> and Ollie Johnstone<sup>8</sup>) were obsessed with toy trains. Walt called his  $\frac{1}{8}$  scale train the “Carolwood Pacific Railroad”; and made it the prototype for Lily Belle, the railroad that circled the perimeter of Disneyland. On opening day, July 1955, he welcomed guests as the conductor of Lily Belle.

Disneyland models were like elaborate Christmas cribs, like Baroque *crèche*. They were as intensely precious as miniatures for movies, designed precisely to give the builder close-ups and long shots. For the Pirates of the Caribbean (1967), the miniature fully sculpted every expression, every pose of every pirate and wench in Marc Davis’s inspirational sketches. Even the treasure chests had working hinges.

Disney wanted the landscaping to look fundamentally American, as if it had simply grown that way, the look of swimming holes and backyard fantasies. Legends suggested that he even modeled some of the park from huge piano boxes he used to convert as a boy into adventures in the family backyard. Walt loved “wild nature,”<sup>9</sup> like Disney’s “real-life” adventure films. But generally the results were cinematic. To make the Jungle Cruise look “wild” enough going down the river, one Imagineer was inspired by the movie *The African Queen* (1951).<sup>10</sup>

Baroque special effects appealed to Walt, like Pepper’s Ghost for the Haunted Mansion (a Victorian optical illusion based on old Baroque systems of smoke and mirrors). The animatronic Abraham Lincoln and yawning hippos clearly referred back to the Baroque automata of Vaucanson. Even Walt’s presence at the park was to be miniaturized, hidden away inside the  $\frac{5}{8}$  scale. He had a lair, an apartment on Main Street, and planned to have his own secret country club. When he died, it was turned into the 33 Club, the only place where alcoholic beverages were available in Disneyland.

## Noir Disney

Walt Disney waited over ten years to test these ideas at a two-acre Kiddieland near the Burbank Studios. His first concept was called Mickey Mouse Park, to be located on a triangular property right across from Forest Lawn Cemetery.<sup>11</sup> Finally, Burbank city managers balked at the mess this park would make, saying that carmies were sinister places (they approved a freeway over it instead).

Then while researching further, Walt hired a team from Stanford to do a market study of locations that were just about to grow, just outside the orbit of Los Angeles. Applying their suggestions, he purchased 160 acres of orange grove in Anaheim, in Orange County. He manipulated investors against great odds to raise the seventeen million dollars he needed for his triangular amusement park berm inside a newly dug hill, shut off from the world.

His two favorite passions became legendary signatures at the park: the railroad, modeled on one he had at home; and his vision of Main Street USA, circa 1890 to 1905—the entry and hub of the park. After it opened in July 1955, over a million “guests” came to the park that first year. The park’s success quadrupled profits at Disney within only four years, and went on from there, dipping in the sixties for a time, and in the early eighties, but mostly a bonanza.

It was almost the first time in Walt’s life that he had more than enough money to plow into projects without begging. He had spent so much of his career squeezing dollars out of his brother Roy, who was the cautious business manager; or coaxing the Bank of Italy again (name changed to Bank of America); or staving off bankruptcy by taking on contracts with the army during World War II. Or relying most of all on cash through licensing deals with thousands of companies from 1929 onward.

Disneyland became the original happy simulacrum, the oxymoron made solid, but it also has evoked many dark visions. I could call this noir Disneyland, Disney as hell, in the spirit of what director David Lynch called *Blue Velvet*: “Andy Hardy goes to hell.” But there really is a direct political apposition in the way the park was imagined and built. It’s a double of sorts.

I searched for evidence of the dark half of Disneyland’s facade; this is not the first site to have that split. Los Angeles as a consumer, booster fantasy has a double face, as sunshine capital and noir capital. Since 1890, in its way, it has been Imagineered before it was built. Plans to have it grow from a population of fifty thousand to a million were already in the works in the 1890s.<sup>12</sup>

From 1955 on, Disneyland was constantly compared to Las Vegas. The areas around the park were viewed almost as the enemy, like the brothels and

phantoms around the Strip at Vegas. (Finally in the late nineties, the perimeter around Disneyland was given a new, happier face.) Walt and his team continually evaluated how much of the raucous amusement park they could excise from Disneyland; and yet, keep the edginess of turn-of-the-century entertainment, the good-hearted rustic family fun. That made for a Gothic irony continuously observed about Disneyland, about all shopping environments, from the weathered arcades of 1920's Paris to the dog-eared ruins of amusement parks Walt studied in Europe and America (e.g., Tivoli Gardens in Copenhagen, the weary merry-go-round at Griffith Park in L.A.). This ambivalence is constantly at play in Disney parks.

Even shopping malls, in their strange policing of noise and their Gothic silences, have a certain ironic dark side, like *Dawn of the Dead* remade for the Mall of America. Certainly in Disneyland, this "happiest place on earth" impulse can weigh on you, like the classic 1935 cartoon from the Van Beuren Studio, entitled *Sunshine Makers*, where blue meanies are forced to become mindlessly happy when inoculated with milk (this was for the milk board).

When in Disneyland, do we feel released or force-fed? Aren't both images, in some perverse way, equally exciting to the viewer, as you get ready for sleep at the Disneyland Hotel, bathe with Mickey soap, see if you can sudse away Mickey's grin? Isn't there a momentary psychotic joke that makes you laugh, and keeps you involved? For despite all the complaints about Disneyland, and the litigation by Disney to protect its good name, doesn't it still hold true that you cannot insult Disneyland without in some way making the place more tolerable, even exciting to the visitor? Disney funk, like the 1992 song by Dada, "Dizz Knee Land," about relaxing after seeing a murder by mentally heading out to Disneyland.

One finds this double face in any area where tourist promotion dominates, not only in Vegas and LA., but even at the monastery of Mont Saint Michel, a home to tourist pilgrimages since the fourteenth century; you buy skull imagery on ashtrays, in plastic no less, hell and redemption for your keychain, so utterly non-spiritual that you laugh, until you are reminded that these skull pastiches are simply plastic descendants of pieces of the cross and other relics sold to pilgrims in the late Middle Ages. Hell and redemption in the happiest place on earth. People come in droves for a bit of fright, some horrifying slapstick that throws a whimsical wrench to the cuteness, adds some life.

Any tourist location will develop that other hellish edge to its cuteness, as a kind of hidden pleasure, the sinister fun of kitsch if you will, or the artistry of consumer repression. It is the darker edge of consumer fun. And Disney-

land obviously has that side as well, “when hinges creak in doorless chambers,” as the blurb for the Haunted House used to go. Childhood can also be creaky, a happy reunion with yourself as a repressed nine-year-old. Childhood desire is lavishly encouraged; therefore, forbidden desire is implied, even if it is repressed; perhaps encouraged simply because it is repressed.

This obvious paradox is essential to the power of consumer experience, that innocence is more exciting when it is threatened with imaginary violence, that “thrills” are crucial to innocence, that we want safe versions of death, as in melodrama or roller-coaster rides, and a thousand other stops in between.

It has been noted endlessly that all the early Disney movie rides in the original Disneyland, like Mr. Toad’s Ride, or the Snow White and Peter Pan rides, suggested death, and just as death seemed to be around the next turn, the visitor coasted into the light, ride over, and went to the next attraction.

This gimmick was intentional. Those three rides were specifically lit in “black” light, with dark walls and special lamps. It was an old movie trick. The early Disneyland was modeled on movie sets, on accelerated perspective used in movie backgrounds, and on Baroque ceilings, and finally in Vegas facades of the nineties.

The sites were designed essentially in the way that Disney worked on his movies, at least the backgrounds—starting with inspiration sketches first, sorted out by the art director (or layout man). Even before presentations, Walt always hired an inspirational sketch artist, who was supposed to remain anonymous. Every plot point had to be suggested in these sketches, like a Japanese scroll, or like a ride twisting through a tunnel with lighting and effects on the walls. It was an adventure where the visitor was supposed to feel like a character in a cartoon; a character in mock danger, in a world upside down, but safe.

Movie sets were already suburban gated communities, while amusement parks were supposed to feel like inner-city streets gone crazy, a cheerful mob scene. Disney preferred the gated community to crowds spilling every which way, as in Coney Island. He already knew how to market what his gated community produced, beyond the movies themselves. For over twenty years, he had been relying on profits from his Disney brand to remain solvent at all: licensing Mickey’s face for watches, tablets, toys. His operation was already a Disneyland, converting cartoons into suburban fetishes. But to harvest properly, the rules were strict. Disney kept a reign on everything (on all copyrights, name brands). His gated community was intensely hierarchical, privatized and undemocratic. And not only Disney’s: every movie mogul was expected to reign

like a suburban king. It was the Baroque logic of Hollywood—a feudal business inside a city state. One simply had to apply this logic to Disneyland.

Imagine a sound stage circa 1955 as the model for a theme park. The interior is kept in quarantine. The air remains dustfree, to protect the cameras and the light. Facades are repainted constantly, fetishistically. Every surface (even the stars' faces) must begin the day as an immaculate blank—scrubbed, ageless—then be artificially aged when the story required it: fake cobwebs, dust, smoke, fog, wrinkles. Similarly, the visitor to Disneyland was supposed to get something of the thrill that an actor felt on the set (an idea we see at Universal Tours as well, of course, built in response to Disneyland, even using many of the same Imagineering terms, like the Big Wow).

Disney wanted to shut out the usual chaotic amusement-park setting that went with merry-go-rounds and roller coasters—none of the fairground anarchy, and no Ferris wheel. In fact, he wasn't certain whether amusement-park rides even belonged in Disneyland, except perhaps a family-oriented tunnel of love, something that played intimately and could be lit like a movie. Let us remember that in 1955, 3-D was the rage (a rage that ended by 1956); also cinemascope. The screen that surrounded and invaded and was immersive in scale seemed particularly appealing. It seemed modern, panoramic, wall to wall.

Movie sets suggested domesticated, safer carnies. During World War II, when Walt Disney took his young daughters to the merry-go-round at Griffith Park in LA, he found it grimy and uncontrolled. Later, in 1952, when he started researching for his Kiddieland Park, as he called it, agents were sent to carnivals and amusement parks throughout the US. The advice he was given seems painfully ironic today. He was advised never to invest more than \$50,000 in an attraction, to hire professional barkers whenever possible, never to limit access to only one entrance, to rely on circuses for quick fixes, and, above all, never to bother cleaning up too much, because the chaos was part of the appeal, like confetti at a Mardi Gras.

In that sense, amusement parks were explosive, or anarchic; they exaggerated whimsically the chaos of industrial change, or urbanization. They reflected the random look of towns and cities aging, worn like old familiar shoes. Amusement parks were associated with the world of vaudeville, of Coney Island in its heyday (however, even in its heyday in 1910, Coney Island's Dreamland was a dangerous firetrap of staged disasters, like the attraction called the Great Chicago Fire even before Dreamland itself burned down).

By 1945, Coney Island had lost two of its key amusement parks: Dreamland and Luna Park. But more than ever, it stood in for the explosive growth of New

York, for its chaos, particularly on a hot day at the beach, when hundreds of thousands of parched New Yorkers would cover practically every foot of sand with blankets.

The boardwalk had its own history of crime and confusion. The bathhouses, sex under the boardwalk, the problem of drunken soldiers, prostitution had long been part of the myth of the place. The weekender cottages, the weight lifters at muscle beach—if ever an entertainment venue was unscripted it was Coney Island, not simply the parks, but the two neighborhoods around it, with a thumb-sized enclave at its tip, Sea Gate, as the middle-class exception.

Coney Island parks were modeled mostly on the Midway Plaisance at the 1893 Chicago World's Fair, but still closer to a carny midway. Dreamland was by far the grandest of them all. But next door, along Surf Avenue, the side shows and freak shows continued, including the strange Baby Incubators attraction: premature babies in incubators.

The Cyclone roller coaster had legends of curing people. Stutterers tried it. A blind couple tried it. At Tilyou's Steeplechase park, the Insanitarium was the most raucous attraction of all, formerly called the Blow Hole Theater. The scenery was straight out of Bowery burlesque: six-foot-high playing cards, a doghouse, and a tree with three-foot-long hot dog branches. It was designed by Willy Pogany, who had once "painted Constance Bennett's face on top of his own wife's body."<sup>13</sup>

To finish your combo ride ticket, or to enter on the Bowery side, you had to pass through the Insanitarium. But this was no weenie. The sign at the Insanitarium was a painting of a lunatic's face. Its hosts were carny actors who were supposed to be trifle lurid. As each woman passed by, some more enticing than others, the clown would jump "up and down near the floodlights, shaping with his hand, for the audience's delight, the double-barreled curves of Mae Westian figures."<sup>14</sup>

Understandably, the "girls" tended to walk "timidly" through an alley called Comedy Lane, especially after crawling through the doghouse. However, at the turnstile, while waiting for the cowboy to punch their tickets, "a great blast of warm air pours up through the grating ... and whisks their skirts up around their ears." Screaming, the girls scramble away. "The audience is howling. The cowboy whoops: "They got a good airing."

Then "the clown climbs like a monkey up a short flagpole to express his jubilation." But before the girls can roar angrily, a tall farmer moves them along, sometimes with "an electric, stinger" that touches "the nearest buttocks." The clown then grabs the next girl in line, pulls her over the vent in the wooden

floor. Her “dress whirls skyward, and the audience responds. ‘A good blow,’ exclaims the clown.” The full moon seems to blush suddenly. And “the glass eyes of the elephant turn blood red, and the crowd weeps with laughter.”<sup>15</sup>

That was absolutely *not* Walt’s idea of the happiest place on earth. By 1952, amusement parks were often identified with the tarnished world of film noir, of scandal beneath the big top, and carnies. In novels and films, they echoed a rural America that was fading, turning creepy. They belonged to towns before the emerging freeways, before radio and now TV hooked together audiences across the Great Plains, from coast to coast. They reminded the Disney team of towns where a magic show was the only way to cut the boredom, like Bradbury’s novel *Something Wicked This Way Comes*, of lonely and dusty Main Streets, of the shooting gallery beside the general store (Bradbury later wrote the script for some Disney attractions).

Many older amusement parks remained part of prewar America, now worn down. They looked seamy, like bad neighborhoods. Walt’s vision for the future was quite different in 1952. He understood clearly what many so-called “family” consumers saw as progress that year: freeways (with cleaner roadside attractions, new hotels and motel chains); the sanitary look of air travel, of wall-to-wall carpeting; tilted like a rocket (even tail-finned) Googie coffee shops; horizontalized one-stop shopping centers, stripped massively of any encumbrance from prewar ornament; all these so-called Modern features were obsessively designed as a liberation from inner-city decay, which in turn reminded people of the Depression or the war in Europe, or the immigrant neighborhood they wanted to forget.

There is considerable speculation as to how much the 1939 New York World’s Fair influenced Disneyland, even though Walt did not spend much time there (too busy with *Pinocchio*), and only worked on one cartoon advertisement there for Nabisco. Still, the famous General Electric display, Norman Bel-Geddes’s design, for Futurama, had a profound influence on L.A. urban planning during the war, and was very well known. Similar “freeway” models were imagined during World War II.

Also, Walt financed his park in a way similar to the New York World’s Fair, by licensing spaces on Main Street until he had enough guaranteed income to float a larger loan (then, of course, he covered the rest of the capital through his TV deal with ABC television).

He worked furiously to block out the chaos of urban amusements. All this was part of his systematic policy to keep the problems of the world away, to provide a bunkered alternative to anxiety about cities in particular, very much

like L.A. boosters since the 1890s, who invested millions to remind visitors that L.A. was absolutely immune to the problems one found in cities like Chicago. Disneyland was to be cleaned continuously, like one of those new self-cleaning ovens, and would offer absolute immunity to the visitor, a sanctuary like a monastic zone of safety during a Viking invasion, a monastery about childhood, about a simplified history where families were the foundation, and there was no history; because families never changed throughout the ages, or down any of the jungle rivers of the world, or in the old West.

All these locations were built like movie sets with only some structural improvement (many had to be strengthened later, since movie-set building was too fragile, made too much with wood and not enough with steel). They were lit very much like movies, though Walt hired a man who also had designed lighting for the New York World's Fair. The only area not lit like a movie set was Tomorrowland, particularly the Monsanto House of the Future. That was glossy and bright, with a hygienic glow flooding in from outside (at least as of 1955). That future (in other words, the suburban present) was more like a stainless-steel kitchen than a movie. History was adapted in sepia from Jules Verne and Stevenson fantasies—foreign adventure as nostalgic imperialism.

But the overall mood was like a kitchen table in a thoroughly white household—overseen by a man directly committed to setting up anticommunist policies in Hollywood. It was perfect marketing triad: clean movies at a clean park for the clean new medium of television, located by the clean and liberating freeway, in a community specifically chosen because it was away from the worst smog, and was still a small town. Acres of Orange County orange groves were cut away to make room for the park; and that single act of defoliation seemed to serve as a gunshot to a land rush. Disney began the deforestation of Orange County. By 1990, the last of the orange groves were gone. The mystique said that here was the next urban alternative, away from the horrors of the city that was decayed, spoiled; “that old whore” as Raymond Chandler called L.A. in 1946, when he decided to live instead in La Jolla, another Orange County small town.

Disney made a few concessions to chills and thrills (those three backlit rides); but only in the spirit of movie lighting instead of carry gags. He had done much the same in his cartoons, by pointing them away from the out-house humor of his early films, and away from the zany chase cartoon of the forties (Warner's or MGM). Instead, he kept pursuing what Eisenstein (in compliment) called Disney's “lyrical” style. Craftsmanship overcame badass slapstick, a literalization in real space of Victorian picturesque imagery.

Disney was also drawn to the rueful and hellish side of childhood fantasy, to the anarchy in vaudeville (which he loved as much as a good ass joke). They became Pleasure Island in *Pinocchio* (he had to tone down his animators' zeal on that sequence). Walt had spent almost twenty years, since 1932, and certainly since 1934, scaling back the scatological humor, and the grimy small-town gags. He was pressured to tone down the big teats of Clarabel Cow, who would swing her milk jugs ponderously as she ran. Clarabel underwent severe mammary reduction, was turned into a flat-chested schoolmarm cow, not the bovine barnyard milk machine.

Walt knew quite clearly that instead of Clarabel and the outhouse, he was presenting a nonexistent small town, or farm world. He had begun his career by making more gags about outhouses and bare asses than any other animation house. Mickey started out in dirt-packed streets. Richard Francaviglia researched the Main Street of Marceline, Missouri, during the years when Disney the boy lived there: "It was unpaved, rutted and tilled and horse manure helped turn it into a soupy quagmire."<sup>16</sup>

One should also remember the condition of Main Streets by 1952. They were threatened by growing roadside commerce. And yet, in cities like Glendale and Burbank, even in much of downtown Los Angeles, the Main Streets had survived, and still dominated shopping. But they were losing out quickly. Their architecture suited local trade, or even fancier carriage trade; but not automobile cash-'n'-carry. The motor courts, motels, freeways were all considered improvements over the shoddy look of Main Street.

So, Disney imagineered the small town around 1905, when Main Street was gaslit, though most of the lighting (as in movies) came from  $7\frac{1}{2}$  watt lights on the buildings themselves, when Main Street had no room for cars. Main Street was smaller, literally  $\frac{5}{8}$  normal scale: in his words, to remind the viewer that the present is always greater than the past. It is not so much nostalgia here as an ironic use of a collapsing code. As Walt's principal designer for the park, John Hench, explained: "There was never a Main Street like this. But it reminds you of some things about yourself."<sup>17</sup> (Hench, by the way, had been trained as a painter, movie-set designer and special-effects technician; later he became CEO of WED, the company Walt set up to run Disneyland.) Hench understood that Walt planned the park as a kind of psychological journey, one street watching the other. "What we are selling," Hench said in 1978, "is not escapism, but reassurance."

Before Disney World was built in Orlando, the crime (and children's book) novelist Robert Alter wrote *Carny Kill* (1966). He imagined a sinister doppel-

gänger to Disneyland built as “one of those tourist traps that have turned the coast of Florida into a glittering facade.” The tinsel hides “the hundreds of thousands of voracious cash registers.”<sup>18</sup> Like the Vegas Strip or even Anaheim, “this place was on the outskirts, on the tidelands, where acreage is cheap.” Called Neverland, “it was a big, bristling, brawling takeoff on the Disneyland idea out in Southern Ca. You might almost call it ‘a steal.’”

Instead of the Jungle Ride, it had a Swamp Ride. Instead of Swiss Family Robinson Tree House, it had a Taman House. But “start scratching the surface, and the dirt you find under your fingernails is the same grime you’ll find in any clipjoint.” At Dracula’s Castle, “where all kinds of wired spooks sprang at you with earsplitting screams ... your girl’s skirt was blown up around her ears so all the sailors and pimply-faced high school dropouts could gawk at her panties.”<sup>19</sup> “They had the illusion show and the shooting gallery and the fat lady and the tattooed man and the stripshow: “Everything was there but it was out of tune.”

This interplay between carny noir and Disney domesticity has become a standard dialectic in hundreds of movies, TV shows, cyberpunk stories. In any boosterist setting, the con men show up, as they did in twenties Los Angeles. That twenties roguerie was very much an early source for noir literature, that boomed in the mid-thirties.<sup>20</sup> In many ways, noir storytelling is simply the black-light version of streetwise special effects, the card trick that is quicker than the eye, the loading dock behind the shopping mall. Legends about surveillance at Disneyland take on the romance of catacombs underneath Chinatowns. Do exhausted Mickeys go there for a break? How is any form of consumer reassurance policed? What class structure does the scripted space obscure? The fragrance of the carny is very appealing, even though Walt was against selling chewing gum or cotton candy at the park (to stay away from the urban mess that was the apotheosis of the amusement park).

Still, even if Walt hated this noir side to the Electronic Baroque, it was often slipped into caricatures about Disneyland anyway—in Ricky Rat jokes and in underground comix gags about Mickey as a drunk, or the nephews as illegitimate children.<sup>21</sup> It is part of the collective memory, the folklore, that goes with the Happiest Place on Earth, its *memento mori*, its *vanitas*. As I write this, I have a frozen Walt on my desk, made years ago by students at the California Institute of the Arts. False rumor suggests that Walt was cryogenically frozen, and is stored in the basement of the art school that he began. His dissolving face smiles back at me through a cake of ice (a polymer). I rub the top for any version of good luck that Walt delivered. As one critic wrote after visiting Disneyland, I “spent the morning riding through the dreams that lay somewhere

at the bottom of my mind.”<sup>22</sup> They are leftovers from childhood, but also from over four hundred years of special effects, condensed in theme parks, for an emerging globalized consumer civilization.

## 17. Scripted Spaces: Navigating the Consumer-Built City

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The architect studies the blueprint of the casino. Its interior is designed to never look entirely finished. Every few months, each entrance must be reevaluated. Perhaps a corner facing a dreary street is not paying off well. It has to go, and the interior around it must be able to survive radical surgery. Let us say that involves an eighth of the overall floor space, where a “sportsbook” will be added, with banks of screens running football, basketball, baseball games for betting. New ceilings, new colors, new lighting—but only there, never throughout.

Every thirty feet or so should be reversible. If any section on the floor begins to look “tired,” showing five years of age, it should be dressed up, made more “up to date.”

A working casino avoids chronological memory that might be identified as history. Only the ludic memories brought in by the player tourists are taken seriously. Better to build consumer tourist memory than history. For the tourist, time stands still—no docks—only the script.

The scripted space is the dominant model for consumer-built environments, from casinos to shopping malls to theme parks, and finally to tourist plans for existing cities. Facades become shells for a modernity inside, where the flow across a scripted space is paramount. Each square foot must pay off. No space inside is allowed to be considered “finished.”

The areas should seem “junked up” (a term used by the casino industry, at least in Reno). If murals and statues look unusually primitive, or a spot is left nakedly undeveloped, that might be intentional. The interior should never appear too thoroughly coordinated. In fact, it might do well if it looks a trifle unraveled at the corners. This implies personal freedom for the player, the chance to beat the odds. It also helps mask the obsessive controls needed to make every square foot pay off. Similarly, police at malls have to fit into the rhythm of shoppers. Sometimes in southern California, teenagers at malls are handed cards

warning them to behave. Or reminding them that no animals alive or dead are allowed inside the mall. Surveillance cameras study the activity at malls and casinos, not simply to check for crime, but also to monitor which classes are spending money where.

What results is a classist carnival; that is, a restricted design—genteel—and at the same time, flamboyant, Baroque, in ripe colors (even on the Sistine ceiling, or in German Baroque churches, or colonial Mexican *zócalos*). Like a Peronist rally, it mixes populism and political repression. Scripted spaces that rely on illusionistic effects bring on “happy imprisonment” and “ergonomic controls.” Certainly, Disneyland qualifies as happy imprisonment, and City-Walk, and the cybernetic computer for that matter. We need to study the precise details that go into scripting these narratives of control (and presumed freedom), the allegory that the viewer navigates. This is a pilgrim’s progress of sorts, where free will and predestination are balanced uneasily.

In Baroque scripted spaces, the dome “tells” a different immersive story than the basilica. The painted Baroque dome allows the viewer to wander more as a character in a story, under the watchful eye of the oculus. And yet, however glamorous the effects, the viewer is supposed to sense a hierarchy, cosmic or financial, or even egalitarian. The higher order is like the authority of the apparatus; it can be understood only through obedience to the pope or the duke; or to Disney, for that matter; or Microsoft.

Similarly, one should not be too Manichaeic when studying how such designs come to be. “Ergonomic control” (even it seems fascist) is too incoherent and wasteful to be monolithic. For example, in Los Angeles, urban planning, with all its mistakes, often operates like a confused poker game between the transportation and tourist industries, interrupted regularly by sheer greed, and endless holidays. Hundreds of millions of dollars get frittered away, projects left half finished, or half remembered. What results is whimsical, weirdly contoured scripted spaces, “non-finished.” Mount Olympus (an instant neighborhood for the elite) was a real estate fiasco in the seventies, as was Venice in 1904.

Since the late fifties, downtown Los Angeles has been bulldozed into an alien Manhattanized banking district, like an omelet scrambled nearly out of existence. Now a new plan centers around a new loft district, and the new Disney symphony hall. But originally, in the early sixties, while the central hill (Bunker Hill) was stripped, revitalization was supposed to center on Spring Street, the fading, stately twenties banking center. But that beginning was scrapped half-way through, in the mid-sixties, replaced by a more carceral,

glass curtain-wall and brick pedway model for the hundreds of acres left barren on what had once been Bunker Hill. Then the Bunker Hill strategy was scrapped three-quarter way through, replaced by a mixed-use plan in the eighties—to repopulate the rim of downtown, invent an arts district among the old warehouses, add a few “urban villages.” Then this in turn was stopped in its tracks by the recession of the nineties, and has been essentially forgotten. In 1995, in an attempt to prime the pump, public works seemed the answer: a new hockey stadium; a bigger convention center; a new symphony hall; a metro rail that looks mostly ornamental, but with well-appointed, empty stations. What resulted from these misadventures was a grab bag of ponderous architectural sketches, some in stone, some in stucco, some in glass and steel.

Scripted spaces are very scattershot, sometimes just a randomized mix of greed, business competition gone sour, and simple hysteria. What results can have an ironic charm, though—cockeyed parodies of industrial objects, of consumer rituals. The Switchback rollercoaster ride in Coney Island (1884) was modeled on railcars used inside mines. From there, as a kind of Dantean silliness, tunnels were painted. Then the stakes were raised, literally—more simulated hazard (or sim-death, as I call it), because competition among amusement parks led to higher roller coasters, more “hair-raising” rides. It is a parody of capital accumulation.

Illusionism has a unique modernity: it captures transitions in mid-metamorphosis. What results, if it succeeds, should operate as both a warning and a feast. The gimmicks should seem a trifle sinister (even Disneyland rides in the fifties relied on blacklight effects common to horror films); and at the same time, in idealized, exaggerated safety: It is like shopping inside a feudal kingdom; no wonder Disney models their parks on a cartoon feudalism. The shopper learns that the space may seem re-strictive, but it is still free enough to allow for personal chaos—free will inside a predestined script.

In that sense, aspects of Disneyland resemble a seventeenth-century pilgrim’s progress, Calvinist entertainment. Indeed, cities with scripted spaces are, by themselves, nothing new. Baroque cities were scripted, as were the ritual spaces in Mayan cities—or even the Vatican, or Mecca. Certainly today, any space where the audience is a central character—where the navigated story dominates—bears an uncanny resemblance to L.A., for example, or a theme park city, or even European cities during tourist season.

My anti-tours are scripted. You spend the afternoon finding what no longer exists; or traces of bad planning, of canceled plans, of old roads, orchards, movie locations. If an entrance and exit are assigned, if the walking

narrative is emphasized (even in landscape design), if illusionism is essential to the trip, then the parallels operate in much the same way, even in the places that no longer exist.

Then there are simulated copies as scripted, from John Soane's museum to the Museum of Jurassic Technology in Los Angeles, where the Baroque designs of Athanasius Kircher are rebuilt, and spun inside a labyrinthine scripted space, where you are invited to get lost.

Borrowings take on the same haphazard quality that the designs do. In popcorn palaces of the twenties and Mediterranean-style malls of the nineties, elements from Baroque domes were transplanted, or misplanted, in splendid garishness: plaster phantasmagoria, alongside Egyptiana, mummies guarding movie exits, and gargoyles with glowing red eyes. The Burlington Arcade in London (1829) was built again on Lake Street in Pasadena (1980), in miniaturized scale. In how many cities, from Mexico to western Europe, are nineteenth-century hotels for the ruling class now restaurants for the tourists?

Illusionistic scripted spaces leave a very quirky historical record. However, in this chapter, I must limit myself to problems that are unique to such spaces at the end of the twentieth century. And that includes problems in architectural criticism.

## The Empty Frame

Photos fail to capture the journey taken in a scripted space. For example, early photography in the nineteenth century often made a street appear to be empty because the pedestrians moved too fast for the camera to freeze them. Architectural photography still borrows heavily from early Romantic landscape painting; it tends to decontextualize, for a world where context is practically everything. Since the nineties, this problem, and related issues inherited from postmodern architectural theory direct criticism beyond the postmodern, toward "the industrialization of desire."<sup>1</sup>

## Animation

In honor of the integration of cinema into heavy industry (from war to business), I would like to concentrate on the paradigm of *animation* instead of "finished" architecture. For decades now, architects have built through animation CG programs as much as on blueprints. And in animation, whether on the com-

puter or on a shopping street, *movement is structure* to a degree that is staggering.

## Immersion

When I interview specialists and audience alike, often I am told that malls feel like computer games. Why is that? Both spaces are designed around a narrative where the viewer or the shopper is the central character, in an immersive environment built for *navigation* (walk-through that implies freedom of choice, but actually is severely monitored or limited). All traditional architectural features are subsumed beneath this walk-through narrative. That includes the gimmickry itself, so often rather cheesy, but intentionally so. The pseudo-marble is supposed to look false, as upside down as a balloon in a parade, or a movie set dropped from the top of a building. The *gaucherie* often is intentional, again what designers in the casino business call “junking it up”: banal murals next to expensive wood trim.

It is an aestheticized experience that tries to look like the imaginary brought in by its consumers. It should look homey, but always a bit artificial (safely rebuilt, not natural). It should look well appointed, like brilliant packaging, but not superior.

After postmodernism: Since 1989, in stages, postmodernism has drifted away. We see now that the impulse turned out as conservative as it did progressive. Right-wing cable news exploited deconstruction to bury the liberals, a pox on all your houses. It is a standard trick. Only the scale of it is terrorizing. Even war now relies on the industrialization of desire, through media and consumer space, much the way locomotives industrialized time and travel a century ago; but even more the way Baroque princes worked with special effects.

## The Panic

As a result of a widening of the classes during this electronic industrial age, these scripted spaces have mutated oddly after 1970, toward a culture of control. This was a standard element in modernist planning, evident in late modernist plazas (sheer walls, glass curtain or otherwise). In the nineties, this surveillance was given a happier face, with miniaturized cameras rather than gangways (layered, with isolated entryways). We were already becoming a culture at home with surveillance. We already expected it, assumed that the classes must be pre-separated much more, like packets in a baking kit.

However, behind this soothing isolation was a panic about scarcity and that the economy may turn these spaces into neo-Victorian nightmares.

However, in consumer-built cities, there may be a counter dialectic at work. The trend toward tourist pedestrian marketing in big cities, from Piccadilly to Times Square to CityWalk, may produce precisely the kind of “democratic ways” that accompanied class warfare in the genteel cities of the nineteenth century (circa 1850); and made them nonexclusive for a time. The vast immigration worldwide since 1970 may surprise us, deliver something less hierarchical to scripted spaces. But they may reinforce precisely the class rigidity that is emerging.

Nevertheless, scripted spaces are always a business powder keg. They may blow in some way over the next generation, as the classism and panic, along with the pressure to build bigger crowds of all classes, runs head-on into each other. Not only are the casinos continually unfinished; the consumer-built cities may never be finished, once the social pressures boil over; and the fiscal shortages keep growing. We are witnessing the first act in a drama that has barely begun.

No matter how conscientiously the planners try to hide clocks, to stop class politics, they often fail to prevent the crisis from growing. In the postwar United States, those who bought and those who sold the suburbs assumed that shopping malls by a freeway exit would stop “history,” no more encroachment of Depression-type poverty into the suburb. How did that work out? Frankly not well at all in many cases. The mix of slums and gridlock in postwar suburbs has reached epic proportions in the past decade.

There is no way to stop aging in cities. Every forty years, the city matures whether there are clocks or not. Crime in Las Vegas is sharply on the rise, despite all the glamour of the mega-casinos. The glitz and spectacle is merely the first stage in the building of any city. No wonder scripted spaces built centuries ago, like Venice, seem oddly prescient today. Prerevolutionary Paris, hidden behind the new Louvre and the new Marais, is warning us, and, at the same time, soothing us.

### **Labyrinths: Program Design Reception (1997)**

Let us clarify what this term *labyrinth* opens up for  $f/x$  debate. It suggests that all “virtual” systems are cybernetic—about power and relinquishing control, about feedback systems.

What sites does this bring to mind? The Vatican? Casinos? Computer games? The Web? Shopping malls?

Are there movies about this subject? *Videodrome*? *The Net*? *Brazil*? *2001: Independence Day*? *Twelve Monkeys*? *The Game*? *Blade Runner*? Perhaps a few hundred more?

What does this narrative say to us when we are active characters? What does it say to us when we are watching a flat screen? How does this influence the way all spaces must be designed in the future?

A few philosophical issues to remember: We cannot ever rely simply on our personal relationship to a movie or scripted space. That is only a third element within the whole: program; design; reception. We must take each step on its own, and see the problem as ideological (program); epistemological (script); and ontological (reception). In other words, at the level of the program, the political use of ideology is fundamental, and must be studied that way (how political interest is manifested within the codes generated to protect those at the top, or condemn their perceived enemies). At the level of the script, there is a code of how knowledge is supposed to be set up, how the branches and winding paths reveal a knowledge. And on the level of reception, the virtual is always relative; there is always a crisis about real/unreal, a suture between the two that makes the story exciting. The more “realistic” the illusion, the more the ontological game must deal with fakery (obvious example: the dinosaurs in *Jurassic Park*).

At the heart of these philosophical issues is a sense of codes themselves, how they are hidden, how they are turned into real space, how they are hinted at cautiously, and whether there is ever a codified version that applies as the ideal form of reception (there isn't).

So this is a fiction that is navigated by the audience as a fact of sorts. It is unnaturally (and therefore “realistic”) vivid somehow, tangible (*haptic*, an old term from the 1930s that is being revived: sensory). One begins to see how the heritage of postmodern theory is of some use here, to clarify how many ways a code can be warped or broken, and yet be serviceable.

The ontological gimmickry harkens back to the Baroque era surely, an easy place to settle (*trompe l'oeil*, *anamorphosis*). But we must remember how subtle the levels of simulation must become, how the slippage of the code of the real is, in itself, the conflict of the story (where the power “trip” takes place). Consider the issue this way: philosophically speaking, an audience goes from confusion to the realization that there is a program greater than themselves. They see the hints of it physically, but only the reflection of the greater process—

experience a dual reality (Neoplatonism, etc.). This is rather charming, to sense the gimmick, while glamorizing the machinery that gave it to you. We are expected to worship the apparatus, while pretending to subvert the script. So the epistemology is tainted by the hidden ideology; and given momentum by the ontological journey itself. We learn a system (via movies or the Net) that seems innocent on one level, but is built into a corporate model that is very political indeed. Part of our revenge against that system is the knowledge that it is filled with gimmicks. However, many of these gimmicks are part of the script itself, and suit the program very well. So we imagine that our ontological awareness is a weapon against ideology, but in the end, we accept the epistemology as a truth (a democratizing force), even a game about the truth.

So we can use the terms *ideology*, *epistemology* and *ontology*, but only if we apply them very solidly to real events, real practices, and never privilege our reception to the point where we think we are psychic enough to ontologically know what goes on in a corporate boardroom, or how precisely a scripted space hides, manipulates. And above all—why such places look as they do. We can guess who benefits, and what is expected. But the ultimate function is what the collective and singular imaginary may actually be for the audience or the players. We cannot even presume that we know ourselves precisely all that we experience within an “interactive” or scripted space.

## NOTE, 2023

This article first appeared in 1998. The term scripted spaces has since gone into rather expanded use; also by me. (See the “2023 Afterward.”)

## 18. Outside the Labyrinth: Architainment in Las Vegas

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Within the past decade, one vast but brief era in global culture simply vanished—1989–1993—and a new stage replaced it. The transformation took less than ten years. Trillions of dollars changed hands. But oddly enough, much of it went unnoticed. Media simply whitewashed its impact, while it remade thousands of cultural destinations through the nineties, until 2001: museums; theme parks; cities old and new; shopping malls; casinos; the Internet; computer games; miniaturized data erasures and other new cycles of collective forgetting; globalized broadcast feudalism; surveillance as mass entertainment; and more.

How eerie: Did all this pass in our sleep? Since I write so often about Los Angeles and Las Vegas, I have been forced to watch the process up close. You might say both cities have sped along on parallel tracks, but that would oversimplify their relationship to each other. Las Vegas has often been called a colony of Los Angeles,<sup>1</sup> even in the mercantilist sense, similar to the seventeenth century. Los Angeles came at the end of many colonizing ventures of Nevada: the railroads, mining industries, and now tourism.

This was a colonial relationship where resources were harvested. But it also anticipates “warlord economies” built by globalization—by “predatory transnational companies with no allegiance to a given country.”<sup>2</sup> Thus, after Americans invaded,<sup>3</sup> global kleptocrats unsuccessfully replaced traditional elites in Afghanistan.<sup>4</sup> Now in 2003, under the shadow of America’s war on terrorism, global entertainment is still adapting. The plantation economy in casinos shifted into a new stage—more gambling operations shifting into cities, new ways to erase memory, identity, sense of place. After 2001, Vegas special effects fell under the embrace of homeland rule (Bushism). Various of the bombers for 9/11 holidayed in Vegas! We must avoid too much easy melodrama. There is enough from day to day on Fox News.

As pundits often say, we live in a civilization increasingly without much of an inner life anyway, only the right medication.<sup>5</sup> That is a familiar trope. Since the late nineties, there were enough special-effects movies about the matrix stealing your memory; taking your identity; about suicide bombings and apocalyptic, endless wars. Better to demystify wherever possible—no nostalgia, no noir glamour. Simply put: many global entertainment industries happen to be head-quartered in Las Vegas and Los Angeles. And these probably contain the most mature variations of special effects in the world.

However, the Vegas nineties are over. No major casinos are in the planning stages. A certain caution has taken over, in Vegas terms. In fact, my research indicates that Vegas futurologists were already sensing the end as early as March 2001, when Steve Wynn's Mirage Corporation was bought out by MGM. They sensed an airline and investment crisis six months before 9/11. In fact, Las Vegas is a barometric culture, the home of mutable architecture, and mutable branding. When it implodes a building, it also erases memory on a scale that seems unrivaled. All casinos will peel down over the next few years, and remutate. Within twenty years, many, in fact, will be gone, or almost unrecognizable. Las Vegas is a laboratory for special effects as erasure.

In February 2003, spokesmen revealed how casinos were bracing for war.<sup>6</sup> They would “take a page out of the playbook” used during the Gulf War and after 9/11. They would “redouble” the speed of marketing toward “short feeder markets within three hours or less.” They discount for “drive-ins” from Southern California and Arizona. After 9/11, people saw Las Vegas “as a safe destination,” “to escape, get away.”

But “you have to be careful not to market too soon,” a spokesman from Mirage explained. “The public has historically been interested in escapes from what is going on in the world and, for millions, Las Vegas will still serve that purpose. We just need to be sensitive to the timing.”

In the meantime, Zumanity, the new \$15 million “erotic cabaret” at Bellagio, is set to travel to New York as well.<sup>7</sup> Stratosphere has added a stripper and lapdancer water volleyball tournament, as more spice for its Wild Nights Pool Party, running through August: “the girls hanging out with the regular Joes.”<sup>8</sup> At Treasure Island lagoon, the British navy and buccaneers are being docked, to be replaced in October by “half clad sirens swinging from the rigging and sashaying down the plank.”<sup>9</sup> The Sapphire is adding gyrating women to its large-screen TV showings of Lakers basketball. At the Tabu Lounge in the MGM Grand, tequila shots are now served between bare breasts. This is hardly new; but surely a trend. Mayor Goodman explains: “the new brand we’re creat-

ing is one of freedom based on sensuality ... The bottom line is that people can come, go to the brink of whatever's legal without having anyone looking over their shoulder."<sup>10</sup> That includes children. The children-friendly Vegas of 1992 was mostly a failure. Parents do not like seeing their children right after they lose the mortgage money. What's more, when trauma sets in nationally, casinos return to reliable standbys. A local reporter added: "What casinos realized was that they needed the kind of shows that send everybody out drunk and excited and in a wild frenzy to gamble."<sup>11</sup> Anxiety to gamble fits well with political anxieties.

Similarly, after the Gulf War, during a massive recession, casino revenues grew rapidly, even peaked in 1995. Casinos are indeed like the canary in the coal mine. But in a mining state, these canaries have learned the history of forgetting.

So to begin, I review the tools I can bring to bear on this Vegas of 2003.

## Scripted Spaces

Imagine walking through a sequence of rooms or alleys. The space between has been scripted for you; that is, a street or interior where the spectator imagines herself as a central character in an imaginary story. Presumably the walker experiences free will, though often that is an illusion, and the spectator knows it. Nevertheless, you are willing to bow to the authority of the feedback program.

Since 1955, the number of scripted spaces in the developed consumer world has multiplied geometrically. This spawning process was pioneered in both southern California and Las Vegas. Disneyland opened on the Fourth of July in 1955, while in April of the same year, five casinos opened on the Vegas Strip.

You might call Disneyland and Vegas the Janus twins: Las Vegas was dubbed the "Disneyland for adults;"<sup>12</sup> Los Angeles the "Las Vegas for families."<sup>13</sup> Both converted resort destinations into suburbs. Anaheim had been cheap orchard land before Disney's team installed the great berm there. The Strip was not even a suburb in 1941, simply a blank just outside city limits, a neck of desert on the way to the tiny McCarron Airport. But in ten years, casinos were stuck out on the Strip, mostly to avoid city taxes and city police, creating a job base that supported new suburbs.

Both struggled to lure Angelinos by car. Disneyland linked to the new freeway coming from Los Angeles. The Strip literally ran on Highway 91,<sup>14</sup> a two-lane road from LA. Like many investors across the U.S., they were trying to

capitalize on the federal interstate highway plan of 1953. In ten years, billions of government dollars brought a twenty-thousand-mile grid of interlocking freeways from one coast to the other. L.A. became the hub on the Pacific. Both Disney and casino owners hoped that caravans from southern California could now drive hundreds of miles for a day's pleasure.

Both projects turned into job pools that supported new suburbs. Both "Los Angelized" the surrounding metropolitan areas.<sup>15</sup> Of course, newly minted suburbs were transforming rural towns across the country in 1955, particularly in the San Fernando Valley of Los Angeles. But there were dozens of symbiotic forces at work—nationally and internationally. The sum of these started the race for capital that led to the globalized ("warlord") economy by 2000. For example, the television industry came of age by 1955, shifting toward film stock, moving offices from New York to L.A., finding European links; as did the airline industry, the credit card industry, the Holiday Inn chain, McDonald's, the dealer system for art in New York; and dozens of new ad agencies only a taxi ride away.

Viennese émigré Victor Gruen designed the first enclosed shopping mall in Minneapolis in 1956. Throughout the country, at the crossing of freeways, thousands of new shopping centers were added within a few years. This was indeed the first stage toward globalization—the consumer expansion around the automobile. By 1980, the era of consumer "autopia" ended, but by then, it had linked across five continents, and was in the process of globalizing production itself.

By 1955, the Korean War had been settled,<sup>16</sup> but the hunger to keep the American economy pumped up continued. Like an athlete on steroids, the U.S. had to remain on constant war alert for another fifty years. With what even Eisenhower called—with grave concern—"the military-industrial complex" came massive investments in miniaturizing energy for missiles, for space flights; and to miniaturize Computers and radios and design advanced telematic hookups by satellite. All of these, ironically enough, fed the globalizing consumer investments, from the J.S. to the newly energized western Europe to Japan on the edge of Vietnamese overflow of capital. Even the rudiments of the Internet came out of American defense spending (ARPANET, 1965). Indeed the Cold War turned out to be a laboratory for electronic civilization, on behalf of NATO in particular.

But along with the computer, came the NATO economy, dubbed the "Free World" by Euro-American investors across continents. These investors supported a rapidly growing pool for global tourism. That pool finally lured

millions of visitors to the U.S., in stages after the fifties. Inevitably, Las Vegas specialized in fast weekends for high rollers across five continents.

The marketing within this flood relied on global English—nine hundred words for TV, petrodollars, MTV, computers, NATO, even diplomacy at the EU. This business dialect spoke for the electronic consumer. Year by year, the percentage of overall profit from global English movies shrank in the U.S., as it grew in Europe and Asia. Increasingly, investments for these products came from three continents. And for a time, it seemed that Mideast oil and Japanese export power could rival the NATO entertainment juggernaut. And by the 1980s, a global cultural transformation was essentially in place from western Europe all the way to Japan. It would shift many times, but mostly, all that was needed next was the fall of communism to open the flood gates of global investment. The military-industrial capital would diminish while the entertainment capital would grow, until at last, all forms of heavy industry shared the same software as the movies, ad agencies, mall architects.

After the Berlin Wall came down, electronic consumer culture became the global brand for triumphal capitalism, with Las Vegas as one of its mythic headquarters. High rollers came as much from Europe and east Asia as from the U.S. Las Vegas joined NATO-fied entertainment—as did L.A., of course. German companies funneled hundreds of millions for filmmaking in southern California. French investors bought Universal Studios—from Canadians, who bought it from the Japanese. It was mercantilism in Web time.

That corrosive speed, with barely any legal oversight, has brought on war-lord systems to fill the gaps, hordes without borders. A data flux has dissolved many institutional controls within the nation-state. Data rejects nationality. It erases boundaries blindly, a free-for-all, these feudal stopgaps (Electronic Feudalism) leading to grim localized wars, narco-capitalism, globalized immigration; transnational eco-blocs; the L.A. up-rising in 1992; Russian cities abandoned to mafiosi. But this erosion with a cybernetic smile has its preferred “look”: gaudy, immersive effects as an Electronic Baroque. Since 1989 in particular, “it” has installed “its” brands across the world: narrated themed architecture. With the Electronic Baroque, cities, movies, museums and “historic” city centers begin to look like each other. As a result, entertainment has been homogenized as never before. Cultural censorship is more complete than at any time since the Counter-Reformation. I imagine Baroque popes and princes dedicating shopping malls, with all the trimmings.

The signature of the Electronic Baroque is the occluded, immersive, scripted space, modeled at first on shopping malls, casinos, theme parks.

After 1989 in particular, these spaces went beyond their enclosures, to enter the cityscapes of European cities themselves, or as Vegas copies of Europe—or in Singapore, Tokyo. Neo Baroque effects grew more popular in East Asia. Even at the origins of the Baroque, to accommodate globalized tourism, European town centers have been rehabbed for a catholicity unknown since the pilgrimages of the Middle Ages; or since the European world's fairs from 1851 to 1900. But nowhere have these experiments in the Electronic Baroque been fiercer than in Las Vegas and Los Angeles. These two cities become our laboratory (not much of a compliment, more like the victim of a plague that people want to catch).

From 1989 to 1993, it looked very doleful. Corporate downsizing seemed to be spreading to entire countries and cities as well. Southern California went through its worst downturn since the 1930s. One biblical affliction followed another: real estate depression; colossal scandals in policing and public education; the largest urban disturbance of the era in the United States; the most expensive earthquake in American history; the worst fires in half a century; more whites leaving than arriving for the first time in its history.

By contrast, Las Vegas had been preparing since the late eighties. By 1988, planners in the gaming industry knew that over forty American states would legalize gambling. There was no time to lose. A new resort image had to be put in place. Vegas had been in a financial slump. However, in 1989, just as the Wall went down, that started to turn around. Entrepreneur Steve Wynn opened the Mirage Hotel, costing nearly a billion dollars—including a working volcano and an upscale variation of gaudy, new to Vegas. The Mirage became the flagship for the Baroque on the Strip. It inspired the flourish of new “pedestrian friendly” venues in 1992–1996—Caesar’s Forum, the new MGM Grand, Luxor, Treasure Island, New York/New York. Tens of millions of new tourists were added. By 1997, 52 percent of all Vegas revenues came from the resorts themselves, rather than from gambling.

In 1998, I told Jon Jerde, the architect of Wynn’s even grander Bellagio Hotel, that he was a master of the Electronic Baroque. Then Jerde told Wynn, who officially announced to the *New York Times* that indeed, the new Vegas was Baroque; and that Jerde was its Bernini (Jerde preferred to think of himself as its Borromini).<sup>17</sup> Thus, the newspaper of record officially declared the Baroque era underway.

But that era was already ending in Vegas before 9/11; even while the recovery in L.A.—1995—kept some rolling for a while after: in media mega-mergers, e-commerce, a real estate boom that began on the west side; and the Getty as

its new fussy escorial. The scale of entertainment had finally—and institutionally—gone global, even in Las Vegas, and could rival the piazzas of the Baroque.

Then, signals of a shift: In the spring of 2000, Steve Wynn agreed to sell all his casino interests to the MGM Group (even much of his “fabled” art collection). The last of the Medici-style freewheelers would no longer dominate what comes next. And that ran parallel to the decline of Silicon Valley as well. The presumed “anarchy” of the early Internet—before 1996—steadily hardened, spamified.

The industrialization of desire that began in 1955–1956 had matured at last. This primitive accumulation of entertainment capital took nearly fifty years. It finally reached an institutional takeoff after 1993, and showed its fangs particularly after 2000. And now the Electronic Baroque assumes an imperial demeanor that rivals the Roman Empire—but without an emperor (one hopes), perhaps even without a Rome. The privatized mall was now increasingly the public street, certainly in Los Angeles, with the growth of outdoor-themed shopping spaces like the Third Street Promenade, CityWalk, Old Pasadena, Media-City Burbank, the Grove. And in Las Vegas as well, with the lowest ratio of public parks and space per capita of any major city in the U.S.

On the Strip (officially renamed Las Vegas Boulevard), many sidewalks adjoining casinos were sold to business. Unlike downtown Vegas, there was essentially no public life in the old industrial urban sense. Of course, a new Guggenheim addition in Vegas was designed (planned by Rem Koolhaas); then was defunded in 2003. This museum annex was supposed to rival New York or Europe. Instead, it only miniaturized them further.

Presumably museums—as well as universities—were being rescripted to serve as indoor malls. They were to commemorate the cities that were gone, like a cultural casino. After all, during the boom, museum attendance rose.

Museums would map the transition toward this new Baroque. The new Guggenheim in Las Vegas was part of a franchise that has stopped growing in the U.S. They joined Guggenheims in Bilbao, Venice, Paris, Berlin (now closed) and Abu Dhabi. Very likely, shows will look more like Baroque *wunderkammers* than they used to. They will overlap and sprawl more, like browsers and search engines. The pressures to make shows monumentalize new global power relations will be intense, and with glossier facades and less within, like the Electronic Baroque: gaudy outside, conservative at its core.

What will the poetics of these monuments be, at gaudier museums, at Vegas? And what erasures, evasions—what history of forgetting—will these monuments bring?

## Happy Imprisonment: Slot Machines and the Labyrinth Effect

A visitor writes about getting lost in the Caesar's Palace casino—every time he goes. But it is fun getting lost, “a challenge.” Also, you always find your way out eventually “Wish me luck for the next Xtreme Adventure at Caesar's I attempt to take.”<sup>18</sup>

This is Happy Imprisonment, a labyrinth effect, standard issue at most casinos. You have infinite choice, but seemingly no way out. It is essential as well in mega-malls, even in video games, and on the Internet. With each new generation of micro-software, labyrinths become even more “ergonomic.” Entrances and exits become even more thrillingly inscrutable, with good digital sound, slot machines humming blissfully, as if you were inside a whale. Perhaps this reflects our growing social and economic inequality.

Slot machines earn upwards of 70 percent of all gaming profits, and are possibly the most multiplied use of digital software in the entire entertainment economy.<sup>19</sup> Apparently, the microchips set the winners, while sending out feedback to many sources at once. They have a statistical control package<sup>20</sup> for casino owners to make a count, with Palm Pilots for employees on the floor, wireless tracking of financial records for the desk, polling for the slot club, and for many casinos at once. Since many casino owners expected a slowdown by 2002, slots needed “killer software in an era of slower growth.”<sup>21</sup> That meant more reward action games built in, a trend pioneered by Odyssey slots in the early nineties—a “game within a game” bonus features<sup>22</sup> carefully hidden; and “pick-a-game” (multi-game) choices—up to twelve choices, from keno to poker to various slot games—all on a single machine, like a remote-control programmer for gamblers.

Since the mid-nineties, video-based slots have taken over. Video backgrounds have become far more elaborate. Odyssey<sup>23</sup> led the pack in fancy backgrounds; then Odyssey was purchased by the world's largest slot maker, International Game Technology (IGT). Slots increasingly copy movie special effects, television laugh meters and applause, and aureoles that resemble the facades of casinos. They have animated pirate raids, showboats, magic wands, palm readers, fortune-tellers, even “realistic” showgirls giving you the come

on.<sup>24</sup> But for industry insiders, the biggest change in slots came in 1993, when IGT introduced the very successful “Wheel of Fortune,” based on the TV quiz show. Now a third of slot machines require media licensing, particularly quiz shows (Regis Philbin and Alex Trebek are slot stars), or flashy movie blockbusters or cartoon favorites, from Popeye to the Hulk, Indiana Jones, Spider-Man.<sup>25</sup>

TV memorabilia are blinking everywhere on the slot floor. New laws prohibit children from watching TV on slot machines. In 2001, Arnold Schwarzenegger sued IGT for \$20 million, after they apparently copied his voice and likeness for their Terminator game.<sup>26</sup> Meanwhile, IGT had a record first quarter in 2003, profits up over 20 percent, even while Vegas weakened. It is an inverse system; when gambling slows, casinos invest more in slots for “snowbirds”<sup>27</sup> and “drive-ins.” But when casino profits rise, slot sales may dampen in Nevada, but improve for casinos in California,<sup>28</sup> or even in Poland. Still, on average, in Nevada alone, gamblers lose upwards of \$500 million a month.<sup>29</sup> And at Indian casinos nationwide, the monthly profits range at nearly \$5 million.<sup>30</sup>

Contributing to this massive growth, computer game designers, like Al Acron, the codeveloper of *Pong*, have worked regularly for slot companies since the eighties.<sup>31</sup> He and others have evolved an interactive story grammar for slots.<sup>32</sup> First, visuals on the screen highlight the jackpot. Then the player senses an internal design—the “math” or payback. But something in the design of this “math” still has to imply “the illusion of luck,” “that there is a chance event occurring.” As casino patriarch Benny Simon used to say: “Give a gambler a good excuse, they’ll thank you for doing that.”<sup>33</sup>

But most of all, slot machines are the ultimate special-effect toy, very much a composite of the past three hundred years. They were born in the same year as cinema, 1895. Their inventor, Charlie Fey of San Francisco, was very much a late-Baroque instrument maker. Their inner workings resemble old multi-task calculators, similar to gizmos from Leibniz’s era (and imagined by Leibniz himself); or arithmometers (1680–1830). Or Baroque automatons and clock-works—levers and cams.

And they ushered in the industrial era for entertainment, were mass produced by ever larger companies after 1906. Fey’s machines could just as easily dispense a cigar as money. In fact, early food dispensers were called slot machines. But these slots delivered the indeterminate. You were supposed to *rarely* get the cigar.<sup>34</sup> They turned *risk* into a consumer thrill—a labyrinth.

Then they became the most integrated software network in entertainment, practically a metonym for the globalized electronic economy. They stand in for cybernetic controls across many markets at once. Today computerized full-service tracking services perform like a bot for the house: tracking players, slots, tables, revenue sources, demographics, doing the taxes, providing “up to the minute WIN reporting,” player photos, electronic signature identification, messages for players on screens in their hotel rooms. And for the trackers on the casino floor, there are portable handheld tracking devices; for their bosses, multiple casino access.<sup>35</sup> In 2002, MGM started its online casino,<sup>36</sup> to compete with hundreds of others,<sup>37</sup> led by IGT, Anchor, Shuffle Master, Viad.<sup>38</sup>

Slots are indeed a software chimera, the tail of a serpent attached to the head of a lion. Each slot combines business graphics with the Internet, cinematic memory, remote-control systems—and banking, franchise capitalism at your fingertips. The chimerical screen merges horizontally all the industries that pay for the play on the Strip, as well as casinos across the United States. Even many Indian casinos from Cherokee, North Carolina to Deadwood, South Dakota,<sup>39</sup> however far off the main road, are wired to global electronic mailboxes, as well as Internet casinos spamming the Web. In the era of the Palm Pilot, as the computer monitor spawns in miniature, as genetic technology spawns, the monuments will shrink. Eventually they may be able to inject a slot machine under your skin.

## Immersion: Shrinking into the Movie

We await the sea battle at Buccaneer Island in front of Treasure Island, for the pirates to sink the British frigate one more time. The entire site has been designed around a scenario, like a nineteenth-century panorama<sup>40</sup> of a great sea battle, or even a scripted walk through the Alps. The “story” centers around a mythical Portuguese island in the Caribbean. The island is conquered by the Spanish, then falls to pirates. “That way,” explained designer Charles White, we could rationalize a lot of Middle Eastern attitude and Moroccan influence.”

That story twist might please the Arab high rollers (before 9/11, not likely today), catch another submarket. But most of all, plot points in the back story, like back story in movie scripts helped designers fill in atmospheric details. Pieces of imaginary shipwrecks turn into pirate lairs. The stern of a pirate wreck clings to the hillside as if from a giant packhorse.

Bellagio had quite a back story, very much like a movie, about a fictional Italian immigrant, the son of chefs, who settles in Las Vegas earlier in the century, then gradually builds a fantasy version of his place of birth, even starts collecting Impressionist art. Bellagio is imagined, therefore, as eighty years old; it simulates a prehistory to a Las Vegas that never was. The integration of cinema and scripted spaces is complete, only in this case, you the spectator are inside the movie—in the masque. The foreground disappears. You disappear, as if you were a miniature yourself.

## Condensed Cities

Through Baroque devices (*trompe l'oeil*, accelerated perspective, anamorphosis, multiple vanishing points), cities can be shrunk to the scale of a hundred acres or less. Bally's Paris is less than twenty acres, across the street from Lake Como, down the block from Venice (the Venetian), near Rome and New York. Obviously, these are "condensed" spaces, but not simply because the Chrysler Building is foreshortened against the Empire State Building. They are condensed like a cross between Hitchcock and PR maestro Edward Bernays (Freuds nephew). Overlapping narratives distract each other within the same space, into a comforting vertigo.

During the short boom of 1999, there were rumors that a Vegas/Vegas hotel was to be built. The entire Strip would be condensed to  $\frac{3}{4}$  scale, like Disneyland's Main Street at  $\frac{7}{8}$  scale; or to copy the very popular Universal CityWalk, that five years earlier had launched the next stage of the Electronic Baroque in L.A. This Vegas/Vegas would resemble movie sets built for Hollywood studios back in the twenties. Even today, the five-cities-in-one Paramount streets really explode with Baroque trickery (*trompe l'oeil*, etc.). But the movie camera subsumes all that visual noise. It digitally converts all Baroque clatter into a smooth, intriguing shot. Baroque Artifice is switched on—as industrial panorama. However, both illusions—1650 versus 2003—achieve a similar result in one respect. They shrink-wrap a street. They both condense in order to make the story more legible. Either way, they help us become tourists inside our own city. Spatial illusion jumps from real walls to our digital screens. This poetics of archiminiaturization remains crucial to the Electronic Baroque. It hardly matters what the screen turns into.

## Architainment

That is the term used in Vegas to describe the new pedestrian-friendly look along the Strip. Eye candy on the facades, “a radioactive Manhattan”<sup>41</sup> replaced the old neon. Very systematically, sixties logo-like iconography at the Stardust, the Dunes, the Aladdin was imploded.<sup>42</sup> By 1997, their neon modernism was practically gone, along with seedy memories of lounge acts, icy showgirls, and gangsters behind the scene. Corporate Vegas was marketed more as a “family resort destination.” It became the corporate headquarters for gaming around the world, with massive alliances between cinema, retail and tourism on a scale never possible before the nineties. Architainment was a coming-of-age, a grammar for a new political civilization.

We are witnessing monument building, inside scripted spaces that certainly remind us of the Baroque, even down to the fireworks and follies. But what is the paradox in that sort of monument—in Vegas architainment? Most monuments were designed specifically to hide the corruptions of their age. Indeed, we face a bumper crop of corruptions to work on over the next decade.

## Monumental Miniatures

The condensed city in Vegas is mechanized feedback with controls, a slot machine opened out into a nineteenth-century panorama. But the script must somehow give this control a certain innocence. Architainment may rigidly set the path for gamblers, but the excuse is that this path operates like a movie. You obey like an audience while you walk through. The views echo camera angles you’ve seen in movies, a pan of the city during the opening credits. Then the shell of the building becomes a puzzle, a trompe l’oeil beneath the false skyline of NewYork/New York. The faux skyline turns out to be a huge skull supporting antlers, a comic unity, a world under control, like a Fleischer cartoon of Manhattan. The casino inside this skull turns into another outdoors, into streets, not rooms—a control within a control. Manhattan is shrunken down for you—niche after niche—abbreviated, accessible; and always air-cooled. You walk through Greenwich Village on a hot (now air-conditioned) day fifty years ago. You make your choice, a happy prisoner.

What do condensed cities reveal about franchise capitalism in the Electronic Baroque era? They mix elements from practically all the businesses who share in this Baroque-tourism, cinema, and the fixed perspectives provided by

the automobile. New York/New York is a composite of how it might feel inside a car on the Staten Island Ferry, as the skyline pulls in; or perhaps a road trip taking an hour or so on a Sunday in Manhattan. We walk through what the display across a windshield might show us.

What do condensed cities say about the context of urban life today? They monumentalize collective misremembering—the death of cities as we have known them, much the way Disneyland Main Street in 1955 helped guests remember that small towns were dying. It pays homage to dying species as well, oddly poignant, like the jungle shop for extinct animals inside the MGM Grand, with its animatronic replacements for animals that will soon be irreplaceable. The city becomes a petting zoo, a backdrop for photographs; or a botanical garden for a landscape of rare plants. It is a cheerful funeral, if possible out of scale, foreshortened to add grandeur. The Eiffel Tower is so close to the street, it seems to bump you off the curb, as does the Empire State Chrysler Building. The vertigo of the skyscraper is enhanced, even if the buildings are half scale.

Wherever possible, no matter how condensed, Vegas monuments still have to suggest scale; like Baroque theaters, they use forced perspective: a condensed but massive Eiffel Tower in Las Vegas, or Statue of Liberty. Vegas cities are like epic beach resorts, not a Japanese contemplative garden (though Japanese theme parks certainly rival those in the US.). The Eiffel Tower will loom directly against the street, as does the Statue of Liberty. So too, Lake Como (nine acres at Bellagio) is 4809 feet from the pirate village along Treasure Island. Distances get rubbery, foreshortened, to look even more massive. The Coke bottle that dominates the Coca-Cola sim-museum hugs the street like a vendor hawking soda pop at a county fair. I am reminded of theatrical machines that relied on foreshortening in seventeenth-century Europe, of the vast tradition of forced perspective and optical tricks that peaked essentially with the Baroque.

Instead of the industrial nation-state represented by Manhattan in 1920, the nineties gloried in retail, franchise capitalism, where entertainment and investment merged as real estate, urban planning, global ad campaigns, global licensing. The Vegas of the Steve Wynn era was imperial Electronic Baroque—the city-state, with baronial palaces with stylized moats and drawbridges. The public approached only with permission.

There was a profound sense in all Vegas promotion that Vegas condensed cities were palace jewels. They were Versailles for the multitude. But let us never imagine that palaces were democratic sites. I do not care deeply whether the

old cities return, much as I love them, and grew up in slummy New York. I am more concerned that we lose our urban *political* heritage. As a culture, we are being asked to freely dispose of our First and Second Amendment rights for a good cup of latte, and a chance to walk past architainment. To repeat for emphasis—these are ducal domains, cities for public ritual, but not for “democratic ways,” the old expression from Louis Sullivan and the late nineteenth century.

And these ergonomically restricted spaces will grow more comfortably restricted as the decades wear on. But ours is a much more class-driven culture. Steadily, institutions like genteel casinos are emerging to give us rituals to celebrate the new restrictions. Do not be fooled by the mix of classes and races who walk along the Strip. Crowds are not by definition a symbol of democracy. Crowds of that sort used to honor the birthday of the baron as well.

We must not confuse happy imprisonment with political freedom. In the nineties, to shop and gamble freely was now the bulwark of the republic, with monuments like architainment. But monuments are not crimes. They merely announce who is in charge of our public memory.

## **Snow Globes: Collective Misremembering**

Who owns public memory? That became the problem for Tri-M Inc., the initial developer of New York/ New York. In 1996, Tri-M was sued for allegedly infringing upon another design that portrayed yet another version of New York’s skyline. That “other” design was for a New York—themed shopping center’ (never built). It also integrated the Chrysler Building, the Empire State Building, the Statue of Liberty, and the Brooklyn Bridge. A judge had to decide who indeed owned the false memory of New York as a condensed city.

Various litigations dragged on until 2002, along with the legalese. The plaintiff argued that it held the exclusive right to use the Manhattan skyline to express the theme of New York City; at least in the kind of structure for the kind of resort that MGM Grand, Inc., and Primadonna Resorts were building, namely New York/New York. The plaintiff brought action to protect what it perceived to be its intellectual property. In reply, Tri-M argued that this idea belonged to the public domain. I would argue that the plaintiff wanted a piece of the action, particularly the deep pockets of MGM Grand.

Dave Bailey, the expert witness on the Tri-M team, searched for ephemera where New York’s skyline was put on key chains, postcards, T-shirts. He went

back at least sixty years, even to Tom Nast cartoons from the 1870s, to the opening of the Brooklyn Bridge in 1883.

In the end, “a particular kind” of evidence seemed the most convincing. He found a few souvenir snow globes of the New York skyline. The crude plastic skyscrapers inside the snow globes clearly resembled the assortment at New York/New York. “Other telling bits of kitsch included a gaudy ashtray featuring the NYC skyline, and a Statue of Liberty souvenir thermometer.”<sup>43</sup> An intermediary sketch for Tri-M “portrayed” Liberty “as a giant souvenir thermometer.”

The judge threw the copyright claim out of federal court on summary judgment. Then, the Nevada State Court eventually dismissed the “trade secret” on summary judgment as well. The wheels of justice barely turned. Tri-M received two awards for the costs of defending itself. Finally, in 2002, in the midst of countersuits and legal malpractice suits, the plaintiff’s remaining claim, “breach of contract,” was settled. All cases were now closed.

In a sense, New York/ New York was “legally” no longer a condensed Manhattan. Nor was it a movie set (that would have been a different suit altogether). It was essentially a souvenir of the kind that you dropped in your beach bag but now ballooned out into a monument the size of a casino/hotel. It stood in memoriam to tourists not quite remembering which building went where. It was a monument to condensed memorabilia. It was built as a social imaginary of a social imaginary.

Dave Bailey explains (2003):<sup>44</sup>

It was creating a New York people could recognize based on previous New Yorks they had seen. Many of the designers on both sides had never been to New York. Their primary sources were library books and travel guides. From the get-go, they were recuperating the distributed imagery of New York, rather than translating directly from the city itself. The map largely determines the terrain, so designers started directly from preexisting maps.

That’s the way Vegas has to work. It plays on instant recognizability: A lot of people haven’t been to New York, but almost everyone knows its iconic image. It is more important that New York look like the familiar map of the city than the city itself. It presupposes and plays with the touristic sublimation and condensation of the city.

2003: To market the lingering memory of 9/11, billboards in L.A. advertise New York/New York as “Lower Manhattan.”

## 1999: Zones of Unknowing

In 1999, just beyond New York/New York, the visitor entered a zone of unknowing. The sidewalk was as gritty and nondescript as the industrial edge of Puebla, Mexico. These gritty patches are important clues. In Puebla, factories and body shops encircle the Baroque city center, grim re-minders of a colonial tradition still in force. Wealth is shipped away, leaving zones of unknowing next to a glamorous eighteenth-century *zócalo* and Belle Epoque department stores. Vegas is also part of a colonial tradition, the American West, where mining companies and now gaming corporations ship profits out of state, leaving rough patches just beyond the glamour.

Indeed, the grander the illusion, the more dysfunction that it hides. Otherwise, why try so hard? As part of my eccentric research on scripted spaces, I have been walking through (and clicking or sitting through) every special-effects environment I could find, from action “ride” movies to video games, tours of effects houses—or studying the Ringstrasse in Vienna, the *zócalo* Puebla. In each of these, I have spotted zones of unknowing like the rubble along the Vegas Strip. The grit in these lost patches was easier to “read” than the finished product only meters away. The seam indicated where the process was uneven, that despite all the enchantment, this economy was continually in drift. On the surface, back at New York/New York, there is order—the themed space, the sparkling gimmicks. But beneath that order is a neurotic struggle to industrialize desire. After all, what is a gambler’s Impulse? It is a fractionalized turn of the head—so brief, but so essential, that it can be maddening to locate, more a game of chance than gambling itself. With a slot machine at least, the house knows the odds. But to guess which casino will receive the impulse—that problem is subtle enough to be unsettling.<sup>45</sup>

Of course, these seams do not remain for long. By 2000, this zone of unknowing had been cleaned up. But they are a useful reminder, that while the Strip has “lively pedestrian and sidewalk life,”<sup>46</sup> it labors under vast contradictions. In 1995, the sidewalks around Treasure Island were released, quit-claim, to Mirage Corporation. When asked why privatize the sidewalks, Steve Wynn replied: “That’s the way I designed it.”<sup>47</sup> But does that turn walkable Vegas into an iron lung, with oxygen pumping in the casinos? Presumably, just beyond the iron lung, more zones of unknowing threaten at the boundaries: gangsters, bad losers, hunters and gatherers; loose slots. Vegas makes calculated risk exciting.

## Junking it up

The occasional desert rubble—zone of unknowing—is a nostalgic moment for the Strip. It reminds us that Las Vegas was a railroad crosswalk as late as 1930. But it also suggests that zones of unknowing are planned—cheat codes as part of the script, along with fake rubble, to suggest that the casino is an “unfinished object.”

In Reno, for example, I interviewed an architect who works on the Eldorado, a simulation of the Gold Rush panning for loose silver. The eye candy there is gargantuan: huge mining machines in the center; even Bernini’s Triton Fountain oversized in the corner. Gigantism is fundamental to the casino presence. By contrast, near the restaurants, I found a curious schism, even for casino architecture. A very expensive Victorian cherrywood saloon/tearoom was positioned directly alongside one of the most primitive murals I have ever seen. The architect told me that this is a common practice, called “junking up,” to leave patches, to suggest that the casino was not quite finished. They want the guest to assume that the odds are not finished either.

## Noir Naïfs

Thus, despite what seems obvious to the eye, we must not turn into “Noir Naïfs” while researching casinos. A noir, Manichaeian search for evil will obscure more than it reveals. I am a terrible noir naïf when I visit Vegas. For example, as a classic case of naive research, I decided to “look” wrong at the San Remo, to see if I could force a clue about how surveillance operated (to pass the time while a friend went to the bathroom). It seemed easy enough to stand out. That weekend was dominated by hordes of Japanese and Puerto Rican tourists. I tried to stare oddly at the craps table. The lady pit boss, who looked as if she had just overhauled a truck, eyed me strangely. So I kept “standing” out even more, thinking she would cue the security people. Later, I was told that she was simply trying to guess when I would get to the tables. She didn’t think I was counting anything, could see through me in seconds. My fantasies outran any good sense. That can happen so easily. I often warn students: Evil never wears a black hat. It comps you a room, offers you a \$6.95 buffet. It is homespun, very ergonomic, easy-listening, user friendly. It is in the business of never showing its dark side, of giving you a good nine cents on every dime.

In the 1984 Security Manual for Caesar's Palace, staff are advised on how to handle a guest who has tripped on the casino floor. Polaroids must be taken, while the guest is shunted to a cab or an ambulance. "Be courteous, do not argue." However, "do not advise injured guests that the hotel will assume payment of any medical expense." Also, "do not mention insurance or insurance adjusters," or "defects in the premises."<sup>48</sup> This is standard practice at casinos and malls throughout the US. Release just enough information—smile—but never too much. Camouflage crucial details; make these controls almost impossible to spot.

## Immersion

The walk from porte cochère directly into the casino itself is a rather complicated immersion. To englobe the space, ceilings might be interrupted like film cuts by parabolic shapes: curved hanging objects, animatronic trickery; shadow boxes of pirate treasure; overhanging faux shrubbery.

Further in, lighting and ceiling height affect the gambler's mood, the sense of timeless day into night, but also the sense of privacy. More intimate slot machines tend to require lower ceilings. The card tables are higher, more public, with a nostalgic low-hanging light fixture occasionally, harking back to the old sawdust joints many decades ago.

The separations between gaming tables, slot machines and sports gaming are obsessively worked out. Hotel and food breaks are shoehorned (finessed) nearby. Among casino designers, there is ongoing debate as to how theming and gambling should be merged or isolated—first to keep proletarian trade; and second for the more upscale types. Does the main room need to feature the blackjack tables or diminish them?

Every twenty feet or so, there should be quick edits, fixed-point perspectives, moments to stop: flashes of *trompe l'oeil*<sup>49</sup> (expensive copies in unusual materials); video walls; display cases near the ceiling. Fixed-point illusion provides boundaries where needed; yet makes the guest feel like an insider, "in the know."

Thus, casino architects often draw from Baroque and Renaissance *trompe l'oeil*. For example, Jon Jerde's designs for Bellagio, even for the Fremont Experience, refer to sixteenth-century Italian illusionistic architecture.<sup>50</sup> Often, the effects are modeled on Disney imagineering as immersion, particularly the *Pirates of the Caribbean* (designed by Marc Davis in 1964), the point of origin

for theme-park immersive spaces in Orlando as well.<sup>51</sup> Cine immersion puts you inside a movie shoot. It relies on sculptural compositing, like blue-screen and digital trickery, or layers of Baroque theater wings.

Nowadays, this immersion stops short of overt racist clichés or insults about service workers. Las Vegas is very much a capital of union activism, particularly the Culinary Workers Union. It has massive Latino and black communities. It has sprawled practically down to the Hoover Dam, down to Henderson. Clark County is mired in pollution, massive traffic jams, water wars, and complex politics left over from mining, a sense of colonization by foreign investors. Finally, the state of Nevada was founded by Mormons. The religious contrasts are staggering. So, on the Strip, quasi-Protestants have theocratically blended with quasi-Catholics. Their Christian alliance makes certain to not collide with other faiths. Religious crusades barely overlap, like two species breathing different air. The same is true of “feminine” industries. Filmmaker Arnie Willa writes:<sup>52</sup>

It’s the “mother of all strips,” according to Robert Venturi, who’s been learning a lot from Las Vegas ever since.<sup>53</sup> You can run but you can’t hide, mother will haunt you. She literally and figuratively cuts the town in two. Not to mention what she does to women’s bodies. All those maids bending, those waitresses serving, those clusters of women standing on street corners. Rosalyn, who runs the Friendship Corner, as a shelter for the homeless, wonders out loud: “If all women stopped doing the work in this town, what would happen?”



## 19. The Disappearing Nineties: Jerde Cities

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The twentieth century ended in 1989, once the Wall came down. Afterward, from one continent to another, a strange blend of grotesquely primitive formations emerged, from Bosnian nightmares to warlord capitalism. Finally, they have come home to roost as entertainment, certainly here in the United States—even back into the Middle East. At the same time, genteel extremes for entertainment match the new oligarchies. The largest McDonald's in the world has opened in Moscow. Suites for Korean high rollers in Las Vegas offer the most expensive massages on the Strip. Once again, the contrasts behind special effects are staggering, and yet somehow ergonomic, for a world dominated increasingly by a new kind of corporate monopoly. Huge, newly enlarged (or even engorged) corporations are held together essentially by advertising campaigns and digital media—very much by an “easy-listening” model of power.

For cities caught inside these emerging contrasts, the Jerde Partnership had a unique role during the nineties,<sup>1</sup> as the builder of new paradigms “on every continent except Antarctica.” The city was condensed into “toy towns” with “casbahs.” The patina of antique city markets could be themed. Indeed, the shopping center of the early Cold War matured easily into a full-blown city of sorts. Its mall enclaves easily suited older city streets as well.

But what urban model is that? Like late medieval cities, the central hub expanded beyond its walls and occupied farmland outside. This process was common for Baroque cities of the seventeenth and eighteenth centuries—once their medieval walls were removed. Beyond the walls, occluded meadows were suddenly revealed. Upon these meadows, as symbolic commons, sculptural fantasies were added.

Bernini helps us understand the purpose of these phantasmagoria. “To make of Time a thing stupendous,”<sup>2</sup> he wrote. He meant sculpture as allegorical time for the popular classes. An animated fountain “gazes” at the

pedestrian who takes five minutes to cross the piazza. During those five minutes, a story unfolds, about political power generally. Wonders had arrived by condescension—to common folks—from the church, wealthy magnates, or the king. These five minutes were sanctioned; they were safe for God and safe for Caesar. Most of all, they accommodated a growing pressure in the seventeenth century, “the peasant population’s invasion of the city;”<sup>3</sup> in nineties terms, a rudimentary way to expand consumer culture. Rituals originally for the knightly class were released to the “public.”<sup>4</sup>

The Jerde spaces apply Baroque special effects on behalf of corporate interests.<sup>5</sup> Of course, how far shall we take this metaphor? These parallels are instructive more than absolute.<sup>6</sup> As the vital issue, like Baroque effects, illusionism within a Jerde city relies on a very stable code, on far more than simply floating signifiers (a phrase very popular in the nineties). Baroque models explain this code better than postmodern discourse, ironically enough.

As noted earlier, during Baroque eras, the walls and ceilings became a narrative text expanded from very material Renaissance devices, like perspective or anamorphosis. Ways to subvert perspective were studied very much as a walk-through. Locations assigned on the floor, indicated where to stand within the story, or your version of the story. This tradition around perspective awry matured after 1550: as Neoplatonic fantasy in churches, palaces, theaters, then extending into piazzas and roads. From 1638 on, elaborate handbooks<sup>7</sup> on how to disrupt perspective were published. This elaborate grammar is oddly parallel to the Jerde mall.

However, only during the early nineties handbooks updating the Baroque began to appear. They were labeled architecturally as postmodern illusion; and became a subindustry. Even the term “the Disneyland version” entered our language during the nineties, to remind us that hypertrophied mall cities have become essential to globalized tourism. As a corollary, much was written in the nineties about the collapse of public space, at least “public” as it was understood in the industrial city of, let us say, 1920 or 1940. And these invaded public sectors apparently “spoke” on behalf of franchise capitalism. So how should we proceed from there, as a new generation dealing with perspective awry?

Jon Jerde started off with a direct question, beginning with his signature mall, Horton Plaza, in San Diego (1985). He asked what public spaces have been built in major metropolises over the past fifty years. He meant parks, or variations of the piazza. What experience in 1985 (or 1994, when I began interviewing him) can compare to the dense street life we imagine for Manhattan or Paris, or see in the opening credits to every Sherlock Holmes movie? Indeed,

our culture was developing an alternative, which he called (1994) “a community of consumers.” But how do we write a handbook about scripted spaces for this community, a way to sort out the evidence?

In nineties jargon (that I also used), the Jerrie city was not simply a precession of dissolving simulacra; it was too much like a diachronic movie about perspective awry. More simply, it scripted spaces where simulacra preceded as plot points, as architectural animation. Within the stories that his team developed, simulacra were coordinated like a Baroque scripted space more than an elegant car crash in a special-effects movie.

The plot points were coordinated as a shopping expedition. Breaks and lapses were added, inversions to move the script along—not textual critiques. Indeed, we had left the late twentieth century: The Electronic Baroque during the nineties was not late capitalism; it was more *nouveau* capitalism, a Marxist moment in a post-Marxist era. It was a by-product of capital accumulation on a scale that rivaled the industrial skyline, but in miniature—condensed, horizontal. It blurred in much the same way that *trompe l’oeil* and anamorphosis blurred—to play with blanks and figure-ground ambiguities.

We imagine a handbook to the Jerde narratization, then open to the first page—the basic operations. What were the illusionistic plot points within a Jerde city, so prototypical of the nineties?

## Cinema

When Baroque sculpture alludes to theater—this can be equated with art direction in cinema. Bernini was, in effect, sculpting movies in 1640. But for Jerde cities, what was the role of the viewer in this sculpted movie? For example, forty years earlier, movie glamour implied a visit to a premiere, to be among the cognoscenti who first saw the finished product. Now, increasingly, the movie set itself had replaced the premiere. One was encouraged to shop inside this movie set, as if waiting for the shooting to begin.

It resembled Baroque scripted spaces as sculptural special effects, or as a walk-through postcard. This phrase has become liturgical for me, in lectures and essays, and throughout this book. I use it to describe cinema, new media, theme parks, even new directions in literature, or the fine arts. It is an ontological clue for practically every medium in the Electronic Baroque, from games on the Internet to action movies to Jerde cities; and finally to tourist planning in old cities, like Amsterdam, Paris, Vienna.

I visited Rome while the churches were being prepared for the Jubileo in 2000. I was continually told that Rome could never be a shopping mall, since it has been the center of all Catholic pilgrimage for many centuries, and of tourism since the age of the Caesars.

We have seen how scripted spaces were traced, going back to about 1550. They make for a relatively coherent teleology. The consumer, like the Baroque parishioner three hundred years ago, is the central character in a story of sorts—“story” in a Weberian sense. The script is a form of predestination, and the consumer’s journey acts out the illusion of free will. The consumer finishes the story; however, the real conclusion (even the objects involved) belongs to those who own the script.

## Story/Armature

To repeat, Jerde saw his buildings not as façade as much as it was a “story”, a term he used often, much as Disney did. The story must be different for each visitor, even though the path is prescribed. The journey should feel like an act of free will; so much so that Jerde liked to call his projects “co-creative,” to emphasize the freedom to complete the text yourself. Even though the owners will interfere, he understood his buildings as a commons. He believed in the old Sullivan idea of Democratic Ways, as if CityWalk were a town meeting.

After Horton Plaza (1984), his next signature project was CityWalk (1994). This was the first leg of a larger master plan to integrate hundreds of thousands, even millions, of square feet, from the Universal Outdoor Recreation Tours to the MCA office buildings—but first “to link the parking garage and the Tour gate.” The theme essentially was to encapsulate Los Angeles, what Jerde calls “the transactural city, a deal-business diagram. We happen to drive between the spaces.”

That sense of “between spaces” is repeated frequently in Jerde interviews. Building blocks essentially “choreograph the journey,” from “one vessel to another.” In CityWalk, the vessel is essentially the missing car, the windshield around your body, a full-bodied “parody of Los Angeles,” as he calls it. As architectural animation, in 1994, we pass from one cartoon plot point to another. We start at the parking structure, immediately see the movie complex (the main profit maker for Universal, even more than the leases around it). Then we follow in half circle toward the highest point, near the see-through dome, in view of King Kong marking the halfway mark. Each miniaturized slice of Los Angeles

was punctuated by neon signs salvaged from bulldozed shops, to reinforce the sense of substitution. This animated set, what historian Margaret Crawford called “almost cartoon-like architecture,” blended Artifice with urban misremembering.

It is important to remember that in 1994, Los Angeles was in crisis, in a fierce recession, aggravated by a massive earthquake, huge fires visible near Universal City; and the aftershocks of the urban uprising in 1992. It seemed that many areas were on the edge of decline. Thus, a taste of *memento mori* was built into the narrative (not unlike the sense of urban decay around Horton Plaza in 1985). These were areas beginning to suffer badly in 1994, as real estate prices sank by as much as 60 percent in some districts. So there was a bit of *memento mori* on the fake Melrose Avenue; on the ten feet of Venice beach; in snatches of neon from lost motels and the Pioneer Market in Echo Park. The edited buildings zipped past you as if in a quick edit; or an old AM radio dial while you were cruising in your car, caught *between*.

The site for CityWalk in 1994 was very much between as well. Universal Tours were just above the “city” and just below the San Fernando Valley; cut away from the urban fabric itself. As Jerde explained, it was “not attached to freeway, the L.A. River, a mountain, or a graveyard.” Before getting the commission, he used to study the way it looked down upon his house below in the Hollywood Hills. He made it a literal metaphor for corporate space invested into a journey, very Baroque indeed, *trompe l’oeil* theater, informed by glimpses of L.A. movie memories.

He also claims that *Blade Runner* was part of the inspiration, the cyber-noir use of signage; the sense of overheads into dense crowds. Certainly, the space is laid out like a movie set, in a half circle that is interspersed (according to 1994 MCA executive Jim Nelson) by “hot spots,” a bench or plants where the circle gets too obvious. Jerde prefers elegant curves to describe the “between.” He likes to draw these on pads he keeps in front of him whenever we speak.

Indeed, Jerde had an almost metaphysical fascination with how the *zeitgeist* of the story was found, as if he were taking a divining rod to find an underground stream. He calls this stream an “armature,” shaped like a line that, while “artificial,” is irrepressibly “natural.” I am reminded of what Barthes meant by the term *mythologies*, how the artificial becomes so natural that it cannot be questioned. Of course, Barthes was thinking of corporate ideology. Jerde was operating at the intersection of many ideologies at once: shopping, tourism; real estate; global entertainment—and finally, local imaginaries. He insisted that armatures are a local code as well, a strand of local collective memory:

He is indeed almost animistic in his sense that the armature was local collective memory; the flow of “*gaia*,” the monads of global consciousness; monads here as the global shrunk down to a small unit, so parallel to Baroque microcosmos. This is particularly evident in the enclosing walls that embrace a stream under Canal City Hakata, in Fukuoka, Japan. He compares the armature there to rivers leaving strata on rocks, as if the path of consumers were responding to a nativist, genetic code.

The armature at Hakata is literally curved as if etched by the weather, literally striated. He is convinced now that the unconscious inspiration for Canal City was Canyon de Chelly, in Arizona, a canyon running flush with the desert into a “verdant valley” by a river. The rocky face of the canyon has been inscribed by winds for millennia, by “spherical wind cusps.” And inside the canyon wall, ancient Anasazi Indians had cut a city. Similarly, the two faces of Canal City enclose a stream, and seem honeycombed, as if shops were cut into stone.

But beyond “making the real look artificial,” for the space between, Jerde (or the Jerde Partnership, as he prefers to be cited) also imagined the armature as a catalyst. It grows more paths “organically.” What’s more; this growth should be accelerated, perhaps a century of urbanization in ten years, a kind of fast-drying patina. Postwar shopping centers (1950–1980) were not organic, certainly not in touch with streets around them, “boxes without windows,” he calls them. They repeated a master plan engineered around industrial efficiency or one-stop shopping, like defense plants or stockyards, like supermarkets. By contrast, the Jerde city tries to heroize trophy imagery from the local culture, exaggerate, even parody it. The line of buildings for lease along the armature should encourage local businesses, not simply global franchises, though frankly, he feels, wouldn’t any local businesses prefer to resemble the global, anyway?

Even more evident is the look of Horton Plaza from the outside. It opens to the public rather intimately, like a slim mountain pass in a movie western. Gingerbread storefronts line up on either side of the cleft. Jerde shrugs off the idea that the cleft resembles a sliced melon. He agrees, however, that it should open out, cut straight through a colorful bricolage. The effect, he felt certain, would not seal off the shoppers, instead take them through a branching system. I am reminded of different size envelopes stuffed into a basket—and given added presence through Baroque forced perspective, tricks of scale. He often describes the assortment as “kits,” and refers to the drawings of “ghostly shapes” by architect Aldo Rossi (again for Horton Plaza in particular).

The kit often includes tourist caricatures of local imaginaries. The shapes he assembles leave an armature for shoppers to follow (a term he first used

when rushing for deadline on Horton Plaza). Horton was a series of clefts through a reassemblage. The usual building blocks of the linear shopping mall were juggled: two towers for department stores, an armature curled for shops, and then a “rich man’s house,” with fancy tile work, to interrupt the space further. This Jerde calls “Abbott and Costello at the Casbah.” Jerde Partnership was formally allowed to “pull the top” (get rid of the roof). This was seen as money-saving, as well as responding to the gentle climate. Materials had to be inexpensive, “cheap stucco, asphalt and paint.” He even simultaneously double-used the same colors (by Sussman/Prezja) to the 1984 L.A. Olympics. The entire budget came in at only \$140 million. The colors were borrowed from the palette by Sussman/Prezja that Jerde applied to the 1984 L.A. Olympics. But most of all, this area in San Diego was considered too run down. It was the 1890’s Gas Lamp district, on the side of Broadway that no one wanted to visit or lease, “a burnt-out town.” The builder Ernest Hahn would explain that only five thousand people lived there, “half of them addicts, half of them fish.”

Thus, Jerde was asked to consider Horton Plaza as a redevelopment project. He decided to make it a “condensed San Diego” with room to grow into the Gas Lamp District nearby. The space had to allow “the jewelry of the street to keep changing.”

The result has a Baroque density like streets stacked on a receding hillside, modeled partly on Italian towns (Monte Fiasconi, Jerde explains); and echoing a tourist picturesque, like travel illustrations from 1870. I am always reminded of a colorful ant farm, layer by layer, striated in yet another way. Of course, Horton Plaza became an immense success, attracting twenty-five million visitors in the first year. Within a decade of its appearance, by the mid-nineties, the Gas Lamp District nearby had expanded, and in fact, began to copy the circus colors of Horton Plaza. In effect, as in cinematic special effects, the real was made artificial. The parody of the Gas Lamp district served as the original. As a scripted space, the solid bricolage reenacting an imaginary city street becomes a playful toy town, with playful inside jokes for the locals, and games within side jokes for the outsider.

How times change (note: 2023): After 9/11, Horton Plaza went through a number of failures, and after 2008, even more. The post 2003 economy proved too much. A few high-profile shootings and suicides added to its grim trajectory. Finally, in 2018, Horton was sold—and demolished—to make way for a tech office park more than a million square feet across. The power of Silicon Beach investors often wins out. It is like a return to aerospace engineering before 1970. Indeed, progress has a way of veering off course, or at least going

sideways. The Horton outdoor mall is seen as slummy. I met Jerde again soon after Horton was sold. He was suffering from dementia. But his kindness never abandoned him; only his peculiar drive.

### Condensed City (Back to 2003)

The *condensed city* is a term that Jerde used, but applies fundamentally to the movie set, to the way a New York street on the Paramount lot can combine three parts of Manhattan and part of Brooklyn within a few hundred meters. And certainly to his work at Las Vegas casinos: the shrunken West Indies at Treasure Island; the Italian Alpine town at Bellagio.

But let us for a moment understand *condensed* as what is left out as well. As storytelling, it can be compared to Freud's notion of condensation, the instantaneous layering of many memories at once, in order to allow the desire to cathect painlessly, to keep the dreamer from awaking. It is urban chiaroscuro, for the community of consumers: a condensed, narratized replacement for what must be left out. It is designed experience for a world where audiences prefer to eat inside the movie, rather than simply go to the premiere.

### Metropolitan Suburb

The Jerde city is a condensed version of what I call a *metropolitan suburb*; that is, a Baroque city honoring the nineties form of mercantilism—franchise tourism with a touch of the local. Indeed, throughout the nineties, many downtowns were suburbanized into a highly advanced suburbia. By 1994, consumer-driven malls had replaced the 1950s model for shopping centers linked to industrially planned freeways. Many postwar suburbs in southern California in particular had evolved into complex cities, particularly the eastern end of the San Fernando Valley, beginning with Universal City.

Thus, CityWalk announced the coming-of-age of Universal City as a metropolitan suburb: the company town as a citywalk. It stood at the center of a series of suburbs that were now the capitals of global media. How appropriate in the era of Electronic Baroque to have the scripted space evolve into epic cityscape. But not a city at all: CityWalk was isolated, enslaved. As Mark Gottdiener wrote of CityWalk, “a simulation of the city experience under tightly controlled conditions.”<sup>8</sup>

However, this condensed movie city becoming an actual city was a hot paradigm for urban planning throughout the world. It very much paralleled the urban village designs in Florida (Seaside, Celebration), and the theming of older downtown centers throughout the world. During the nineties, as the horizontal Electronic Baroque economy took charge, funding for cities shrank. Many townships tried to “thematize” their historic (and also their suburban) boulevards, to design communities for consumers, in order to keep that tax base close to home.

Jerde was flooded with commissions to redesign in a metro-suburban way the shells of downtowns that had faded into near oblivion (Kansas City, Rotterdam, Fremont Street in Las Vegas, modeled on the Gas Lamp District in San Diego). In the U.S. certainly, these were imagined as cities reincarnated from the 1920s. The moderne architecture of the 1920s—and earlier—now reminded metro-suburbanites of walkable streets abandoned, but now exoticized. To the powers that be, even to the middle class, they have begun to resemble “our” Roman ruins, cityscapes to rehab. At first, like animation, they seem playfully upside down. Then restaurant investors and flippers come in. As an Electronic Baroque architect, Jerde remade many of these as “folie,” a quirky pastiche, the spider silk of the pre-World War II streets as an armature, as a condensed movie set—essentially as a Gothic revival of the industrial city. He pioneered, ironically enough, the collective misremembering of the inner city as Gothic revival. In the future, any seventeenth- or eighteenth-century city (Prague or Old Stockholm) can be converted into electronic tourist communities as well, simply by readjusting the “jewelry of the street.”

In a few more decades, we will find relatively little of the gritty industrial neighborhoods left, not in the West certainly—except as widening zones of neglect or as isolated, airbrushed bedroom communities (condensed cities as metropolitanized suburbs). If a street has not been rescripted as a community for consumers, it may not be able to support itself, and will drift away, or be ignored.

Indeed, the condensed city also represents a culture of distraction—more about what is left out—as the widening class structure finds its institutional forms, like the Jerde city. Of course, Jerde insisted that he was not the developer or the sociologist. Instead, almost as a formalism, he offers only the grammar. It is for us to locate its complexity. The scripted space resembles movie sets, applies Baroque traditions, mimics urban politics, and camouflages them as well. They are an ergonomic labyrinth—a cheerful isolation.

Before the shock waves on 9/11, these scripted spaces appeared to be peacefully colonizing the world, setting the agenda for public culture. Despite the Bush paranoia, crowds flock to them in practically every major town in the developed world. As I explain in the next chapter, we are indeed, becoming tourists in our own cities, and must turn that process into as complex a statement as the Baroque was, see the paradoxes as honestly as possible.

# Conclusion



## Easy Credit: Driving Two Hundred Years a Day in Los Angeles

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On Sunset Boulevard, in the Echo Park District of Los Angeles, there is a Latino furniture store called Casablanca. Forty years ago, it was an international grocery before the area declined. A banner on the front window declares *easy credit*. It offers overpriced loans to newly arrived immigrants, often in the U.S. illegally, who cannot get credit for furniture any other way. This was how the immigrant peddlers in Chicago sold carpets to other immigrants in the twenties. It remains a staple of the ethnic ghetto.

A mile east of Casablanca, Sunset Boulevard ends at the old pueblo district, formerly Chinatown, now a Mexican shopping area known as Olvera Street. Old Chinatown was torn down over sixty years ago, replaced by the Union Station and the Terminal Annex post office. Both feel to many like museum pieces now remnants of a city that cannot find its way back to the postwar years, though recently, some of the “inner city” has become pricy, over \$400,000 for slum housing.

Nonetheless, the global economy by 2003 has not made much headway on south Chinatown. Even though large banks and upscale condos stand three blocks south, here no upscale tourist amenities have survived—no latte parlors, no gaudy restaurants, only a string of Anglo art galleries tucked in a northeastern corner. The 110 Freeway roars just below, like a cattle drive heading north to Old Pasadena, where all the tourist amenities can be found, of the new Gold Line trolley. A few blocks south, a campaign to convert Grand Street into a “promenade” is about to launch, now that the Disney Symphony Hall is about to open (during a period of near bankruptcy in the city treasury). With luck, in the genteel districts, you can become a tourist in your own city; even in your own body. Historic facades are tuck-pointed, and brightly painted, while all the original businesses are forced out, and global franchise shops are installed. The inside and the outside politely ignore each other.

Of course, the schizophrenia of Los Angeles 2003 is hardly unique. In many “world class” cities, you can drive easily from the touristed twenty-first century back to the twentieth century; or even back into a consumer-driven version of the Baroque. Two myths erase each other—scripted spaces for the rich; and noir exoticism about the poor.

Thus, cities are being rescripted as special effects. You can drive a hundred years in a few minutes. Before long, the centuries will spread even further apart. The poor may be stranded two hundred years away. In the new global economy, the classes live steadily more apart from each other. And among the camouflages, each from the other, the most famous may be “Global” L.A.

Global L.A. does not exist physically in southern California. It is a portable or exportable—“special-effect place.” It “speaks” English, but not “American,” and speaks for businesses too vast to be merely American: Daimler-Chrysler; German publishing giants owning American presses; Rupert Murdoch’s empire; German and French cinema filmed in English. It is a designer language for consumer glitterati, reflected in the British fashion magazine *Wallpaper*, or in special-effects blockbuster movies by directors who are as likely to be European or Asian as American.

In Vienna, at gambling cafés in working-class districts beyond the Gurtel, neon camouflages are what remains of the Habsburg nineteenth century—in-  
deed two centuries on the same block; it is much the same in Berlin. Traces of American signage mix with graffiti in Paris, London. These seem innocent as far as colonial investment goes; and many of them do not even involve American capital. It is not gunboat diplomacy or armies of occupation. It is a cybernetic order, polite, seemingly innocent.

Until 2001, Global L.A. seemed a playful reminder of all this—a smiling internationalized, catholicized modernity. It was a brand for the accumulated capital of transnational business; as well as for scripted spaces, consumer-built environments. There the old public sector transforms into the Electronic Baroque. What is terribly wrong with that? It is merely a ghostly invasion, even for residents of L.A., who indeed are colonized by these investments as much as the Viennese.

Broadway in Los Angeles is the largest Mexican shopping street outside of Mexico City, but generally ignored by Anglo leadership. Imaginary Japanese streets in Little Tokyo presumably make businessmen from Osaka and Tokyo feel at home. Names in Global English (the nine hundred words that make you a consumerati)<sup>1</sup> crisscross like cities named Caesaria in the Middle East during the Roman Empire.

## NATO Special Effects

Let us review how this laminated version of special-effects historicism came into place: During the second wave of the Cold War (1962–1980), consumer industries in the U.S. merged frequently with heavy industry, generating new imaginaries about America. Rituals shared during détente and glasnost turned into odd metonyms, huggable tourist phantasmagoria—more about perverse military/economic alliances than about fantasy L.A.

## Checkpoint Barbie

In Berlin, a few streetwalkers used to dress up as Barbie, quite accidentally (or ironically)—and before 1959, before Barbie dolls first appeared. Barbie was originally a bawdy figure in a German comic strip named *Lillie*, soon after the war.<sup>2</sup> Then Lillie dolls were manufactured in Germany, primarily as sloe-eyed pornographic toys for grown men. However, in the fifties, the young daughter of Ruth Handler, founder of Mattel Toys in the U.S., fell in love with Lillie during a family visit to Germany.

Samples of the Lillie doll were then taken to the U.S., like rare dinosaur lizards from Indonesia. Her body was transmogrified, made into a huggable teenager. Designers in L.A. worked with manufacturers in Japan. Through endless revision, they widened Barbies stare, sanded down her nipples, narrowed her hips. Indeed, Barbie may be the most successful toy of this stage of Global English investment. At one time, a Barbie was selling every second—a totem for Global L.A., the blue-eyed, Wasp-waisted anorexic that barely stands on its own, but wears clothes well. She sells anywhere, teaching little girls how to role-play the new global suburban-ism, how to become a tourist in your own house.

Of course, that early stage has ended, during what I call the era of “internationalization” in the eighties, with an “L.A. School” that emphasizes the risks of this downsizing.<sup>3</sup> Clearly by 2003, of course, Global L.A. has surpassed that stage. It has become far more coordinated, spreads its banner much deeper than in 1990; but it shows signs of cracking. The end of the Cold War turned NATO consumerism into a coherent whole, like a colonial system; and then suddenly in 2003, that seemed to reverse itself.

For a time, German investments in Hollywood films were legendary until, the recession of 2002. Profits beyond the American box office accounted for as

much as 75 percent of the income for a so-called Hollywood film. *Independence Day* (1997), that classic American action film, the one most remembered during 9/11, was designed mostly by a team from Ludwigsburg, Germany. When New York is blown up by aliens, they reenact the bombing of Stuttgart in 1945 as much as the fantasy of a blade-runner apocalypse in the U.S.

Graffiti throughout Europe “spoke” Global English, in balloon letters modeled on gangsta L.A. and downtown Manhattan. The dust from MTV mixed with business English, those nine hundred words that allow businessmen in Stockholm to talk to investors in Japan, or on the Internet. Or the English of the European Community, speaking for transnational shake-ups that have driven up unemployment in Europe. It has weakened unions, diminished government services, widened the class structure, blurred national borders, brought a flood of immigration in Europe, Asia, Latin America, and the U.S., and bloated the populations of Mexico City to twenty million and São Paulo and Istanbul (and soon Shanghai) to fifteen million. In some cities, the twentieth century grew past itself like a cancer, without much public sector to support its crushing problems.

So, we must see this in neo-Marxist terms essentially, beyond the fantasies. Primitive accumulation began essentially from the sixties through the eighties, what critics called *internationalization*. Then in the nineties the takeoff converted cities and homes alike. To repeat, like medieval walled towns spreading into the countryside, the shopping mall has now colonized city streets. The more historically intact the street appears, the easier to “theme” it, then stock it with franchise businesses.

In short, Global L.A. was a phrasebook for tourist urban planning as special effects—a victory of the “international” shopping mall. From metropolises in East Asia to Baroque capitals in Europe, cities were being remodeled with signage and presence that seemed to “speak” English, even echo myths about Los Angeles. With growing splits between classes, a new set of uneasy alliances took hold, and began building its monuments, using Global English. They heroized “slippages, fissures, lacunae,”<sup>4</sup> very much like Baroque special effects, like a cinematic social imaginary.<sup>5</sup>

It is a twisted joke. We have been struck dumb by gambling cafés and latte parlors, by an elusive cybernetic system that industrializes desire, but also uses essentially the same software for missile simulations as it does for special-effects films. We have gone a long way from Adolph Loos’s American Bar in pre-war Vienna, now tucked in the corner of the Ringstrasse like a tiny potted palm, while thousands of tourists mill past it. That was the imaginary Manhattan

of 1910, a tiny place locked inside mirrored walls. Now the mirrors are on the streets themselves.

## Collecting False Memory

Special effects theatricalize false memories. They are engines of erasure. For example, while researching this book, I tested the waters, tried art projects where special effects erased memory: a sixty-foot Tex Avery cartoon (1999);<sup>6</sup> like landfill, adding two more rooms to Holland (2000);<sup>7</sup> Websites on how downtown Los Angeles has been forgotten;<sup>8</sup> a cinematic database novel about collective erasures (*Bleeding Through*, 2003);<sup>9</sup> and others, generally picaresques into amnesia. In the Electronic Baroque, special effects often reinforce a self-conscious desire to filter memory. Certainly, war has its media filters. Indeed, forgetting may become the monument of the Electronic Baroque, if anyone will care to remember.

At a workshop in 1999,<sup>10</sup> I asked German college students to select forty Hollywood films that represented the image of Los Angeles—to them. That included some westerns, which somehow seemed very L.A.; as collective memory. Only films dubbed into German were permitted; most American films are dubbed anyway in Germany, have been for generations.

I had a sensible filter: a German company in Munich hired the actors. The same actor dubbed Brando and John Wayne. Only American movies on video shelves were selected. It was a highly improvident case study, more like a literary object about the memory locatable only by its absence.

After days of endless viewing, forty sound bites were assigned by the team, based on our mutual discussions about “consequential” scenes (but not my direct input; I don’t speak German). In fact, most of my favorite speeches sounded dull in German. And women’s roles became even more sexist, buried under the dull brass of dubbed voices. These filtered movies were a clumsy marriage between fantasies of “tough L.A.” and existing film imagery. But perhaps L.A. was never made in L.A. anyway, not completely (that occurred to me often). From the arrival of Lubitsch in the twenties to the émigrés of the thirties, many Germans helped invent the Hollywood image that was being imported—both screwball and noir. So was Global L.A. mutually exported?

After a few days more, each selection of dialogue or ambient noise was reduced to twenty seconds. The samplings were delivered to Otto Krantzler, a sound engineer who has worked with Stockhausen, among others. Krantzler,

in turn, put the sound bites on black-and-white keys, like an organist about to accompany a comic nervous breakdown—but in a very orderly way. He invented a notation system for playing the voices, similar to late modernist sound fields (clusters, panoramas, leaks, line breaks). I left for a breather while he spent ten days playing with “memory”. At last, he edited the mass down to an eight-minute piece, a *sprechstimmer* of voices, what I call a memory sonata for Global L.A.—a polyphony of roars, chants, complaints, an indistinct chatter (three acts overlapping in a few seconds).

A few days later, the piece was premiered at the Kuenstlerhaus. At the opening, I walked to the center of a blank room where the tape was played. I told everyone that Los Angeles was hovering like bad ventilation on the empty cement floor. L.A. was a floating commodity (not unlike Lyotard’s models for the fluid economy, or Deleuze and Guattari’s descriptions of nomadic sign systems). And yet, this “fluid” L.A. was highly coordinated, far more than ten years ago. One might say the same about Bombay, southern China, Vienna, Rome, London, Prague. The situation had somehow gone beyond the post-structural paradigms, or should I say, academic assumptions based on the master works—terms like simulation, deconstruction, late capitalism, the panoptical, and linguistic schizophrenia.”<sup>11</sup>

At the same time, these sound bites seemed flooded by precisely that, by linguistic paranoia, floating signifiers, filiation/affiliation. What was the difference as of 1999? Without question, this sound mix—like the code for movie production—was as stable as margarine. Outwardly, it seemed highly fractured and incomplete; but underneath, it ran as precisely as an internal combustion engine. It even sounded orderly, phased. Indeed, the sounds in the memory sonata were not “floating” signifiers; nor were they symptoms of random (or rhizomatic) decay. They were samples announcing a reterritorialized system, like a website for a Swiss bank with a Warner’s cartoon logo—like a sonata with notation. L.A. movie memories for sale, no matter how perverse they seem, are not flooding the world with incoherence. They are part of a master system, as Electronic Baroque tourism.

## The “Last” Twenty Years (Until 2003)

We separate 1985–1990 from 1991–1996, and then after 1996. Consider the problem this way, with L.A. near the center of these changes: Internationalization of the eighties is a response to dislocations already evident by 1970, particularly

a vast widening of the classes.<sup>12</sup> Davis, Soja, and others notice this dislocation, the greed behind it, and make that the herald of their books and articles from 1985–1990, a critique in the afterglow of the new L.A. school of architecture (Morphosis, Gehry etc.). Davis in particular warns of crisis to come; this seems realized in the shock waves that strike Los Angeles from the spring of 1991, with the Rodney King incident, to the uprising of 1992, followed by fires and quakes, in the midst of the terrifying recession and surveillance/enclaving of the mid-nineties.<sup>13</sup>

And then, a sea change: first real estate on the West Side explodes in price (1997). Media capitalism integrates on a scale that was unheard of even in the “golden era” of the studios (1925–1947). Symptoms of the change are evident everywhere: the new flawed subway system seems to lead only to the film industry, to tourist memories on Hollywood Boulevard, or into the heartland of media businesses, in the east San Fernando Valley. Los Angeles boosterism is back, with a global media twist. Those are the essential outlines, a colonization through a fully saturated tourism, a kind of chivalry by way of shopping mall during an era of rampant war-lord consumer capitalism. That is “global”—or I should say transnational—Los Angeles in the era we face next.

Unlike neo-imperialism from 1870 into World War II, Global Los Angeles can colonize the “mother country” as comfortably as the foreign market. It stands in for a mode of production that is as placeless as the media image of L.A. itself. Thus, one can find colonies for the Pacific Rim just west of downtown L.A., in MacArthur Park, where a vendor economy led by Central Americans provides ultra-cheap labor at transnational prices. Global mall/themed architecture reinforces the class structure that transnational economies encourage, a smaller middle class, a much smaller artisanal working class, more mobile job alliances, fewer unions.

The internationalization of L.A. that Mike Davis and Edward Soja describe eloquently in the late eighties has matured, far beyond the postwar threads of light industry along the freeways, beyond Japanese investments downtown. They are now hubs for exports, film production, software, aerospace. And clearly this is a global trend, toward the sprawling, digitized corporation. We cross the San Fernando Valley, once the classic model for white suburban fantasy. We see belts of high-rises, their own banking centers, and an industrial job base—nearby slums for cheap labor—in short, all the mess we associate with the downtown center they were designed to replace.

What does this suggest about the urban future for portable “global L.A.’s” around the world, for parallels in Europe and Asia? Let us try to engage this

“fluid” model as a mutable form of tourist special effects. It looks oddly free from walls and ceilings, not unlike the blobs and folds that new architects used as a model for a few years, along with work by Asymptote, Bernard Tschumi, Hadid; or Gehry’s masterwork in Bilbao. What kind of city will this model support? The term I use is *metropolitan suburb*: a suburban consumer gentility; a link between suburbanism and global tourism that suits architecture like this.

For L.A., I can review the basics of the “Metro” suburb quickly enough, the enfolded or even serpentine cities of the future. “Suburban” Burbank has become arguably the global capital of cinema, with annual media business exceeding \$2 billion, led by corporate giants headquartered there: Disney, Warner. Also, Southern California is now the largest export center in the U.S., from the *maquilladora* just below San Diego to the upper desert just below the orchards of central California. There are “Asian” cities in the San Gabriel Valley, now renamed “China Valley.” Businesses centered in the city of Santa Clarita are spearheading an expansion toward Ventura County that could add up to 100,000 more people within a decade or more, turning what remains of old orchard land and the battered historic town of Fillmore into a new urban sprawl, with Santa Clarita as its eastern capital.

Variations of this expansion have happened before, often in fact since the teens. Once again, the original green spaces of greater L.A. will be ravaged. And the gulf between rich and poor widens; these suburbs provide an urban plan that makes the gulf look more natural. However, during the recession of the nineties, suburban slums appeared to be growing, in Pacoima, San Bernardino, North Hollywood, Reseda, Van Nuys, Northridge, Santa Ana. Also at the same time: enclaved communities were reinforced, even monumentalized, to match growing Baroque hierarchies in the class structure. Castle/oases meet cybernetic feudalism. Post Cold War neo-chivalry expresses itself through neo-Tuscan mansions down-town to “Mediterranean” shopping malls in the Basin. Boba and Jamba-juices decorate new Chinese suburbs being tucked into Alhambra. South Pasadena literally removes parts of El Sereno that remained frozen due to legal disasters surrounding the 710 Freeway extension that never gets built. In the San Fernando Valley, Victory Boulevard becomes for many the street below which immigrants shall not pass; another Hadrian’s wall being assembled through real estate pricing, more urban paranoia.

Beneath this suburban calm lie tensions. Until 9/11, they seemed relatively dormant. Now Los Angeles, and California, like many states, are in virtual bankruptcy, struggling to keep hospitals open; as the Homeland Rule proceeds like a Counter-Reformation, a counter-fundamentalism, like the Spain of

Philip II punishing sea powers on both sides of the Mediterranean. I see a feudalized economy emerging that may separate the city into something like city-states, as support from the federal government dries out. A horizontal transformation, as the vertical order dissolves, will very likely astonish all of us. Certainly, it is rearranging what were suburbs, and what was city.

The ethnic complexity of what used to be “suburbs” surprises me. For example, along Ventura Boulevard, out in Tarzana, beyond what used to be walnut farms and the “ranches” of movie stars, I find a Zionist glatt kosher restaurant, a sushi bar, and an Iranian grill right next to each other, as if they were in east Hollywood. Ventura Boulevard may indeed be the most ethnically mixed business street in southern California, oddly enough.

These “post-suburban” ironies provide a glimpse into Global L.A. as it actually manifests inside neighborhoods. Terms like *privatization*, *Disneyfication*, *enclaving* appear in European literature as much as American—as cyberpunk rereading of Foucault. All this indicates a portable, ruthless colonialism below the glitter of container-ship capitalism.

Mike Davis’s *City of Quartz* became the classic summation of the eighties, of that earlier stage dominated by theories of panoptical control, and the “internationalization” of Chiba City—Japan overtaking L.A. And at the same time, since 9/11, it captures once again the paranoia of the emerging era—Fortress L.A. but on an international scale, during the Bush wave of retro-imperialism.

For the next century, L.A. Studies will concentrate increasingly on how globalization is transmogrifying the local, beyond concepts like *Global L.A.* This may include the fiscal dissolution of the state of California during the war on terrorism. The extended Los Angeles region will push more into the hinterlands, as Davis showed in *The Ecology of Fear*<sup>14</sup>—stalking ecological judgment day out in the high deserts or heading closer to the Nevada border. The crisis widens; the model grows even broader. Neoliberal “safeguards” pretending to outrun global disaster will add even more digital amnesia, more scripted spaces.<sup>15</sup>

Increasingly, a new Las Vegas was discussed in the same breath with Los Angeles,<sup>16</sup> two cities where tourist resorts are designed more as “pedestrian” fantasy. Both cities were becoming more walkable, had added more room for pedestrians—but not in the sense of industrial cities, or 1940’s forms of the suburb. We see photos of crowds in cities before 1940, but do we study exactly where each person was heading? Or do we simply want to imagine that they were choreographed like furniture some-how, scripted?

Instead of industrial death traps, imaginary older cities are becoming desirable today. But often their makeover resembles movie sets with food courts inside. You walk as if you were driving, or perched on top of a movie crane. For example, in Las Vegas, the casino New York/New York re-creates Manhattan as seen through a car window on the old Staten Island Ferry; but you walk as if you were cruising in an old Buick. Various suburbanized downtowns also resemble cyberspace—a cybernetic C/G fantasy. A 1920's street becomes an outdoor mall scrubbed clean for tourists, and scripted for navigation, like a video game.

Tourism is crosswired with urban suburbanism, *f/x* scripted. In 2002, L.A.'s newest entry in this double whammy—another fake/real mall/city—opened to record business. It even survived orange alerts and anti-global paranoia. The Grove hit the mark running. It simulated Euro/ Baroque winding streets, betwixt a Disney main street: clock tower, trolley, town fountain. Yet, it stood directly inside the Wilshire Corridor, arguably the densest urban district in L.A.

One new paradigm for urban life worldwide is surely a kind of inner city suburb. Old sidewalks lead to stadium seating in the multiplex, latte at the Starbucks; Barnes and Noble not far from a Borders, near an Italian food chain—a nest for franchise businesses. Wherever tourism has expanded, whether in Vienna or Santa Monica, a fussy glow has taken over the storefronts that is both urban and suburban. The malls have indeed invaded the streets themselves. That is Global L.A. as an urban plan. Certainly, that is what overtook Burbank, when the streets around Palm and San Fernando outpaced the Media City mall, literally surrounded them. So too “Old” Pasadena—a mall without a roof—became a “themed,” or scripted space. Also, Times Square in Manhattan, and Piccadilly Square in London; all have their share of Global L.A., its advanced suburban amenities.

I don't see anything as conveniently isolated taking place in Mexico City or São Paulo or Istanbul, though we may see it yet in Shanghai, where Starbucks has caught on like a virus. At last we live in a world where we all become tourists in our own city, even while scripts about terrorism change the rules of global special effects. Thus, city streets are policed like malls; while nations are policed like airports. That is the immediate trend in the U.S. The metropolitan suburb may indeed have been prophetic—special effects and paranoia merged into what is presumably a harmonious and walkable script. Meanwhile, neoliberal anti-urban cuts from Washington force cities to restrict the mixing of the classes. Cutbacks favor genteel spaces, more like smaller cities in 1840 than the hubbub of 1900.<sup>17</sup>

Our class divisions have obviously widened. Special-effects monuments and citywalks glorify (ennoble, beautify) this horizontalized, almost feudal class structure. They script “adventures” about political systems, more overlapping, uncontrolled corporate power. Our major industries have been globalized, even beyond the reach of national governments in many cases. Business marriages between media and heavy industry increase. So why shouldn’t our cities look like the forms of capitalism that run our culture? The age of master-planned federal public works has ended in the U.S. (and may not last much longer in Germany either). Mega-consumerism (Global English/L.A.) has boxed the compass, and billed it to our MasterCard.

## Mutable Space

In the eighties, internationalization suggested three issues primarily: foreign investment; massive immigration; and thirdly, flexible, mutable sites for production. Often, these three together implied a utopian chaos theory for post-industrial capitalism. But by the nineties, we saw how “erratically” this worked. We noticed a new twist in many sweatshops near downtown L.A. An iron grille fence has been added in front, for easy escape when immigration officers come. In the late eighties, to keep production costs “global,” sweatshops made shirts so cheaply, they had to sew on used labels saying “Made In Brazil”—to put immigration off the scent. The garment industry in LA grew into the largest in the U.S. Finally, local garment workers rallied for unions. In reply, more than fifty percent of the clothing firms then relocated to northern Mexico, in only five years. Indeed, California’s “borderless economy”<sup>18</sup> was not as clumsy as in the seventies. Offshoring apparently went much smoother, and faster.

Mutable space became a crucial piece of every new puzzle. As historian Roger Keil wrote, “exurbanization and edge city developments have taken hold,” along with “flexibilization and globalizing.”<sup>19</sup> Increasingly, these flexible investments were linked not only to corporations downsizing, but also to planning in the metro suburb. Mario Gandelsonas, in *X-Urbanism*, summarized what brought on mutable spaces: computers; the pleasure of surveillance; text as space. These reinforced a kind of permanent erasure/mutability.<sup>20</sup> What I called *erasure* (1997, *The History of Forgetting*) began to resemble social imaginaries in casinos or malls—and downtown as well. The interior design was supposed to be mutable, so the space could shift gears continuously, maximizing profits.

Mutability as an architectural model clearly had been much less established in the eighties. In Southern California, Horton Plaza (1984, architect Jon Jerde) may have been among the first—CityWalk (1993) the more famous—but many more have appeared since. High-rises in Westwood were refaced in the nineties. Hundreds of streets throughout the U.S. were themed, or “historicized” for tourism. Malls were reconfigured as well. Even the “Valley Girl” ur-mall, the Sherman Oaks Galleria, got much more than a facelift.<sup>21</sup> It was converted into an office park/entertainment complex, with far more visibility to the street, as well as sixteen new movie screens, with stadium seating, of course; not unlike the pseudo-City Beautiful urban village in Pasadena, called Paseo Colorado. Or the Hollywood and Highland pharaonic temple to movie tourism.

But after 2001, many new partnerships between digital corporate investment failed, lost traction despite the right “walkable space.” Flexible malls, from Italianate local convenience strips to malls without ceilings, had screamed at city hearings—to speed up the metro suburban plan. Now they sounded a bit too shrill, or too obvious. The globalized local was proving unstable suddenly. The grander eye candy, and the sim-historicism, did not quite fit the war on terrorism, and higher gas prices. Investors were certain that they knew how each piece fitted together, down to the square foot. But new anxieties had recoded public taste.

## June 2003: Cheerful at the Precipice

With this collective anxiety, tourism seems to be separating from suburbanism, but that may be temporary. The “fussy glow” is still popular; it is still in every marketing campaign I see. Even as the fury in Iraq grows day by day, the gentry seem to live in a comfortable Edwardian twilight: essentially white, wealthy, and walled in, protected by real estate apartheid. Housing prices balloon even further. Middle-class districts look even more like citywalks, like condensed copies of themselves, partly to keep the classes separate. I live in an old working-class district again, as deep in the mid-twentieth century as if I were back in Coney Island as a child. The twenty-first century is six minutes away; I timed it this afternoon.

In the leisure and special-effects industries, business marriages between media superpowers and heavy industry have increased. Legal restraints on all monopolies that market pleasure are disappearing rather quickly, for now. TV

news in the U.S. resembles what I often call a brush of peanut butter between two slices of stock market.

And in keeping with Americans' allergic denial of the risks ahead, fancy districts also look more like slices of stock market right now, even compared to three years ago (20 percent more in sales price, at least). The only protection against terror is housing pedigree. The only sure pedigree is a house with four new bathrooms, tested for mold and other allergens. The age of master-planned federal public works has ended in the U.S., and cannot survive much longer in Europe either. But in the words of the silent classic *Nosferatu* (1922), we have crossed the bridge, and the shadows are coming out to meet us. Most likely these will not be American or western European shadows. The first may come from Iraq; then from parts of Africa, South America, Central Asia, perhaps even the eastern Baltic in Europe, or the Balkans. All these places struggle under varying degrees of meltdown. But their trauma is mostly ignored here.

Special-effects summer blockbusters get most of the serious cultural attention. And Vegas casinos have decided to get racier again. The family will not be glorified during this neo-con era. Domesticated pornography will do better. While the crusades against Clinton's penis have thankfully ended, they began this wave of erogenous fundamentalism. And with the home front safely under home rule, special effects have turned instead to happy wars, like politicized happy meals.

All forms of liberation must be downplayed in movies and on TV, particularly while basic comforts for anyone with incomes below \$50,000 start to crash. An economic upturn has been signaled, but it is also being called "a recovery without job growth." All sins and all mistakes are the vengeful acts of foreigners. A new placeless yet bloody Thirty Years' War (possibly that long) has arrived, and taken charge.

And yet, fundamentally<sup>22</sup>—that popular phrase in 2003—I am optimistic about the cultural challenges. We are moderns again, caught during the emergence of a world war unlike any known before. We have to practice the old breathing technique, to have a heart of fire and a mind of ice. There is unquestionably a future beyond all this. But we will have to grapple with the seriousness of scripted spaces, media despotism, simulation, political repression, and the Electronic Baroque system far more directly, like it or not. Better to like some of it; the world is not going to turn back. That is certain.



# Afterword



# Bush as Baroque Special Effects: (December 23, 2000)<sup>1</sup>

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## Media and Aliens

From Baroque theater to global tourism today, special effects have re-peated one plot point most of all. The audience is immersed on a labyrinthine path. The path offers them the illusion of free will; but the options are irretrievably controlled. In nineties movies, this control was central to the story: worlds run by puppet masters of one kind or another; perhaps by aliens from another solar system; or in the *Blade Runner* genre, by cyborgs who outsmart their makers. In fact, these aliens were fashioned by transnational media companies. The trans-companies were not so much alien as obsessed with feedback systems of all sorts (thus cyber-games, theme parks, tourist streets, remote controls, cell phones; and after 2011, simulation scenarios for homeland rule, for wars on terrorism and in the Middle East).

In these stories (cyberpunk and after: 1982–2000) special-effects aliens play power tricks with a viewer. But they play sneakily, or so the story goes; they work their evil with a velvet glove—quietly, ergonomically. Like dozens of “matrix” films over the past twenty years, ergonomic secrecy lets the citizen pretend to be freely in control. But meanwhile, behind the scenes (in our imagination at least) feedback “experts” pull the strings. They tend to look like diabolical spinmeisters, brand-makers, social imagineers, perhaps bald and varicose in *Dark City*, or corporate and buff in *The Matrix*. They speak in monotone, as if they were Artificial Intelligence; but they are closer to media researchers invading from hell.

Meanwhile, the simulation industries that inspired these movie fantasies—and political spin—continued testing their systems, particularly in the “burgeoning field of Complex Adaptive Systems” (CASS).<sup>2</sup> In 2000, a CASS system called Smart II predicted California’s electricity price spikes—a per-

verse claim, of course, since these prices were utterly artificial, manipulated directly by energy companies like Enron. Smart II must have had interesting inside data; or, like many polling systems these days, it managed to come up with precisely the answer that conservative ideologues require. The world is not spoiled by greed, the story goes. In fact, greed is logical, sensible, and a sign of a clean conscience. Pure greed is pure.

Smart CASS systems are simulation tools. They help researchers study “the behavior and interactions of individual agents—a single decision-making entity such as a consumer, company or product within a larger system.” Then they write scripts, not unlike scriptwriters for a movie. They build “models” about patterns that come with “extreme events.”<sup>3</sup> They also have helped reimagine ancient Mesopotamia (ca. 2500 B.C.E). CASS is being used for terrorist network remodeling, for counter-drug simulation modeling (for combating the South American drug trade).

In July 2002, President Bush visited a leading CASS company called Argonne, “to learn about homeland-security technologies, and Argonne’s SMART tools (research funded by the Department of Defense).”<sup>4</sup>

Similarly on 9/11, at the CIA, four miles from Douglas Airport in Washington, the strategic gaming division of the National Reconnaissance Office (NRO) was “running a preplanned military simulation.”<sup>5</sup> They were testing what might be done if “a plane (leaving from Dulles) were to strike a building.” However, fifty minutes before simulated launch, American Airlines Flight 77 actually took off from Dulles, and was crashed by terrorists into the Pentagon.

As early as October of 2000, the Pentagon itself tested out a simulation scenario that pointed toward terrorism like 9/11. Many computer stores actually had military simulation games for sale, even games that could crash a plane through a building (Microsoft’s Flight Simulator may have helped prepare 9/11 bombers). Anyway, this sim scenario from the Pentagon was an emergency response software program called FDon Scene. As a further irony, FDon Scene was used in 1998 by the Texas Fire Chiefs Association as a “consequence management system”; even more ironically, it had been developed by the Defense Advanced Research Projects Agency (DARPA), who had sponsored what eventually became the Internet.<sup>6</sup>

Today, simulation in media has evolved into a precision tool that exercises enormous political power. This tool can fake wars or break treaties. On TV, it works as an imminent—not a servant—of power. It operates practically as an *instrument* with its own kingdom, by its own authority, in a theater as politically coherent as Baroque special effects. That is not to say that the goals are

coherent, only that its special effects have achieved a precision that reminds me of perspective awry or immersion in 1600. Those who use special effects may be corrupt and self-destructive; but they know their own political mind very well indeed. They can maneuver public opinion on a scale that is as startling as any disaster film I have ever seen (and that includes thousands of blow-'em-up movies, animations, installations).

Of course, one case study disturbed my sleep more than any other. I should take us there for a few pages, back to the American presidential election in 2000. (I will cannibalize from an article that I wrote in December, before George W. Bush was perfected as a special effect.) You understand of course that this is before Bush earned his spurs by chasing down the Axis of Evil and terrorism between one orange alert or another.

## Election 2000

The year 2000 was more than a wake-up call for this book. I refashioned various chapters afterward. But weirder still, my research fit better than ever before, as if I had been getting ready to explain 2000. Not enough changes were needed, considering how grave the shock has been to the American system. The evidence was not pointing toward hyperbole: it was simply explaining how the Electronic Baroque, in a dissolving world of electronic feudalism, was inventing a civilization based more on hierarchy than on middle-class fantasies of democracy.

I have to confess: Throughout the election season, I began to literally have Bush-mares. Johnson had never invaded my sleep, even when I was practically staring the draft board in the face. Nor did Nixon, not even Reagan. Bush was immediately different. The presidential election haunted me, because it absolutely fit every category of special effects that I had located over the past four hundred years. Baroque trompe l'oeil had turned into cable, TV: Americans were invited to vote freely, watch freely; but behind the illusion, they were clearly being blindsided. It was as if computer-generated software had invented a president.

An uneasy alliance was set up between a fundamentalist wing of the Republican Party and global media (Murdoch, GE, Viacom, etc.), who offered the tools of special effects in order to coronate Prince George. The overall impact of many media had proven equally conservative as of 2000: the Internet; cybernetic data systems (retrieval systems and data filters of all sorts); even notions of virtual-

ity. The conservative patterns in media crept almost behind the scenes, upon the cultural and political world, through right-wing think tanks, talk radio, on the Web. But after 1998, during the great Penistgate crisis, as millions wondered if indeed, Paula Jones knew precisely the shape and tilt of Clinton's penis—and would this be broadcast over the Web—the sheer weight of virtualized fundamentalism began to be felt.

Media in its new alliances was not anarchic, not innocent, not a noosphere.<sup>7</sup> Perhaps eventually it might repair the Gutenberg schizophrenia,<sup>8</sup> but not in 2000.

To get our bearings, we refer back to McLuhan's praise for instant replay. What had it evolved into by 2000, during the media watch after the election, its potential to "retrieve meaning"?<sup>9</sup> Similarly, the implosion promised by McLuhan—then ironically turned more apocalyptic by Baudrillard<sup>10</sup>—was indeed ominous: the American presidency imploded while global media stepped in, to obviate the old constitutional balance of power (never that egalitarian to begin with), and remake the America presidency in time for Christmas. The election of 2000 came closer to what McLuhan called (1964) "a desperate and suicidal amputation, as if the central nervous system could no longer depend on the physical organs to be protective buffers against the slings and arrows of outrageous mechanism."<sup>11</sup>

I do not want to sound melodramatic. That damages a critic's instincts. The last century, after all, delivered murder on a scale I hope we never approach again. Better to simply announce that the "cybernetic spectacles" promised by cyber-theorists as early as 1967 had taken a somewhat surprising turn in the U.S. V.H. Blix felt that these spectacles, enhanced by data feedback, reveal social systems as clearly as "unraveling the mysteries of the physical sciences."<sup>12</sup> But by 2003, we find an unraveling of another sort entirely—a spectacle even more universalized and coherent than anything even the Situationists had imagined in 1967, on the eve of a near revolution in France.

Perhaps a different quote from McLuhan might take us closer to the spirit of the crisis (1954):<sup>13</sup>

Nobody yet knows the language inherent in the new technological culture; we are all deaf-blind ... in terms of the new situation. Our most impressive words and thoughts betray us by referring to the previously existent, not the present. We are back in Acoustic Space.

Or as another twist, perhaps we have achieved what McLuhan meant by the “iconic absolutism of ‘Being’” replacing the older sequential process, “the chiaroscuro of ‘Becoming.’”<sup>14</sup> But this absolutism is delivered as special effects—gaudy media as Being. And these effects, by 2000, had begun to flatten the American democratic access, by marketing the presidency as Becoming. Baroque spectacle in 1620 was used in much the same way, on behalf of its monarchs. It also spoke for a fundamentalist madness that had it both ways.” Like global media since 2000, it couched the act of Becoming inside the absolutism of Being, of knowing your place, or worshiping unrestricted capitalism as if it were Christianity in the first century:

Imagine the scripted spaces that we see in theming, in Vegas, in urban nostalgic planning, in computer games—also in cybernetics and game theory for war—turned into a Rapture for fundamentalists: the Bushie script promised eternal access to salvation through the middle class. But for that the government must erase all forms of social and cultural engineering since the New Deal (or perhaps since McKinley). Nineteenth-century imperialism was more God-fearing. The purity of nineteenth-century capitalism revealed biblical truth. Hallelujah brother, smite the evil.

Indeed, through the summer of 2000, this new system took shape in conservative headlines every day and grew into a Counter-Reformation after 9/11). To achieve the mission, George W Bush was literally being handled as Electronic Baroque special effects. And like all Baroque simulation, there was no problem about his style looking artificial. It was suggested that George W. Bush was honest because he looked out of place. An awkward enthusiasm was added to his honesty after 9/11, then a “heartfelt” response to the Enron scandal (another of his short speeches).

Of course, dishonesty is no longer much of a burden in the era of electronic Baroque. Apparently, there is no way to know internally how honest anyone is anyway. According to new theories in cognitive psychology, your brain does not chemically separate truth from fiction anyway.<sup>15</sup> Special effects as Artifice may actually be a biological fact inside the brain. If you can convince yourself fully that you are telling the truth, the hormones in your brain are well satisfied, enough to bubble along normally.

With that principal in mind, I studied George W. Bush’s face for a few days. I noticed that Bush slept very well, compared to many earlier presidents, who looked half-dead to the world after a few months. This was probably not a tortured man. I suspect that the hormones inside his brain were as loyal as the

family butler. Here in political terms was being without becoming, the glory of an unexamined life.

Nevertheless, Bush's unexamined look could have been a handicap. So, his handlers in 2000 marketed him as too naive to be dangerously reactionary, or even treacherous. Karl Rove and other spinmeisters on his team decided to pitch Bush as a compassionate naïf. They had to justify his goggle-eyed stare in front of the camera, while commentators kept noticing his clumsiness. In 2000, when Bush read haltingly from the TelePrompTer, he projected an over sincere "deer in the headlights" look. He reminded me of the animatronic Lincoln at Disneyland. One reporter called it "the soft bigotry of low expectations."

But after 9/11, and the "invasion of Iraq," he added a blunt give-'em hell style. At the same time, he put on the imperial ermine. He needed to mature, to come of age for the next "election." His new speeches were filled with lofty (and glitchy) asides about white hierarchy and classism on a global scale. This reinforced an uneasy alliance with fundamentalists. Meanwhile, being "profoundly" uninformed makes him a poster boy for offshore America; a feudal/Baroque disregard that has outgrown the borders of the United States.

Bush serves as the avatar for the U.S. global brand, for the growing number of transnational companies that never file taxes in the US, but harvest their profits here.

Consider what this means as an instrumental fact in 2003: The United States needs to be a coherent nation state to save itself. As of March 2003, New York City hovered near bankruptcy. The state of Oregon cut a month off its school year. Hospitals and fire departments were cutting back fiercely throughout the U.S. Iraq is already being treated as the next state of the union, even while the nation fractures into oblivion.

This post-2000 style of global illusionism fiercely resembles special effects in late-Baroque palaces circa 1740—where "visitors" to Würzburg were reminded that their prince bishop<sup>16</sup> was unreachable, not of this earthly kingdom. Media in 2003 is mostly obedient: a gas circling the presidency, part of the alliance of the willing. Despite worldwide marches against the invasion, we see military and legal alliances growing Bush's presidency. The war news often resembles graphic animation (abstract animatics about death in video—on the bombing). Dots as flares make impact on abstract bridges and streets. Bombing news resembles a wall on a German Baroque church designed by Balthassar Neumann or the Assam brothers—to puff up the grandeur, to intimidate through Artifice at the start of each briefing on the war.

What a shift in tone! Global news media had absent-mindedly sponsored Bush's candidacy in 2000, through cheerful disinformation; buried stories: white noise (classic evasive stories about GE calling the election early at NBC, about a general blackout of information on the black vote in Florida, about the blackout of the recount by September 2001). Indeed, since the Reagan years, if not earlier, the TelePrompter in American politics has become the talisman of power. The president stares into a theatrical machine that identifies the speechwriters and handlers as in charge. Staring into the prompter also means friendship, in the personality medium of television. Direct address gives the television screen its "intimacy." It speaks freely because it says very little. The audience gets the illusion that someone is looking them straight in the eye, really cares; but in truth, that someone is just squinting at a page of text.

The power of media texts expands beyond the nation itself. Like a monopoly, special-effects media and heavy industry have become inseparable, and transnational. Their combined presence has finally (and with great ease) evacuated the presidency itself. Whatever was once called the American belief in popular will—rule by vote—comes a distant second to entertainment as corporate illusion. Put another way: media special effects made possible the *appointment* of King George II Bush.

The election of 2004 may well be a coronation, especially if the Diebold voting machines alter the results. Can our constitution survive a simulated election? Its cave-ins after 2000 brought us two mostly illegal wars, and all sorts of monarchical head fakes. But is it still too early to call this total collapse? Can we shake ourselves awake? Bush as president-elect in 2001 waved at America with a look of surprise on his face. Like most Americans, I had lost many nights of sleep watching the crisis unfold. Something about the repetition of weak news only drew me deeper into the screen. At least forty-six legal actions ran at once. Clearly the Bush legal team was simply "running out the clock," not unlike the end of a fixed boxing match.

It was assumed that sample recounts would legally prove—as in Florida law—that manual recounts, as prescribed very clearly by law, would go forward. Somehow, they never did. Even though polls indicated that up to 60 and 70 percent of Americans were prepared to wait for the recount, news commentators, particularly on cable, kept announcing that "our patience is running thin."

Bush's team was merely doing what had worked in live TV formats since the Watergate hearings—to generate a fretful sense that the walls were closing in. Indeed, stretching "real time" is the hallmark of television as a crime

movie. That way, news takes on the immersive immediacy of special effects, like running away too slowly in a nightmare. The hallucinatory effect for viewers became addictive: no news follows no news; the clock kept ticking.

We should also understand this in a global context: endless news about international stock markets was interspersed throughout the election marathon. After all, transnational media is owned by men like Rupert Murdoch, by AOL / Warner, by Disney, by Bertelsmann. From that point of view, national news is dwarfed by the larger crisis of what world markets will “say” on Monday. The election begins to feel contingent on financial reports. With gamine and cheerful corporate faces, “hard” news has increasingly turned into a highly ideological brand of infotainment. And to add some spice, the message is couched by violent arguments reported in the pundit segments.

Within these seemingly adolescent encounters, the microphone presumably becomes the arbiter of truth. And throughout those thirty-seven days (and in the days since), the Republicans clearly dominated the microphone, particularly in Murdoch-owned stations (Fox News). The same stacked deck was evident in Florida, from the Republican legislature to Republicans showing the pace of counting ballots in the canvassing rooms themselves, to stalling tactics at court. Judge Sanders Saul, lingering for four precious days, had over a million ballots trucked up to Tallahassee, then refuses to see any of them. The U.S. Supreme Court, with three justices clearly linked to the Bush legal team, waits until two hours before the deadline (not even a real deadline, in fact) to call, the whole thing off.

While the U.S. Supreme Court listened to evidence, the mixture among the audience is revealing. Veterans from the legal team who set up the Christopher Commission Report in 1992—after the Rodney King beating in L.A.—sat next to Representative Henry Hyde, who led the impeachment hearings against Clinton. But the camera avoids these coincidences, barely covers Jesse Jackson’s rallies in Tallahassee, constantly reminds the audience that trusting in stable government may save us all. Pundits hoped for a short collective memory. They continually emphasized the need for order and timeliness. It was fiercely selective coverage—keep the audience nervous about running late, repeat let’s get started no matter who wins. Almost nothing about policy can arrive. Most Americans are still not quite certain what are Gore’s tax plans, medical policies.

Very little news gathering went on. The crowd menacing the Miami-Dade canvassing board was not interviewed in any coherent way—nor those outside who saw the van arrive, heard things (that would have taken no more than an

hour to gather). The *L.A. Times* ran a story where someone admitted to voting once in Florida (by absentee ballot), and once more in another state. A student in Wisconsin claimed he voted four times. Apparently, 36,000 absentee ballots in Indiana may be bogus; some are registered to dead people.

None of this, nor the voter repression and unequal treatment of African Americans in Florida, are followed up at all (certainly not for more than five minutes), compared to a hundred hours of repartee from political surrogates. Clearly, 60 percent or more of these “experts” favoring Bush, usually selected by the Bush team; or through conservative think tanks, who now become news providers for up to 70 percent of the cable news, and often still do in 2003. Thus in 2000, the news itself became a political labyrinth, a myth of freedom of expression beneath a feedback system dominated by business. Like TV psychics, cable news claimed to represent public taste, the public will, even the integral reality of the United States. But actually, it spoke for globalized special effects, that floats like a gas from one continent to the other.

However the Bush presidency will play its hand in 2004 and afterward—with some effect, no effect, or in utter gridlock—the American federal government will stay wounded for most of the decade, even into 2020. The crisis is similar to the election of 1876, when no president could be proven by the popular vote. The shock echoed for twenty-five years, and nourished a wave of Jim Crow racism in the 1890s. But today, the United States is the most powerful economic and military kingdom since the Roman Empire. This will go far beyond Jim Crow.

As of December 2000, it was clear that Florida was almost uncountable, but may have voted for Gore. Yet the media anointed Bush in the early morning after the election. It seemed improbable that anyone else could be president. Finally, a consortium of newspapers would fully count the votes in Florida. Along with various scandals in the mail-in ballots, and in the butterfly ballots and in African American ballots, the complete vote tally apparently indicated that Bush did *not* win in Florida. And toward end of September 2001, the results of this vote were to be released generally. For September 15, major news magazines were preparing to discuss the meltdown of George W. Bush, whose approval rating had dipped below 50 percent in August. Then with 9/11, all of that was repressed, on behalf of a grieving, traumatized nation.

For a moment in late November 2000, the endless wait for action and clarity had become a national joke. In a comedy skit on *Saturday Night Live*, the imaginary Gore surprises the imaginary Bush team, who declares: “I thought you were dead.” No, the imaginary Gore explains, “I only act that way.” The al-

legory of a dead election is constantly repeated; it becomes part of the crime scenario. Endless jokes that the election was stolen, or simply fell victim to alien forces. In “real life,” the imaginary president takes to the podium. The election as special-effects crime movie: after eight years of Clinton-watching as crime movie, from Whitewater to that inane Penistgate, the movie was re-scripted. The Baroque pageant began unencumbered by the fragile balance of power that used to be part of the American system. While the management changed reels, Americans were invited to shop for Christmas.

Advertisers breathed a sigh of relief. The country prepared for a horizontal split in authority: the presidency would assume a war-powers version of monarchy, while the rest of the country would be set loose in a feudal state of fiscal bankruptcy. It is possible that the bottom may achieve more democracy, while the top turns to Baroque hierarchy. Finally, by 2002, clearly the Bush administration had better relations with Russia and Saudi Arabia than with California. The colonization of America by its own economy had taken another step forward. Indeed, the world had left the twentieth century from two ends, as I often say—into the future and into the Thirty Years’ War (1618–1648), at the apex of the fundamentalist madness during the Baroque.

## Talk Show

There is a classic saying in American journalism: “If it bleeds, it leads.” If the news does not resemble crime movies, or at least celebrity scandals, the audience might flip the dial. That was certainly true of the election coverage on TV. While the Election 2000 shows ran wall-to-wall for months, they were more like a search for criminality than a detailed election. They relied on tactics seen in the Clinton impeachment hearings, or even in the O.J. Simpson trial.

Also, admittedly, the Florida vote fiasco was too over-melodramatic even for noir cinema. Long before the election, the coverage was already perverse. From the mid-seventies, a coalition of investors, many from the South, had been supporting conservative think tanks, that in turn had begun to filter the news in the nineties for cable channels.

Imagine a Baroque auto-da-fé turned into group therapy. The Inquisition explains which candidate is a mess this week, while the countdown for “the fire next week” keeps the audience glued to the screen. As millions of Americans noted, throughout this thirty-seven-day cycle, the policies of the candidates were rarely mentioned at all. Presumably, in terms of policy, Gore might win.

But if it became a question of character, Bush would win (he being the man of relatively unblemished character, almost in a state of innocence). It turned into a campaign about character, whose way of staring into the screen the voters ought to prefer. We essentially never learned if Gore's "fuzzy math" was actually fuzzy, or if Bush's math was a return to what his father called "voodoo economics." That would have taken research journalism. The media are no longer hired as journalists. They are hired generally as infotainment and talk-show hosts. Thus, the "spin" of the campaigns was matched by even more spin on TV. As a result, the viewer was distracted. The brawl and chatter between far right and very moderate left turned the issues into screaming fits and media-genic food fights, into blind theatricality. Oliver North was brought in to discuss constitutional theory; then years later, given a series on how Americans went to war, to prepare us for the heroism to come.

Special effects are not supposed to be too sugary. As I pointed out earlier, even Disneyland always added touches of *memento mori* to its attractions, some black light lifted from horror films, a few monsters between the cuteness, a haunted house with a version of Pepper's Ghost (projecting the hereafter through glass). Every big-budget special-effects film, even comedies, needs blood-soaked moments, whimsical Beetlejuice journeys into death. As the audience knows, *deus ex machina*: death is entertaining because Artifice makes the effect reassuring. The more artificial, clearly over the top, death coverage becomes on cable news, the more soothing to many Americans. Like all Baroque special effects, terror invites reassurance. The apparatus that delivers artificial death reveals the power of the prince.

One might ask, of course, is 2003 farther along than 2000? What is the absolute limit of this advancing crisis? Global media companies now sit at the table as equals with the nation state. Like yellow journalism in 1898, media can arbitrate wars, global business interests, warlord capitalism. Everything is breaking news. Time is getting compressed. Ten minutes ahead begins to look like long-range planning. Thus—to repeat—the United States Constitution was temporarily but severely restructured, through an uneasy alliance between a fundamentalist wing of the Republican Party and global media, to maintain a cybernetic blackout, in order to keep shopping alive for Christmas and remove more of the imploded nation-state from any restriction of business, if at all possible. Global capitalism can only succeed if it is allowed to operate in its own oxygen, as purely without controls as the Internet itself, the emblem of the Electronic Baroque, just as special effects are its civilization.

## Trauma as Entertainment: May 2, 2003

By April, the war in Iraq has “ended.” However, the mopping-up operation is busily falling apart. A news blackout continues. On May 2, Bush appears on the deck of an aircraft carrier near Iraq. He is reenacting the end of World War II. Like a squadron leader, his hair tousled, he poses in a flier’s suit. A huge banner draped behind him reads “Mission Accomplished.” He then delivers a canned speech. It promises years of costly and destabilizing occupation ahead. The whole thing reads like TV double-speak. A sunny commercial will announce the new miracle drug. At the same time, a voice over rapidly lists every possible side effect. Grinning soldiers crowd around Bush for a final media blitz, to squeeze more juice out of the trauma and confusion about to strike the United States.

Reactions to Bush’s flyboy scripted space are dull. A mood of neo-Victorian fussiness has taken over in the U.S., along with the opening of bland sequels to *X-Men* and *The Matrix*. The country is frozen in a *tableau vivant*—clearly a symptom. For the next volume, I will undoubtedly follow the history of trauma as entertainment, from 1620 to the present. We live from one revenge drama to the next.

Just as this book was in its final stages of production, the California recall election swept Arnold Schwarzenegger into office. His campaign, essentially a string of coming attractions, has momentarily turned him into a Baroque prince. It is both a parody and a coming of age of political special effects. Despite his take-charge presence on screen, “the angry streak” in California is still brewing. Its state government has been shrunken down to the size of a special effects movie. Meanwhile, another suicide bombing in Baghdad kills ten. Rumors promise a “gold rush” for American companies in Iraq. The news dissolves from one emerging improbability to another. There is no point even changing cameras. Nearly the same special effects camouflage all messages, from elections to shopping. What a perverse action movie all this will make ten years from now!

## 2003 Versus 2023: The Absentminded Future

In the 2003 edition, I describe a man entering a “smart room,” “where cybernetic timers control the lights, the shades, and more. “He joins “it.” “It” joins him. His house becomes a membrane, as alert to his needs as a special effect. In the

next few years, this miniaturization will become more apparent. Perhaps we will turn into one-celled animals. The collapse of paradox that all this implies is too fanciful. It will not happen. Something even more fanciful and risky will happen instead. I am no longer convinced that we are dissolving as a culture. Special effects are simple enough to humanize, though it will take time, while the next peculiar era unfolds.

As I complete this second edition, it is February 2023. I was too optimistic. That room with membranes has clearly arrived, but it is not a room after all. It is AI remaking our memories, our response mechanisms, our politics. AI will be the last time where neoliberalism can flourish on pure oxygen. But how long will that be? This book covers how scripted spaces operated over the past five hundred years. It focused on the West, but could easily now focus on the East as well. Today, the political impact of scripted spaces is accelerating. In 2003, despite its Electronic Baroque, the political uses of illusion were much simpler.

In 2007, I started a book on “the dismantling of the American psyche.” I then devoted sixteen years to researching how America’s psychic collapse might be stopped. But 2010, with its Tea Party gridlock, looked even more down that malevolent rabbit hole than 2007. Then came 2015, and 2021. Fighting this  $f/x$  disaster will require a very long game plan—easily another fifty years. That game plan will also require knowledge of the past five hundred years of scripted spaces—how the dialects of Western illusion were refined, even as the specter of the West dissolved into something else.



# Appendix



## Search Engine for the History of Special Effects

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By 1510, the fundamental elements of special effects *immersion* had been laid in Florence and Rome. They were housed beneath *domes*; one might call these prototypes for “virtual” systems later on. They were recorded through *Optics* that led circuitously to cinema, and engineered through systems of *Perspective*, essentially a Renaissance database technology. Even the *mirror* itself proved useful: it combined all these technologies into *spectacles*, through compositing.

In special-effects environments, the sum of these was an *inverted Renaissance*: proportions were upside down (*topsy-turvy*), the charm of harmonies gone awry. Essentially we recode the Baroque, but in the context of 2003. Why did the Counter-Reformation and the early modern state sponsor Baroque illusions similar to what we find today? Could it have anything at all to do with a crisis of privatization similar to those we find today? We test that theory, linking, by contrast to the nineteenth-century railroad culture.

*Public/Private*: In western Europe (1400–1700), the vast growth of merchants’ businesses generated enormous instability in royal governments. Some princes, like Henry VIII, allied directly with, merchant/bankers. French kings in the seventeenth century allowed the merchant/bankers into the nobility. Through the policy of bullionism, the Spain of Philip II tried to circumvent the merchant class altogether, perceived as too Protestant or Jewish. All of these princely alliances and misalliances play parts in the awesome grandeur of Baroque special effects. But the politics that supported these effects was extremely unstable, volatile enough to help fuel world wars from the 1520s to the 1790s. It also forced continual showdowns at the councils run by princes, as they steadily relied more on mercantile systems. These uncertainties, in turn, were reflected in public culture, the incongruent blends of mercantile spectacle inside the old feudal spaces.

However, one process was strangely consistent: Baroque *spectacles* tended to ignore whether they were indoors or outdoors. That is essential to their

charm. One could say that public and private spectacles were “blurred,” or that distinctions like *public/private* came later. Perhaps something of the debate on the “public” realm applies here, but so often, these categories can oversimplify the problem. Better to keep the matter simple: whether inside or outside, nearly the same theatrical effects were used, on behalf of the *Mercantile Baroque* alliance—between late feudal privilege and the merchants desperate to buy into the nobility. Living within this alliance were guilds of craftsmen, artist/engineers, various small tradesmen in design and painting. They relied on the support of this alliance for major commissions. Quite literally, this was an era when princes were sometimes descended from bankers, Jesuits became missionaries for mercantile illusion, kings borrowed much of the mystique of absolutism from the genius of commerce. Crews of artist/designers were employed to invent a style that made these anxieties grandiose. The space appeared navigable like a ship coming to port from the Americas, or from the far ends of the Mediterranean. Those kinds of spatial ironies suited their clients.

This new mode of scripted space first emerged clearly in the commercial city-states of fifteenth-century Italy, then, in centuries to come, was applied by early modern national governments throughout western Europe. The fashion amounted to an *occlusive* mix of animated sculpture, radical perspective in the theater, very *immersive* church ceilings and *spectaculo* (often political festivals). It was an *inversion of nature by Artifice*. This structural grammar—*three acts in two seconds*—could be housed inside churches, palaces, or in piazzas, theaters, indoors or out: spectacles, *fireworks*, *fairs*, reenactments of great battles, even the burning of witches (*auto-da-fé*). This structural grammar speeds up and globalizes much faster with the Counter-Reformation (*Jesuits* and special effects after 1560). But by 1600, it had evolved increasingly toward a secular blend of optics and theatricality, in France, but even more clearly in Protestant England and Holland, as commercial expansion in Europe shifted irretrievably toward the Atlantic.

Thus, Baroque special effects are architectonic scripted spaces where optics, sculpture, theater, mathematics, shipping operate like mixed media, where the charm of Artifice exceeds the harmonies of nature itself. This Artifice suggested a hierarchical, layered navigation of space, an allegory for the hierarchies of the *neo-feudal* world (the seignorial remnants that are no longer feudalism as it was, but are essential for the power of the prince, must be reinforced culturally at least). But again, these were unstable hierarchies: “Divine” right is filtered, not absolute. It is filtered through sensual optics

and twisted perspective—the technologies of the merchant. These tools now serve the merchants who also serve the princes, in the era identified with mercantilism.

It was a very clumsy early modern state. The institutions that used these tools overlapped unevenly between entertainment, business, and many authorities, from the Holy Roman Empire, to the guilds, to the power of the Vatican, to banking families across five cities, to tariffs along the Rhine—sometimes crossing many borders, sometimes fiercely inside the palace of the prince. They were public private in the way that this earlier modern state was public and private, partly “neo”-feudal, partly not. It was not nearly as insulated or unified as the industrial state by 1880. But our civilization may be approximating some of its overlapping structure. Today, as in 1660, special effects speak for a political culture where, business and salvation are integrated oddly, through overlaps between “corporate” bodies slipping uneasily between and without the so-called national government.

The occlusive effects during the Baroque era served as an allegory for the political convulsions of the day. Political authorities overlapped the unclear boundaries of very inchoate nations. Today, digital capitalism, and our special effects entertainments echo the collapses within nation states. Thus, we call the chaos neo-Baroque.

In much the same way, Baroque special effects overlapped the public into the private culture. Jaded pseudo religious spectacles—like an intimate mass celebrated very public events like sieges and feasts of fools, that stood in for mercenary armies on the loose, and a locust swarm of freelance businesses. Multinational privileges allowed Jesuits beyond the law. Medieval feudal laws kept slipping uneasily into the so-called “modern” national government. Inconsolable waste was the result, that squandered the national budget, twisted national policies.

Occlusive effects are often identified as Expressionist: occlusive lighting and camera movements. They narrate the lost point of view within an invaded self. A similarly lost POV was common in Baroque culture as well (*memento mori*). In many respects, the membranes separating public from private were extremely thin. This was a leftover from the late feudal experience that was still vivid in the seventeenth century. Think of occlusion as a bridge where a witch is put on fire, gruesomely melting public into private; the insanity of public faith melting her soul on earth. Think of special offices—like passports—to worthies from another country. These offices allow the bearers to invade public policy at will, as if there were no government at all. The Enlightenment

philosophes railed against these so-called corporate bodies. We today have media cognates to that. The boundaries of our interior life are freely invaded by transnational media; not to ignore how our politics are being destroyed through media. Transnationalism flourished during the Baroque era as well, and was honored in their special effects, in freakish religious spectacles about sieges and feasts of fools (collective madness as political ecstasy).

In Venice by 1740, all public festivals were privately run (through urban nobility, baronial courts), a kind of semi-national spectacle. They spoke for the madness of public/private alliances, again, in the interiors of palaces, in the staging of piazzas, in fireworks displays. The French engraver Callot, like all court engravers of the seventeenth century, was hired to record the dwarfs and the spectacle of the grotesque, in court and in piazzas, but also to record the sieges, the machinery of war for the prince he served.

How should we transfer the Baroque models of illusion from 1740 to our transnational culture today? One point is consistent: in Baroque scripted space, the rules of a guild might intersect with rules from the Holy Roman Emperor, or from theocratic, Jesuitical transnational corporate bodies. There was no legal way to separate public from private media (nor is there today on the Internet). However, beneath this “blur,” governments struggle to adjust, to balance public with private by way of spectacle. At the Versailles palace of Louis XIV, special effects could service ten thousand people at once—on behalf of the king’s fashions and politesse. Louis tried to convert venality (the offices of nobility, often for sale) into scripted spaces for his courtiers; many from families that had made war against his family during the Fronde (1649); they were indeed capable of setting up their own armies against him. Thus, while the courtiers drifted into theatricalized seductions (sex in the gardens) and lavish spectacles on the king’s island or in Versailles itself, Louis tried to balance their pleasure with his wars, keep aristos off balance.

The so-called absolutism of Louis XIV was a desperate attempt to offset unruly nobles with the glamour of mercantile technologies Louis was caught in a double bind—to keep those princes of the blood (cousins of the royal line) away from their home base, while at the same time, manage the growing pressures as the economy relied increasingly on, commerce. Eventually in Louis’s dotage, the court fled Versailles anyway, and after his death, by 1715, moved to Paris, to novelties more identified with merchant classes during the Rococo, the world of Watteau, and afterward.

What do Baroque scripted spaces tell us about power in our crazy world? As allegories, Baroque theatricals pitted feudal government against commer-

cial expansion; they suggested that the full integration of the two is impossible. Thus, the Baroque is an inversion of Renaissance *proportion* (the merchant city-state), on behalf of commercial expansion mixed with the Counter-Reformation (“their” *Cold War*), making the orderliness of proportion impossible to maintain, or even desire. In the Baroque, the Golden Mean is supposed to be subverted. As a culture deeply reliant on special effects, the *moment of wonder* is supposed to be unstable, a form of bourgeois revelers dressed in neo-feudal silks. Its public/private inversions (noblesse to merchant) continue to flourish during the eighteenth century as well—Baroque /Rococo illusionism in theaters, architecture, and *handheld optical novelties*.

Only the rather inscrutable shifts after 1780 put a stop to *Baroque special effects* (for the most part, not entirely). The painted dome seemed quaint by 1820, a *late Baroque* remnant; in England surely a bit too papist for the scientific “protestantized” scale in oversized *panoramas*. 1820 was already mass culture, for a patronage of paying customers, not of *haute bourgeois* or courtly patrons. Parallel shifts—in response to new technologies—can be found in theater, in urban planning (toward the city of circulation), in the all-embracing view. A new model for architectural immersion appears—panoramic, an unobstructed view, modeled in a quasi-scientific way, in detailed natural history etchings (circa 1770)—*anamorphic* more than anamorphic (circa 1640). As in Newton’s occult laboratory, his twisted studies in alchemy: when natural philosophers invaded metaphysics, Baroque techniques grew even more occluded, more overlapping. In that way, the Baroque era closed down, partnered with the Enlightenment. Through optics and science (even calculus), Baroque occlusion grew ever more “multimedia.” Finally, by the 1790’s, the panoramic effect removes the occlusion—optical vision is now unimpeded, an homage to scientific nature over Artifice, as far as the eye can see. And yet, panoramas were simply another mode of occlusion.

Baroque special effects were recoded as too feudal (larded over with seigneurial, hierarchical references)—not suitable for nineteenth century plain architecture, but perfect for gothic revival glam theaters, as pastiche. However, by contrast, Baroque optics remained appropriate, crossed in 1800 easily. Optics were much less identified with the Old Regime, and oligarchy. In short, the centuries-old alliance between architecture and optics splits in two after 1780, just as the old alliances between the late feudal monarch and capitalism were being sundered. As a related point of growing importance today: European mercantilism vanishes after 1789. That ends an occlusion of another variety, symbols borne out of European traders on the defensive—as equals in

Asia after 1500. There is a vast literature on how Asian trade still outpaced the West until 1750, as it had for millennia. Here lies a crucial distinction, many clues for us in 2023.

Asia's domination, despite the decline of India and China, took centuries to reverse (1500–1800). The see-saw in world trade generated a very existential response in European special effects—illusions about the anarchy on the Open Sea, about shipwrecks, piracy, Indian wars, maps of lost worlds, of chinoiserie (eighteenth century), as well as fascinations with the Muslim world after the French take Algeria in 1830. We see the power shifting very clearly in the eighteenth century, but only shifting. There are complicated reactions in eighteenth century China and Japan, in new dialects transmuted from the West. But that world-systems field of study is too overwhelming for this book alone. For clarity's sake, I will stay narrowed on Europe and the Americas, on scripted illusions within the white male continents. For example, there was no time to throw in chapters about Qing dynasty illusionistic landscape painting (tongjinghua) or trompe l'oeil porcelains. They reflected eighteenth century China forming dialects of the West, but also hollowing out. If I were starting out from scratch, I would have easily incorporated eighteenth century Asia. Instead, this book focused on “white” European civilization, leaving out Asia and Africa in depth; not even America in depth, more as frontier illusion to Europeans—until special effects from the Americas comes of age in the late nineteenth century.)

By 1851, of course (at the Crystal palace in London) European and American special effects begin to respond directly to how the West was swallowing up the world; holding five continents in a death grip for 120 years. Then comes the electronic Baroque, scripted spaces after 1970, responding to the anxious period after the European imperialism collapses. All that is for another book in the future ... one that I am actually completing at the moment. Thus, for clarity's sake, I follow a European timeline, next special effects during the “age of revolutions”.

The era after 1780 invents a technological alternative to Baroque special effects. Theater sets glorify the conquest of nature by industrialism. The shift took only twenty years. By 1800, many quadratura crafts simply disappear, with no generation of apprentices left to train anymore.

After 1840, the transition is even more evident. Many of the Baroque media were perceived as old-fashioned crafted illusion compared to photography, telegraphs, steam power beyond shipping and looms, steam-driven printing, stereography, magic lanterns, persistence of vision toys, automata. This

new tech steadily grows as an industry, toward artisanal factories for mass culture. Steam-driven printing presses (after 1825) usher in a golden age of mass publishing—along with the railroads, and vastly expanded cities and national governments. After 1850 in particular, we find larger symphony halls, more extensive newspapers, more bookstores, larger pubs, more reading societies, more Montgomery Ward catalogues, more dime novels, larger magic lantern libraries (up to 200,000 slides). Increasingly, after 1880, those effects are made portable enough to fit into street life, into this rapidly changing (faster) urban culture (i.e., the hand camera, small movie cameras). However, certain Baroque special effects continue to evolve. They are the hand-crafted aspects of Old Regime technology, before industrial processing. Special effects gave a brass sheen to many of these crafted illusions. The fantasy of this world hosts many gentleman scientists, in tales by Jules Verne, H.G. Wells, Conan Doyle, even Baum's Oz.

These Victorian special effects are both ultra-crafted (very Rococo), and industrial (through cast iron Art Nouveau molds). They even occasionally point toward Fordist assembly lines that do not yet exist—in the abstracted scale of world's fairs, the department store, the steamship line, the Cook's Tour. Armchair tourism embraces an imperialist model of illusion. After 1850, signage on boulevards announce the arrival of consumerism as an offshoot of colonial fantasies. Trolleys at city intersections deliver a phantasmagoria where time is trapped in a bottle. From the glass ceiling of arcades and train stations, evanescent light streams like a railroad timetable.

Increasingly, architectural lighting heroizes the nineteenth century metropolis. Principal downtown streets become arc lit after 1850. Their splendidly artificial glow extended the late afternoon for miles. City managers had to decide what time of day to simulate. Noon was too brilliant. Finally, they decided on the late afternoon, essentially on early twilight.

Meanwhile, a few relevant changes: As part of midcentury modernism, the Baroque theater of the streets is steadily torn down—or dies back—in many key metropolises. This goes far beyond sub urbanization. There is also a key shift in tone for many American cities: After World War II, the deco curves of 1920's downtowns are reengineered into right-angle flattened surfaces.

Behind all this, from 1850 to 1960, a technological alliance is forged, quite different from the Baroque. Industrial media transforms the fabric of urban life, for example, telephones, radio, victrolas; and large movie studios as a new mode of scripted spaces. This metamorphosis requires a much more plastic idea of time via telephones, cinema, radio, automobiles, subways; pho-

tolithography, etc. New styles of illusion are needed to promote this idea of flex time—as part of a new stage of capitalism—to the industrial nation state itself. Two partners nourish each other: commercial media and the boundaries of the state. They also help bring imperialism, and nationalist jingoism into the media world.

To help clarify this idea of illusion and time, we return briefly to the nineteenth century: The principal engineering of time came with the networking of railroads after 1850. The massive railroad culture was essentially the model for world's fairs and for monumental reliquaries (museums, stock market architecture) that honor this capitalist/national alliance. But this required more vertical modes of illusion. They operated like the valves of the heart. Like the chambers inside a Victorian house, or the policing and arc lighting of city streets, industrial spaces relied on very crisp distinctions between public and private. The narratives behind these post-1850 scripted spaces differed vastly from the Baroque; they represented vertical monopoly rather than the overlapping of power in the merchant companies of the Baroque era.

But again., the crafted tradition from the late Baroque continues. Industrial entertainment was provided by a nest of smaller companies, almost artisanal compared to Ford, Morgan, Carnegie, Krupp. Entertainment barely topped the Fortune 500 until the 1930s, and mostly because industrial companies slid during the Depression. Indeed, the fun factory, even at MGM, was not a mercantilist rival overlapping the state, not “Baroque” at all.

Some elements of Baroque architectural illusion survived during this adjustment to industrial special effects (1850–1960). We see them in merry go-rounds, and in amusement parks, in fun houses, in dime museums. Various optical illusions from Baroque era also find a place in cinema—perspective awry, as well as telescopic, even stereoptic miniatures; and of course, peep shows). These were survivors into the late Enlightenment (after 1750), then during the wars of revolution after 1789: automata, puppet theater, movable books, old carnival roustabout gags). Penny arcade peepholes serve as viewing platforms for the Edison's kinoscope (the birth of cinema in 1893). Thus, some Baroque curiosities do bond with industrial cinema. To a degree, Baroque curiosities and “industrial” cinema do meet. But eventually, the movie screen is so dominant, we lose that direct tactility, of a peephole, or a brass projector shining on a table, etc.

In public spaces though, Baroque and medieval systems continued at circuses, amusement parks, fairs, and of course in animated trick films. There are industrially made automatons; puppets. In film production, there is gizmo

compositing; trompe l'oeil; anamorphic lenses; mirror mattes; rear projection. But, again, cinema before 1920 was a tiny business, almost fly by night. Movies were produced by small artisan novelty company—dwarves inside the city of 1895, mushrooms next to gigantic symphony halls, panoramas, huge pubs, boulevard signage, and the hyper-stimulated roar of trains, and early trolleys. During the industrial takeoff, fully extended by 1890, cinematic effects that copied the Baroque were seen as part of the Gothic Revival; they were treated as medieval dollops, marketed like gadgets. Early nickelodeons do resemble penny arcades.

A touch of Baroque flimflam might help with a merry-go-round, magic mirrors; and haunted rides in Coney Island. A Baroque palatial touch helped glorify the vast proscenium arches for the new opera houses. A scrolled detail or the grotteschi looked classy in the entrances of apartment buildings. Finally, by 1905, these Baroque add-ons reached their peak in Coney Island's amusement areas by 1905. At night, ribs of light outlined phantasmagorical structures—in the shadow of roller coasters (simulated train accidents fifty feet above the ground). Towers in each of the Coney Island parks (Steeplechase, Luna Park, and Dreamland) stood like beacons, where past and future met. The towers, as high as 250 feet, were lit by hundreds of thousands of electric bulbs. Let us imagine that each era has its lighthouse of Alexandria, to be copied in architecture and entertainments alike. For entertainment and urban planning in the quasi-industrial city of 1890, this lighthouse was the Eiffel Tower, the Chicago skyscraper, the Otis elevator; then after 1907, the panoramic overhead inside an airplane, a New York skyscraper—or the imaginary that was Tatlin's Monument to the Third International (1920). They were a twentieth century answer to the Vatican dome, or to the yawning Rococo staircases of the period 1550–1790. By the end of World War I, the Baroque was forgettable, like the Hapsburg Empire.

However, in 1925, in Germany and the United States, that contempt for Baroque architectural illusion began to reverse. Special-effects environments came of age once again, on a corporate scale, in two films: *Metropolis* and *The Lost World*. Modernist imaginaries based on New York or on scientific dioramas (dinosaurs that walk) took on a Baroque grandeur. Architectural tricks circa 1650 (sculptural and foreshortened fantasy as a walk-through narrative) cropped up in production for these two films, in the improved miniatures, stop motion, “3D” mattes, camera work and editing. The success of *King Kong* (1933) should have ushered in a new era of special effects glamour. But somehow, the live-action effects divisions were still only a secondary bungalow, next to props

and costumes; or a “termite terrace.” The directors of cartoons at Warners (sub-contracted through Schlesinger Productions) were paid a tenth of what live-action directors got.

Then clearly, after 1960, despite the age of highly abstracted modernism, trompe l’oeil imagery reappears on a massive scale. It helps usher in the consumer themed space as early as the 1950’s, through Disneyland especially. But most of all, in the second half of the Cold War (1962–89), Baroque techniques prove useful—in trompe l’oeil and stereoptic projection; and in theming throughout the world. At the same time, at the movie theater immersive effects (accelerated perspective, widened middle ground) show up on the 70 millimeter flat screen. And on the drive to the multiplex, even the windshield of your car is another screen— where the inside and the outside are joined.

By 1990, immersive effects have systematically blurred media into brick and mortar on a scale never seen before. It is as if our homes were an undressed movie set. This collapse of public into private—as a kind of special effect—provides a master code for supply-side economics as well. Stock prices (as a way to buy other companies) replace industrial production itself. More and more fictional money aggregates on a master screen, where transactions are held. This screen, where so many intimacies are revealed, is also a graphic animation about capital investment. It is an AI timetable about false money—a scripted space. The world of investment, often called Casino Capitalism back in the nineties, most certainly operates increasingly like an AI game or a slot machine. We pattern our life increasingly as a derivative investment. Even our relationships become imaginary business friends, as the era of Facebook is replaced by the era of Instagram, and then of Tik Tok.

This sounds a bit like an episode from Black Mirror. We are indeed tourists in our own bodies. But the changes after 2003 also alter our sense of “Baroque-ness.” The differences between the Electronic Baroque of 2003 and the original Baroque of 1640 grow ever more urgent. Of course, the two are close relatives. They belong to the same phylum. They both camouflage the uneasy alliances between the nation and capitalism. Despite the utterly different technologies, they apply illusion in much the same way, have a similar grammar. Their transitions after 1800 tell us everything about where we are heading today. What they called *trucs* in 1640 echoes what we call *f/x* today. They both whimsically play with economic confusions. There is a clear arc in the history of special effects since the Renaissance. Feudo-capitalism in 1640 is the ancestor of global capitalism today. Historians have confirmed this arc, a nearly 400-year rock-slide.

This contrast between relatives has grown ever more vital since 2003. Today, special effects invade the senses ever more directly, from one gadget to the next. This has utterly warped the history of time itself. The original Baroque, as in shipwrecks from Rabelais to Swift, was often about medieval time dissolving. Mercantile technologies required a new clock. The past grew as wobbly as the contracts set up between monarchs and business. But it also monumentalized dynasties and religion.

The Electronic Baroque tended to erase these verities, however unstable they were to begin with. Its shopper's instantaneity delivered a consumer-driven replacement for Baroque time. This electronic nation state had a new clock designed by data capitalism. The masters of this clock were Baroque in their hatred of the states. They wanted to destabilize government. Partnering with tech was just as suicidal to the king allying with the bourgeoisie after 1500.

After 2000, the Electronic Baroque began to spin out of control. The public loved its toys anyway. But digital capitalism, especially the internet, was erasing memory of the present itself. Digital capitalism was all about "living in violet," in a plastic surgery of the present—The past and the future were in dieback like the oceans. Early versions of time warp were coming of age. In the nineteenth century, there were arcades delivering the so-called "Arabian Nights effects"—bottled light through glass. This warping of memory is featured in Benjamin's studies of the nineteenth century—of paramnesia while inside arcades with glass barrel vaults.

Glass ceilings announced psychodramas about the erasure of Baroque power—and the rise of the industrial nation state. The commodity took us on pilgrimages about imperial conquest and class warfare. The glass and steel illusion was neurotically triumphant. Finally, with the railroad after 1830, what little remained of pre-1800 ideas of time remembered became a dead issue. Invaded natural time. Imagine yourself at a train station in 1870. You keep checking your timetable. Signage guides you. Everywhere, light through glass reflects a new set of rules. Your train—whether in motion or at rest—has "conquered" nature itself. Time is now filtered through timetables.

This denaturing effect speeds up tremendously by the 1920's. There are novels and art about this denaturing of the moment, even a Baroque expressionism after 1906. That eventually finds its way into the cinematography of noir (1944 on). Imagine ourselves watching a noir movie in 1948. The title sequence resembles a printed crime novel, as if lifted from a newsstand. Then there is overhead tracking: an object city unfolds. Winding stairways and alleys—an

AI world of effects—replace nature. Even the skyline glows unnaturally from a naked light bulb. There is great risk, symbolized by a dumpy hotel room. The plaster and wallpaper form a skull that houses a brain. Dangerous narrative hooks are installed. Then a long flashback begins.

Eighties cyberpunk pushed this skull gag even further, toward nano noir. That was because capitalism was going nano as well. First, there were transistors, various prosthetic extensions of the body (TV, radio, Palm Pilots, telephones). These were miniaturized immersive environments, pocket-sized scripted spaces. Real streets became shrunken heads on a key chain, apps on a hand-held screen.

The parallels between 1600 and 2003 provide a range that we need. We must take apart a wide range of Baroque clocks that never tell good time. These clocks speak more about the collapse of our identity, where memory is colonized by tech. We even shop as tourists in our own bodies, through metropolitanized suburban planning; and now, the suburbanization of downtowns. The handheld illusion replaces the mall and the multiplex. And now, scripted spaces will glamorize AI robotics. We are now Baroque cyborgs, where perspective awry invades our private life—as promised since the 1950's. Scripted spaces are now matrices about a new kind of free will, where we are the program and the player. Intimacy becomes another form of public shopping. Public space invades privacy it-self (consumer privatization). Rules of intimacy are rapidly adjusting to a vast global shift. At first, this shift was toward a global supply chain. But after 2020, the covid pandemic warped our rules of intimacy even further.

In that shift, public space, as defined circa 1910, “dissolves.” By that I mean: the social imaginary called the public realm, so deeply associated with the growth of the industrial nation-state—and featured in metropolitan centers like New York, Paris, London—is dumped like so much refuse left unpaid at the warehouse. From public utilities to public streets, government is privatized on behalf of transnational shopping and tourism. At last, by 2000, the sum of illusions for sale amount to a world unto itself, a downtown alternative. This privatized matrix rivals the multivalent public spaces in cities from 1910. Digital capitalism pretends to replace industrial modernism, but after the trauma of covid, our special effects grow more solid, more physical again. The tangible grows too overwhelming for the special effects of the past half-century to hide anymore. A new species of Baroque is about to begin. But our sense of privacy has been utterly transmogrified.

Where does this invasion of identity leave our public culture today? At the end of this book (first edition anyway), I compared the Baroque mercantile public world of 1620 to 2003. But in 2023, we must confront the cybernetic maturity of this meta-consumerism. Is drone warfare a kind of computer game? How nano is this invasion going to go? Feedback systems have been added to special effects. The cybernetic imperium today uses the same optics and perspective on behalf of war machines and the deepest intimacies. Special effects, now as in 1600, tend to bear arms on behalf of a neo-mercantilist theatricality. But people do and will die. Once computer effects grew to assume the authority we associate with national government, they become even more essential. They were featured in the Iraqi retro imperialism of George W. Bush; and his eminence grise, Dick Cheney. This Bushismo tried reinventing nineteenth-century imperialism and nuclear gunboat diplomacy in 2001–2003. But it was greeted with dismay and disbelief throughout much of the globalized world. So whatever political atavisms arise with the new special effects, certain fundamentals cannot be removed. No matter how much homeland rule is anchored to the airports, or how much brinksmanship and saber rattling, the private sector will, in the end, dominate. An electronic feudalism (unsupervised chaos as all against all) will grow underneath whatever is left of the industrial state, much the way neo-feudalism in the seventeenth century could barely police itself.

Like a Christian fortress in medieval Moorish Spain, scripted spaces in 2003 lend imaginary order to electronic feudalism. On various screens, on faux streets, in our mind's eye, we walk through cybernetic puzzles about how political and moral power operate. They are precision tools for mercantilist definitions of identity. But to see how the gears work emotionally and phenomenologically, we must retrain our eyes. We have to study how the Electronic Baroque generates an intimate, but also utterly public, narrative for spectators, invites them to navigate inside a story where they are the central characters.

In Part I, we begin at the theater, inside narrativized architecture. The first act usually opens with a sense of shock, of wonder, a gasp of pleasure. Special effects terrorize with surgical irony, precision-tooled like the old automaton itself. But they also rely on omissions, evasions, absence.

So on behalf of absence, feel free to read this book inside out, like a sock if you'd like, try the notes first. They are browsers about absence—a picaresque of roads not yet taken, designed in anti-sequence as a trackless wilderness. Then try the search engine: it reminds us that there is a program behind simulation. And finally return to the chapters: through case studies, we tease out the

phenomenology of power that is the charmed life of the special-effects environment.

## Afterword for New Edition (September 2023)

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This book was completed in April, 2003, on the week that the US invaded Iraq. That date marks the end of an age, in terms of special-effects culture. Afterwards, most of all since 2008, media illusion has crept far beyond Vegas-styled architecture and entertainment. Special effects directly invaded our politics, especially poisoning America's elections, even its constitution. Across the internet, the charm of the lie—hoaxes, Artifice, Electronic Baroque—acts like a political death ray, not simply at MAGA rallies.

And in recent years, critics also worry about AI replacing cognition itself, as if we had already become AI. Parts of our daily life are freezing, as if preparing for a new ice age. As an ironic partner to this nihilism, since 2003, a new style of Baroque Artifice has thrown us into a violent style of interregnum, a kind of theatricalized Thirty Years War that is displacing tens of millions of people, killing those who don't flee.

At the same time in America at least, liberal elites and the public remain in drift. This stillness troubles me the most. It is a kind of anxious hibernation, doomsday as a special effect, a scripted space loaded down with premonition, but very little solidarity. The nineties post-Cold War enthusiasms are long since gone. The tangibility of our artificial daily life has become noisier. In Asia and Africa, the droning of drones feels like an invasion from Mars. A mindless aerial bombardment of civilians accompanies a land war that gradually extends from the Ukraine and Central Asia, to Israel, and the Mediterranean. Media illusions become ever more essential to doing business. If I were writing this book now, I would have to sharpen these point considerably; but still maintain the perverse whimsy of special effects.

Then there is a geographical shift. Special effects flourish outside the West, in the emirates, in East Asia. That brings us closer to where global politics is heading, neither east nor west in the old-fashioned hegemonic way. That

means building a template that includes the genealogy of special effects in the Mediterranean, in Middle Eastern worlds; and in China, India, Japan.

Globalization is quite different today than it was in 2003. It has mostly, even literally, run out of gas. We examine 2020 as capitalism changing its script. Thousands of container ships fell into nearly suicidal bottlenecks. Global capitalism shows almost no default mechanisms, no way to confront surprises. The path of those container ships was relentless more than efficient. Then we jump to 2023. The end of the pandemic did not entirely remove these bottlenecks. They sparked a worldwide inflation instead; and recessions in Europe. Shortages have also spiraled into a worldwide real estate crisis. This economic heart attack then inspired Putin to jump into Ukraine. He noticed a scattered confusion left by covid; and thus intensified his blind slaughter of innocents.

A new stage is obviously coming. Special effects will reflect its steady arrival, over the next few decades. This stage no longer privileges the western hegemony featured in this book. But what lies at the center instead? Special effects will have to fit into a planet that is more like a subaltern archipelago instead of a singular or bipolar story. Political constitutions are literally fracturing out like an equation in quantum physics.

That was definitely not so in 2003, not yet—even after 9/11 further shattered western confidence. Globalization was still worshipped. The Vegas nineties still kept shining, like the peace dividend after the Cold War. Not so twenty years later. 2003 globalization looks stitched together now, seems to be falling to pieces. Quite possibly, the land war from the Ukraine may spread to the Mediterranean. All this will amplify how unreliable global shipping lanes have become. Many trade arrangements will undoubtedly fall apart. A new wave of deeply authoritarian governments, like something out of the Baroque seventeenth century, will suddenly appear. Political chaos turns into a self-loathing nativism, an intransigent, rather insane business model. Thus will globalism Stage One wither away. This dissolve only showed initial cracks in 2003. The shockwaves would start five years later, in 2008; and surely will continue into 2050. We now understand how fragile the global chain of distribution actually is. This capitalist metaphysics is, in fact, nothing more than a patchwork. As globalization changes course, tightens and shrinks, the Electronic Baroque will grow more reactionary as well.

To repeat, the clues were already present in 2003, but were not as manifest as they are today. In the summer of 2003, western imperialism was still flaming out. The tragedy in Iraq, truly collapsed into gristly jokes, about America's ineptitude. The globalist high point was moving beyond its Vegas style for

scripted spaces. Now, entire cities and harbors were rescripted. Theming took charge of cybercurrencies and of Wall Street itself. A *pax tecum* for consumers was gone; dreams of democracies for shopping replaced by kleptocrats and oligarchs. The new tourist theming seems to echo tax havens and sovereign debts, has taken on a desperation not as clear in the nineties.

The year 2008 was the watershed for all this. The Crash of 2008 deepened the capitalist use of illusion. Cultural anguish naturally followed—the age of the precariat—an age of both disbelief and evangelical frenzy. That schizoid condition then spilled rapidly into politics across the US, Europe, Russia, China, India.

This was bound to happen. Special effects have been propping up financial industries and Wall Street from the seventies on. If The Vatican to Vegas were written today, it would emphasize more of that. There might be a chapter on derivative bonds, tax havens, surveillance and pyramid schemes. It would then have to review CSI since 1973 as a business coverup as well. In the eighties, I noticed a growing, unsteady misalliance between the state and capitalism, sponsored by media tricks—the Electronic Baroque. Now that misalliance is farther along, more like a hollowing out of the state itself. We have seen this head on since the elections in the US in 2010, after 2008. Now special effects have to make gridlock and mounting rage look normal.

After the election of Trump in 2016, Vegas seemed a leftover from a lost century. Now Vegas suggests the future of casino capitalism everywhere. Our social contract is undergoing skin erosion on the outside, while hollowing out on the inside.

The public has responded mostly by drifting into itself, in a desperate almost juvenile attempt to catch a breath. That makes our special effects more crazily intimate than in 2003, more about identity under threat.

The pandemic of 2020–2022 intensified the worst economic facts—growing inequality. The anxiety that this produces has sped up America's constitutional crisis. That made special effects theory very topical—a migratory target. We have to reframe terms like scripted spaces, social imaginary, *imago*; urban histories of forgetting. Below are excerpts (more like snatches) from lectures, articles, catalog essays, where I began to sense what these expanded possibilities might include. Meanwhile, this book has also appeared in art exhibitions, and critical writing by various scholars. The scripted spaces concept has influenced artists and architects. But all that is for others to discuss.

The excerpts from my writings since 2003 tell me one thing at least: they suggest a more internalized version of scripted spaces, more about materiality

and immateriality merging; and scripted spaces as ethnographic, about contested identities.

I also have written a lot about scripted spaces in cities after 2003. The centrality of Las Vegas in special-effects discourse has been replaced by mutations in thirty other cities, and thirty other regions (i.e. Dubai). As planning, these new special effects are meant to shield these cities from unstable national politics, toward a kind of hibernation. Urban planning uses illusion to hide from a new Counter Reformation. The result has been more artifice, and more suburb tropes added to inner cities. Beyond the skyline, we find an archipelago of little bourgeois townships; where growing poverty is camouflaged.

A last point: As for the post 2003 role of the internet, digital illusions are now our oxygen. All things are data bytes somehow. And out of all this meta-logic, a new universe will take shape, with or without our approval. It will be exhausting and exhaustive. I refuse to give up hope.

## Excerpts

### Cable News Becomes Reverse Imperialism (2017)

We look at 1968 to 2003, at least as masque (Electronic Baroque). What simple and obvious transitions do these public masques suggest, as of 2017? The democratizing presence of agitprop antics will continue, especially around matters of racism, and police abuse. Leftist rallies may occasionally operate as in the Twenties or the Sixties—as socialist mass theater speaking to power. But on a national scale, agit-prop has gone brownshirt, very-authoritarian. White supremacist (Baroque) masques dominate the news cycle. By that I mean Fox News as masque, as well as online social networks; in monumental defense of “white” hierarchies and conservative politesse. Those are theocratic special effects; they resemble 1640 as much as 2017. The Game of Thrones metaphors certainly point to a nation split horizontally. The echo chamber across politics and media vaguely reminds me of civil wars in the making during the early modern period. Old alliances are melting, as they did when Louis XIV was a baby, while Mazarin tried to unify the civil war France for its future king.

Cable news tends to reinforce a scripted illusion promising Trumpian absolutism in the making. On liberal news, like MSNBC, various pundits dedicate hours of programming to show how national and global markets must stop this absolutist tendency. By comparison, there is almost no coverage of cities

and states, barely even of international news. Hosts interview corporate CEOs as the Baroque princes in the midst of a Thirty Years War. Almost nothing is heard from national and local unions, or from wage earners; they are classified as “special interests,” nuisance makers getting in the way of global markets and suburban infeudation. In recent decades, Americans have (mal)adjusted to an intensely unequal class structure. They grumpily adjust to vanishing pensions, to a world without public support for declining hospitals and schools.

Certainly, my students talk almost obsessively about the shrinking middle class, about real estate apartheid taking over the Manhattan art world (and practically every major city), about the fiscal bankruptcy of almost every state budget—and their lives. They assume that oversight by the federal government—against this corruption—has all but disappeared. The shadow of Homeland Security appears to be depressing oversight; and replaced it with another illusionistic Cold War, this one against fundamentalism.

In talks, lately, I have called this process reverse imperialism. The United States is being colonized by its own economy (a faint but scary resemblance to the chaos that undermined nations during the Thirty Years’ War, 1618–1648). In effect, Trump punishes the state of California as a foreign country, a runaway. Constitutional relationships between states keep growing ever more balkanized. Interstate planning is now at a standstill. Rivers, dams, roads, health care are increasingly being ignored, as the balkanization grows. Every night on talk news shows, the mood of gloom keeps people tuned in. And there is plenty of gloom to go round; but surely that is not the point. Overcoming disaster is the point. I recently learned that thirty percent of Americans no longer believe in constitutional restraints to presidential power. These masques offer a future based on unstoppable post-traumatic, post-apocalyptic unease. The developed world takes for granted that entropy is permanent, because the future keeps aging faster than the present.

### **The Baroque Folds of Microdata (2017)**

For decades now, Baroque illusionism has supported transnational power under the cloak of entertainment, particularly on the Internet, and through digital banking. These folds of micro-data have damaged government. I see near bankruptcy at almost every statehouse; and underneath all of it, an agonized class structure. Finally, our cultural civil war welcomes a newly inept president, a schizophrenic kleptocrat. The nineties software honeymoon has shipwrecked. Still, what follows may not turn out as darkly obvious as Comenius’s

world during the Thirty Years' War, but then again, is that thirty years in Web time?

Digital capitalism has intensified how labyrinths manipulate our politics. Many nineties novels and films warned us that this was coming—fables about blurring matrixes and snowcrashes.

A Lab'rinth wild obscure, to lose one's sense, A *Wilderness* of thick Imper-tinence.

—Jane Barker (1723)

### Happy Surveillance (How does the analytics of illusion work?) (2018)

Digital surveillance is designed very much like the collusion in a scripted space. I realize one could also compare it to a digital panopticon, where the prisoners collude with the jailors. Eyes atop the guard tower are like the Eye at the center of a dome. They watch very openly, not hidden away by the FBI. It is Happy Surveillance through Facebook and Twitter. It let us play sneak-thief with invisible friends. Digital creatures peek out from behind the screen, like goblins in oak trees. We smush a tiny face; its drunken icon winks back. However, the wink is not human. Software only pretends to listen to our endless chatter. Happy Surveillance only pretends to listen. Its various apps stand in for God as an alien species—perhaps the Egyptian gods Anubis, Hathor and Bastet. The inhuman cat eyes mesmerize us. Meanwhile, back on Planet Capitalism, hacks, pirates and thieves rely on Happy Surveillance. They know how softheaded we can get. In E.M Forster's famous story from 1909, "The Machine Stops," God (an omniscient alien machine) demands that we confess our sins, then promises not to listen.

Happy surveillance can easily break apart into pluralism and nativist rage. Its users get fidgety, even potentially violent. They turn theocratic, worship repressive kinds of free speech. Everyone plays at being a victim. Varieties of collusion break apart into a thousand subaltern dialects.

### Globalized Localism from the screen to the street (2017)

With the erosion of the nation state by global capital, we enter a new special-effects version of the neighborhood street. The hipster shops may embrace a cityscape that is a hundred years old, but the order of the shops resembles intimate places on a computer screen. That screen helps us code the best way to

walk, like personalized dentistry. I was sensing this change just as I was completing *The Vatican to Vegas*. It will take fifty years for its script to fully manifest. But in the meantime, around the street, our constitutional system of government may not survive the wait. By 2030, we will certainly know.

### **Absence is Presence (2005)**

All scripted spaces rely in some way on absence as presence. That is also true of all narrative forms, including religious faith, prayer, sexual foreplay, funerals, even birth (for the mother, and the father). This moment of absence, like a movie dissolve, inspires partial blindness. A newborn slowly opens its eyes, but at first can't see more than shadows.

Absence inspires regret. Going through the news this morning, I read about military personnel who regret voting for Bush again, after what they have seen in Iraq. The mystery of seeing their political faith evaporate will have some future "affect." Bush's war remains a blank. Why I don't know. Americans are afraid to narratize their anxieties, like collusion inside a scripted space. They prefer to go forward in partial blindness. American militarism will end very slowly; as a scripted space filled with narrative rituals: the occupation of Baghdad, life in the Green Zone. Mercenary soldiers pretend to relinquish power in the absence of answers. Police forces in American cities are being issued military weapons left over from the occupation of Bagdad. Where can that lead?

Wartime in-depth news is so incomplete. Breaking news is all that remains. Coverage of terrorist acts becomes a replay from earlier wars, as a blank cipher. Anything can be written on it. Terror also stands in for risks in an economy and a political system that is increasingly fragile. The lack of information forces the creation of a scripted space. The war is losing ground (another Vietnam). Policies will get cloudier. Bush and Cheney have nothing to say. The blanks stand in for government pressure to not ask. In a great novel, such absences can be poignant. They are sensed when you turn to a new chapter. The next chapter opens a day after mistakes by the army were made. The downhill military slide in Iraq is slower than Vietnam, will metastasize for another ten or fifteen years. On TV outside the US, a street leveled by airpower takes on a naïve immanence, as displaced people gather aimlessly, a pause before the next "terrorist" war.

## How to Mummify a Scripted Space (2015)

Jeremy Bentham was the leading philosopher of Utilitarianism, and inventor of the panopticon. He famously requested that upon his death, his body be put on public display. This came to pass, and his taxidermized remains continue to smile faintly inside a glass display case at University College London. The original death head eventually needed a wax replacement. A genial Madame Tussaud copy of his tanned face still beams underneath his easygoing burial costume: a garden hat, a casual waistcoat and jacket; and a modest walking stick.

Bentham devoted his life to defending the everyday usefulness of science. But his actual death head was poorly mummified—according to a Māori formula. It rapidly shrank down to an apple core. Nevertheless, for over a century, it was respectfully positioned between his legs, inside the case, like a Holbein anamorphic signature. Now it must be scientifically preserved inside its own box.

Indeed, Bentham continues to look blithe and paunchy (pleasantly “engaged in thought”). He sits on a Utilitarian wooden stool. In recent years, a webcam (named Panopticom) has been sewn to his chest, to record the movement of spectators.

## Vegas As a Cyberpunk Slum After the Recent Crash (2010)

Are scripted spaces going to become ruins—at the edge of the next Great Depression, which is surely just over the horizon? Increasingly, in the news, Vegas stands in for unreliable foreclosures, as a hideout for unrepentant oligarchs. During the 2008 presidential campaign, Obama mentioned Vegas as a place where oligarchs felt at home.

On December 8, 2008 David Moberg, editor in-chief of *In These Times* wrote: “The casino economy (has) hit home for working families with a vengeance ... The casino economy had its chance, and it crapped out.”

Gambling or risk capital now meant simulated money. A digitized slot machine is meant to escape detection, because it operates at the speed of light. In 2009, in Congress, there was an uproar about finance swindlers. At a hearing with Goldman Sachs, Senator Claire McCaskill said: “You are the house, you’re the bookie...You even bet against investments set up for your clients...Selling short...Gaming the instability, enhancing it.”

## How Banks Script Your Money

From 1973 to 2008, banks (with flash drives) ran much of the American economy as a scripted space. The rules were similar to a casino, yet strange. By 1980, collusion had turned into more of a con job. Like a pyramid scheme, the program could cheat (if only by nickels and dimes) almost every player algorithmically. And that included mega corporate and pension investors. Derivative and junk bonds were hidden inside a vast, cloudy noosphere. The operation had so many places for hacking, it ran almost by dead reckoning. The script pooled wealth toward an international magnate class. Thus after 1990, scripted spaces become even more globalized. As soon as the Cold War ended, hundreds of new markets for special effects suddenly appeared.

This trickle-down market was dominated by a ten-thousand-mile supply chain, deemphasizing factories and production. The answer to instabilities was just “pretend.” Convince others that the risk is secure. Risk as a scripted space expanded the consumer-based economy. Production no longer had to be trustworthy. Flamboyance counted for more than stability. Just stay on your toes, because tis supply side approach runs blindly until it crashes. All you need to know is when to jump off.

Gold fever came with risk. Gambling with unsafe offshore oil rigs fattened executive bonuses. Unemployment had swelled to ten per cent. As one blurb explained: “Money men turned the system into a slot machine.”

And then, a year later, by November 2010, these attacks on finance almost ceased. Who legally dropped the ball? The sins by bankers to American sovereignty should not have been forgiven. But they were. Always trust the programmer who gives you the game. During election season, voters turned vigilante, but not toward business. Instead, they condemned the Obama government, for regulating at all. They essentially invited the arsonist to live rent free. While the arsonist’s fire raged, they beat upon the fireman (i.e. see Max Frisch’s play *Firebugs*, 1953).

Note 2023: Need I point out crypto currencies, etc. after 2010. I’m sure the reader already thought of that. Bitcoin was just getting started when I wrote this.

## Special Effects in the Courtroom and in Money Laundering (2017)

Scripted spaces are usually identified with themed environments. These evolved out of sixties shopping centers, and then dominated the globalist expansion of the NATO economy from 1991 on. But theming also reinforced global money laundering, deeply unstable jobs, and real estate gold fevers. I have always considered scripted illusion a narrative about power, but now I realize that it is also *ancien* (or *antigua* in Spanish, same meaning), a desire to become antique, a ruin in the making, the last of the breed, etc.

That means scripted spaces have become *memento mori*, dust on the tongue. They are a narrative grammar reinforced by globalism; intensifying the political authority of lies (fictions). We collaborate in the ruin of our infrastructure. This is a weaponizing, a much more naked instrument; far beyond diversions in the movies or on the façade of buildings. It layers and neutralizes. Overlapping authorities disempower the central government. Scripted spaces will make that political labyrinth seem adventurous; but in fact, it leaves national politics in peril, enhances a trend that I call urban industrial feudalism. This is not feudal as a system; it is feudal as a parasite, as an unsteady partner wrapping its many legs around the state. As a result, the one percent slowly acquire the divine right to evade government altogether. Tax revenues grow ever more unstable. Gradually, the US evolves a pawn of global investment; essentially turns into a colony of itself.

Thus, scripted spaces help to subvert justice as if in the courts. For example, we are impaneled to sit as jurors in a murder trial. A young man with gang insignia tattooed on his neck is accused of shooting down a girl. There just happens to be almost no physical evidence—mostly hearsay from police officers. The judge asks the jurors if they accept the principle of “beyond a reasonable doubt”—thus, are still prepared to convict based on hearsay.

In this scripted space, the judge explains, a crime will be simulated by the prosecution, but without absolute proof. Thus, “beyond a reasonable doubt” can still mean “probably guilty.” In violent crimes, there may be only one witness, almost no corroborating evidence. The judge and the prosecuting attorney want to make certain that no juror has qualms about voting guilty based on “hearsay” by witnesses, who were not on the scene.

The trial begins: within this scripted space, each juror takes a picaresque journey. The juror must volunteer, certainly not be forced. But the evidence that she will encounter will be raw (violent, a murder). The truth may seem at first

to be no more than a card trick. But eventually, the cards add up to murder by association. Thus, justice is uncovered.

The judge will guide (advise) the jury, show them how to read between the lines. Therefore, the judge's role is "*objective narrator*," not unlike a novel.

Prosecuting Attorneys serve as authors of a plot (that remains a fiction at first). Eventually, the plot is convincing. Prosecutors traverse the nuances of guilt within blank spaces between, where evidence may not exist.

The defense is the counter-author. It must prove this plot to be unsteady, a fiction.

Thus, all versions of the story are slippery to a degree. They are not irrevocably true or false. However, this uncertain plot has a finality. Once the jury reads the jury's verdict, all doubts—legally speaking—disappear. That is unless challenged to a higher court.

In Latin, *fictio* also meant "legal fiction." In other words, fiction was for Roman law, the best version of truth—a construction of events. Justice had to take certain leaps, if order were to be maintained. Evidence was a kind of clay. That clay was authored (sculpted in law), until it satisfied (or yielded) what actually took place. Thus, justice, in the strictest sense, did not have to be served. Therefore, within a trial, cheating and fictionalizing could be legalized as truth.

Democracies have a more chaste idea of *fictio*. For democracies, the jury's mind remains immaculate; almost metaphysical. That is, of course, until the Supreme Court and Trump's madness sweeps guilt into a dust bin. In the meantime, Americans still believe that jurors have every right to the last true word. Justice may not be poetic—too often not absolutely true; not even cleansing—but it is fundamental.

Note 2023: This was written six years before Trump himself was indicted and tried in four courts at the same time; 91 indictments.

The trial is a scripted space. Its program archives evidence and witnesses. The space between, those shadowy lost moments, must become very clear to the jurors. The construction of the crime must be surgical enough. Questions can be asked along the way. But the program itself is guided by the narrator (the judge) and two authors. The jury chooses one of two adventures.

In that spirit, at least as metaphor, the trial is like Huck going down the river. It is legal fiction, a picaresque that rises above fake news. It is a jumble of ironies that adds up to justice. No wonder that risk capitalism can so easily skate around the rule of law. Like Trump, the casino of profitmaking takes pride in its duplicities. And Trump's "base" loves him for it. That is the law of economic injustice inside the feudal condition.

## Globalized Localism Updated (2018)

The nation state is being eroded by global capital. That is hardly a secret. The effect of this erosion is to privilege the rights of localism—as well as a new authoritarian style of nationalism in Europe, Asia and the US. New varieties of scripted streets reenact this subaltern mess. The “old-town” street invisibly transforms into a hipster interface. Our little screens help us code and broker these streets, as we walk. The cityscapes resemble neo-Baroque architectural illusion more than ever. They subsume the urban rust of infrastructure, behind silos of vegan cafes, nostalgic saloons, cutesy boutiques; and in decades to come, more canopy trees. The “hipster” street must be “actual.” Its cityscape dates from no later than 1920, with twisted brick or cobblestones. Residents walk through these historically uneven sidewalks as if through a movie set.

Brick and mortar—even peeled store fronts are sealed with a polymer coating. Petrified ruins are making a comeback. Worn streets become shiny, as if no one had walked on them yet; like a museum shop more than a museum. As I often say, we first became tourists in our own city; and are now tourists in our own body. These historic streets gloss over their memories as evolving slums. They even remove the culture that streets used to provide. Of course, that is inevitable. The crowded newsstands are gone, the chatty bookstores, the raunchy music cafes, the bug house squares and atheneum lecture halls. The sheer orality of streets from 1850 to 1940 has quieted down somehow; whether the street is crowded or not.

The old city is now part of a suburbanized logic. This speaks to more than just streets. Guessing how much more is quite a puzzle. At the risk of oversimplifying, let us say that the simulacrum (the startups and tiny candle stores) is no longer a copy without an original. That was already true in the eighties. Since then, the copy on the storefront is itself the original. We have finally entered a new civilization of Baroque Artifice. We drift past a 1940's bowling alley, a 1920's barber shop, a bar inside an old five and ten. Everywhere, a coat of old paint seals the patina as if in amber; along with naked support beams. Who said noir isn't cute as a bug? A restored neon sign reads “the coldest beer in town.” Indeed, on this street, preservation is simply the original. But its *more than authenticity* is overcoded—self-consciously artificial, packaged in straw like bottles in a wine cellar. It is made to look as if no one has moved in yet.

We have entered a very different bourgeois script for inhabiting cities. Clearly, economic shocks could make a joke of this script. However, it will take

fifty years for that joke to fully manifest. In the meantime, our constitutional system—everything that ties cities to the nation—may not survive the wait. Before 2030, as early as that, we will certainly know.

## Vegas (2011)

After the crash of 2008, many suburbs in the US essentially died. Lake Las Vegas, a wealthy new township seventeen miles from the Strip became a suburban ruin. Only Phase One, 1,600 of its 9,000 units were completed. Investors in Phase II were duped of at least \$150 million dollars. The brand-new casino (MonteLago) had to be closed, along with two luxury hotels, a huge lake and marina. For two years, bankruptcies were the only business activity.

By the summer of 2010, the scene was breathtaking. With temperatures at 110, desert haze revealed mountains scaled far back. There was nothing close by, only the Strip. On blank cul de sacs, hundreds of detached homes were scattered, as if due to the black death, or an invasion by Aztecs. After the Crash, practically everyone had been forced to leave in a hurry, almost before the paint dried.

Many structures remained only half built, like movie sets, with lumber stacked, and bare frames. No signs of decay were evident yet. The landscaping was still being maintained, in case a financial sunrise returned one morning (if the bank finally allowed money to come back).

Occasionally, a lonely but fancy car was parked, usually a Beamer, just one per each block. Someone apparently hadn't been able to escape in time, or was still able to pay the mortgage.

By 2009 (three months after the Crash), half the real estate in Clark County was “under water,” was in debt more than the property was worth. As of 2011, Nevada has the highest unemployment (over 14 percent), and the highest foreclosure rate in the United States.

This reversal of fortunes tells us so much about where the United States is heading, and where Americans once imagined they were. However, we must *not* identify these scenarios as cyberpunk or even ominous. The problem is more about adaptation: Somehow, people in the US will reinvent how narrative is written (in print, in film, online); and how politics evolves.

Considering that the US was the largest economic kingdom (not empire) in the history of our species, these points of impact are still rather pale. Transitions this grand usually require a world war to complete, something like a full eclipse. The Crash of 2008 was, in fact, no larger than the Crash of 1987. By

the same logic, I suppose, the Crash of 1929 was not as overwhelming as myths suggest. The real drop took literally two years, by 1932. Economists tell us that the Depression was more the result of trade wars, worldwide attrition, and the refusal by the Hoover Administration to loosen capital.

Pre-code Hollywood films offer clues that may help. The Great Depression on film took three years to start. Until 1933, most Hollywood movies (and most novels and newspaper coverage) were still about encountering the 1929 Crash; as a victim or by finding a way to recover, to get rich all over again. Then in 1933, those fables and bible tales ended: Depression culture arrived, particularly from Hollywood. In the classic trope, *Golddiggers of 1933* opens with Ginger Rogers in a peek-a-boo outfit, wearing huge silver dollars, singing “We’re in the Money.”

If there is a three-year lapse time between crash and depression—and perhaps our depression will be unique, different from the past century, then there must be clues in 2012.

### Scripted Cruise Ships Close to Shore (2017)

We take a charter gambling cruise from Catalina Island (off Los Angeles) to Baja in Mexico, a short hop really. The dealers are often international, foreigners who are highly mobile themselves. Many are trying to raise some cash to take home, because money is short everywhere. They are like sailors in 1840 circling the Horn, but in this case, the sailors never really set to sea. The rules on these cruise ships are looser than Vegas, and cheaper—lower stakes, simpler fare. Disney Cruise Line has two ships in its flotilla: they offer bingo instead of gambling, to protect the Disney brand.

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(Of course, in Las Vegas itself—and in Disneyland—the proletarian amusement-park style is also back, much cheaper funkier.) At the MGM Grand, in a plush spot, a banner offers everyone a second bottle of liquor free—next to racks of tee shirts one might find on the funky Venice Boardwalk. But who gambles when they’re that drunk? At New York/New York, I see cheap candy for sale, like the Coney Island boardwalk of my childhood. On a poster, a show-girl dressed as Marie Antoinette says: “Let them eat candy.”

## White Noise as Special Effects (2017)

Globalization has pluralized the world more than globalized it. It has fractured industrial coastlines into a late medieval archipelago. Coastal metropolises now operate as independent city states, like New York, London, Hong Kong, Los Angeles Rotterdam/Amsterdam, Tokyo, Singapore, Dubai, and Seoul. Within these city states are urban laboratories: little ribbon districts about four blocks long, scripted spaces in gentrified hipster neighborhoods.

These ribbons operate by a nano script: They are non-centered like white noise; like intelligent particulates floating inside a gas. Or black data with no bottom.

Imagine a constitutional crisis creating granular urban isotopes. Trump's incoherent, sociopathic presidency is adding even more broken fragment; more economic and social inequality. Master planning from Washington has been fading since the eighties; this has spawned a rapidly growing regionalization—and a violent grievance culture. Thus, these re-newed city states are infighting themselves, turning into three separate kingdoms in the US.

So too in the UK, we have London trapped between continents after Brexit. In Germany, a vastly weakened central party fights to hold on. In Spain, there are renewed threats of secession by Catalonia; in France the failure to come up with a popular movement to address their postcolonial crises.

There were also presidential embarrassments in Brazil, and for a year, in Korea, but they arrested and removed their Trump. Somehow, we have entered an age of too many kleptocrats, from Russia to Washington DC. Granularity is a better word than pluralism here. The sandy bottom encourages tax havens, an invitation to steal.

This pluralism also blurs the line between fact and fiction—the imago or collective mental picture. Facts on the news are dissolving more rapidly every week. Political folklore is exploding.

Like flags with skull and crossbones, this ship of un-state features black data and runaway surveillance. Everywhere, I see initiation rites for new kinds of pirates and vigilantes. Rightwing news loves Artifice, has a theocratic desire to be lied to. Everywhere, one is struck by a faked metaphysics, a speculative escapism. This reinforces white nativists, vigilantes, runaway populism, grievance culture.

I am reminded of a quote from historian Margo Bistis about the utopian philosophies of 1900, especially pragmatism from William James. She writes: “What is left of the future, and how might we use its tattered conceptual re-

mains—remnants as I call them—to fend off the feudal abyss of the neoliberal Global Order?”

The Baroque immersions in America during the eighties and nineties, so much a part of *The Vatican to Vegas*, tell us that themed spaces were a solvent dissolving national policies. New dialects of this disaster has since found their way to the Emirates, Hong Kong, Shanghai, Mumbai, even Teheran. Authoritarian governments rely on pluralism, but will be undone by it, in the end.

Los Angeles has been thoroughly redesigned structurally by this post-Cold War, since 1997 (after a vast recession in 1992–1995). Southern California is now an arterial economy isolated from the federal government. Its networks grew along a supply chain from its harbors. It is increasingly a crossroads city, an integrated region of eighteen million people; linked (hardwired) to three continents—ethnographically, economically and culturally. We have not seen urban Baroque kingdoms on this scale—or as arterial—since the fifteenth century. And there are dozens of them throughout the world—a Hanseatic, sculptural hyperspace.

On the seas, container ships are Baroque white noise. Carrying ten thousand containers, the ships unload at ports, while hiding their dehumanizing effect. They particularly erase labor and political interferences. What in the 1990s looked more like the adventure of Flow (of branches instead of boundaries) has evolved into a fragile scripted space. Will these sociopathic ships “care” if the nation collapsed? Those who program them have no interest in setting up defaults for emergencies. What will the trigger be, that spins this lack of preparedness into collapse?

### More Baroque (2018)

While I speak of the Baroque as a contemporary phenomenon, I also mean its ancestors, like flora in its stomach. A DNA that persists even today flourished during the centuries when feudalistic pluralism was at its peak in Europe: 1600–1780. Like bloodied prize fighters, there were two dangerous factions that were also sometimes partners—the mercantilist bourgeoisie as both friendly vassals and sworn enemies of old feudal monarchies. Both of them battled against a common obstruction, the feudal nobility, who wanted to dissolve the state. What resulted, amidst countless, gruesome disasters, was an unsteady alliance between merchants and the crown. This alliance created endless frictions. And from this friction, there emerged architectural noise. We see it in Baroque palaces—intricately suggested by the flamboyant stucco and layers of

domed illusion. The raw deal is even more apparent in Baroque theater design, so *raffiné*, but thoroughly corrupted by noise, perhaps from a disdainful aristocrat, seated in a box directly onstage. Then came the thrum of expensive effects. What does this noisy immersive Baroque setting tell us—then and now—this flutter of special effects, in 1650 very nautical, like sails in a shipwreck, throw-away details in the corners and underneath, overhead. The noise is filled with morbid and comical, but expert, uses of Renaissance business software (mathematical and nautical perspective), but on behalf—in promotion of the king. Neither side trusted the other, any more than global capital trusts the nation state today.

There lies the heart of the Baroque, then and now. Baroque special effects are architecture within that subjunctive tense. In the Baroque period, these effects spoke to unsteady alliances between capital and the state. Their tonality was corrupted by spectacular noise (that unsteady alliance). Baroque storytelling, then and now, is always filled with the folds made by evasions, secrets, and political scoundrels.

### **The New “Baroque” is a Long Durée (2015)**

We live in a state of permanent feudalistic disorientation, enhanced by derivative financing; by investments that hyper leverage special-effects money; by flash trading. It is fair to say that so much data is on clouds, the needle itself has become a haystack. With all these island stacks of data, a rapid degeneration of the state cannot fail to continue, like boring holes through government. We respond as they did in Baroque eras—we adapt through very unsteady alliances. For example, in response to encroaching chaos, urban life has gone more local than its cosmopolitan façade suggests; into feudalistic hipster towns within a Baroque urban core; like tariff gates along a road to a Hansa city in 1600. Each tariff ribbon is about five blocks long; each brief ribbon is an offshoot of uptown mega-wealthy freeport zones, where all forms of piracy are commodified.

Hipster townships pretend to survive in a farmer’s market version of the craft economy, presumably below the radar. But in fact, the radar is mostly about “happy” consumer surveillance inside a gig economy. Meanwhile, across the US, from town to suburb, a scripted space as cultural dissolve has practically eradicated (subsumed) many older forms of art and literature, certainly journalism. Of course, this is undoubtedly another historical stage—like the one that preceded the Baroque. A quasi-feudal interregnum persisted for 175

years, after the Black Death pandemic; until the great blowup truly began, after 1516 (the Reformation wars).

### Updated notes on “The Screen” (orig. 1983, updated in 2019 and 2022)

The computer screen is scripted space in generally flat multiple-layers. It is like sixties animation optically printed, with tectonic pulses announcing themselves. However, a million ant farms somehow coexist underneath this abstracted computer screen; privatized, yet very much in public. The interface on the screen itself operates as a scripted two-way mirror. It watches us, as in analytics, Happy Surveillance and AI. The mirrored surface itself is rather formalized, in an evening suit, but also a bit naughty, like window peeping—while looking shy and polite, like the folding screen for undressing in 1900. We feel ourselves being intuitively handled; we act like a voyeur inviting voyeurism. In other words, the tactility of the screen is still analog, because we sense our body invaded, as if by fingers. The touch of data upon us feels as tangible as clothing, as powerful as drones on a bombing run. We often try to cover up our spectral nakedness—screen off more of ourselves each year, to protect against hackers. We are endlessly on the defensive, but must pretend that we are masters of the scripted program. Immersive spaces that are engendered by data remain as oddly sculptural as cryptocurrency. However, this Vegas-like faux money will disappear like a night of heavy drinking at a bar.

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## Notes

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### The Vatican to Vegas

- 1 Interview, Peter Bandurraga, 1993, director of the Nevada Historical Society, also curator, scholar, and editor on Nevada history. Of course, urban legends are quite difficult to confirm precisely, particularly about shadowy subjects like prostitution in casino hotels.
- 2 Lecture, William Eadington, 1993. Professor Eadington runs an institute devoted to research on gaming. It is located at the University of Nevada, in Reno, and has published many volumes for decades now.
- 3 Apparently, student actors are often hired to play Mickey, at slightly higher salaries than workers at the park generally, and with a credit that might help in a theater resume. I have heard various stories about the alienation it sometimes brings. In one extreme case, the performer threw up inside Mickey, but had to keep going for a while. Generally, it is a desirable summer job, though.
- 4 In the anti-tour, we only visit what is missing as in *The History of Forgetting*.
- 5 On the term *Electronic Baroque*: As one subset of my research, I wanted to test whether contemporary designers actually were scouring through Baroque imagery more than they had, more than twenty years ago—and not simply as postmodern affect, but as part of the trend toward cinematic architainment. I titled two essays “Electronic Baroque,” used the term in least three other essays, and at interviews with architects and designers at the Scripted Spaces Conference (based on my work) at the Art Center College of Design in 1998 (with vital support from Prof. Peter Lunenfeld, who co-directed the conference with great enthusiasm, wit, and intelligence); also during fifteen other talks, at a variety of sites—and interviews—from Xerox Parc in Palo Alto to the Architectural Association in London, and at a lecture series in Austria in 1998. The term sounded

almost familiar, like a summary of strategies, to essentially every specialist I met in the fields of narrative architecture, movie effects, digital design, the gallery arts, photography, even ethnomusicology; and I have received a number of responses since, on Baroque references in contemporary cinema and architecture, beyond the work of Peter Greenaway, the Brothers Quay, Svankmejer, or the art direction for films like *The City of Lost Children*, disaster films, fantasy spectacles. To summarize the linkage that all this chatter suggested: First, during the late 1990s, with terms like *neo-Baroque*, the Baroque tradition was treated as more than an ironic aside. Many designers sensed a kinship with the production methods Used for Baroque churches and residences, in these earlier large-scale collaborations for what essentially was a scripted walk-through, much the way films or casinos are built today. Also the Baroque emphasis on the spectator (i.e., Bernini's *The Ecstasy of Saint Theresa*); and the merging of sculptural, theatrical forms in highly charged ideological settings.

- 6 The Moorish style of the twenties in L.A., like the Egyptian (or Egyptoid King Tut) style, and the Mission Revival style, were all part of a larger statement about the fast-track emergence of southern California after World War I. They all spoke to an oasis where all men were sultans, plantation owners, an imaginary hegemony for the desert getting its water, growing into an oil giant, into a city of a million by 1923.
- 7 Architect and painter Sebastiani Serlio; his handbook of 1545 is cited often, was translated into English by one of the key figures in the study of sixteenth and seventeenth-century scenography; Allardyce Nicoll, *The Renaissance Stage: Documents of Serlio, Sabbatini and Furttenbach*, ed. Barnard Hewitt (Coral Gables: University of Miami Press, 1958).
- 8 Painter Fra Andrea Pozzo's *Perspectiva Pictorum* (1698) was a standard throughout the eighteenth century; particularly for techniques of trompe l'oeil on ceilings.
- 9 Architect Joseph Furttenbach the Elder (see *The Renaissance Stage*, cited in note 7) wrote three influential treatises on the broad subject of illusion and perspective (1628, 1640, 1663).
- 10 By the "kit," I mean cartography, anamorphosis, astrolabes, advanced mathematical treatises on perspective, the manuals by Serlio and others on scenography, advances in mirror technology; various camera lucida and obscura devices (Porta, etc.), mechanical aids using windows, string, candles; tools modeled on windows to standardize foreshortening for painting as well as fortification design; the evolved dome that

- Brunelleschi helped initiate; the theatrical, machine in Italian masque; a flood of manuals (*pratica*) on camera obscura and mathematical perspective after 1550, for example, as catalogued by Herman Hecht, *Pre-Cinema History: An Encyclopedia and Annotated Bibliography of the Moving Image & Form 1896* (London: Bowker Saur, 1493), and more.
- 11 Among Leonardo's many contributions to theatrical spectacle, in 1491, he adds his touch to the wedding pageant for the Sforzas; in 1490, he creates designs for the play by Bellincioni, *Paradiso*. His theatrical talents were esteemed: "a rare and masterful inventor of every fine and novel thing in delectable theatrical spectacles." Martin Kemp, *Leonardo da Vinci: The Marvelous Works of Nature and Win* (London: J.M. Dent and Sons, 1981), 167–168; see the chapter "The Exercise of Fantasy." For a solid review and primary-source bibliography on Leonardo's philosophy of optics and illusion (artificial perspective), see Donald Sanderson Strong, *Leonardo da Vinci on the Eye*, based on a manuscript at the Bibliotheque de l'Institut de France, in Paris (Los Angeles: UCLA, dissertation, 1967).
  - 12 Leon Battista Alberti, *On Painting*, tr. J. Spencer (New Haven: Yale University Press, 1966, rev. 1956), Book I. Original title *Della Pittura*, 1436.
  - 13 The realm of fantasia was the site and process of imagination. Martin Kemp, *Leonardo da Vinci*, 160–163.
  - 14 Leonardo's alarm clock was water regulated, and yanked the leg of the sleeper, as if by a ghost. *Ibid.*, 170.
  - 15 Alberti, *On Painting*, Book II. On p. 72: "Istoria gives greater renown to the intellect (of the painter) than any colossus. Bodies are part of the Istoria, members are parts of the body, planes are part of the members. The primary parts of painting, therefore, are the planes." Leonardo is quite clear on this narrative implication: The journey implied by light (*lux*) is a special effect, like light through camera obscura, similar to perspective awry as anamorphosis. This navigation by the eye takes on a philosophical, occult meaning similar to a "progress" (a search toward revelation). Thus, he helps give birth to Renaissance natural philosophy as part of occult engineering; in other words, engineering and architectural effects as a story form. From here, humanists a generation later (Marsilio Ficino, etc.) add Neoplatonic references, lending even more narrative coherence to the theatrical machines and perspectival trickery so popular by 1550, and afterward.
  - 16 Mantegna's *Camera deli Sposi*, at the Gonzaga Castle in Mantua, arguably the most influential source for special-effects painting during the early

- Renaissance. See also: John Shearman, *Only Connect: Art and the Spectator in the Italian Renaissance* (Princeton: Princeton University Press, for the National Gallery of Art in Washington, Bollingen Series #37, 1992), 168–170.
- 17 Pope Gregory VII (Hildebrandt, 1020–1085) morally and politically reformed the Catholic Church, “de-sacralized” the power of the kings, and standardized priestly chastity. His reign set the outlines of the medieval papacy for two centuries. He was beatified in 1584, canonized in 1728.
  - 18 The Penance at Canossa, in an Alpine January, 1077: King Henry IV of Germany (also Holy Roman Emperor) had been excommunicated, and afterward was weakened among his princes; thus he spent three days barefoot in the snow to *beg* audience with Gregory VII. Henry’s love interests, and struggles with the papacy, were turned into avant-garde theater in Pirandello’s *Henry IV* (1922).
  - 19 Sacrorum Concilium: lifted from the title of one of Gregory VII’s massive bulls.
  - 20 I mean *surreal* here in the sense of disjointed elements from daily material culture, quotidian trompe l’oeil, as a visual journey to remind us that we are dreaming on our feet—essentially as the Parisian Surrealists of the twenties applied the term, rather than in decades since.
  - 21 Ways of seeing: a term popularized by John Berger’s seventies television series and book of the same name, *Ways of Seeing*. More recently, terms like *ways of seeing* have been resurrected, to discuss the modality of the visual—as in “pre-cinematic” theory (i.e., Jonathan Crary); film archaeology; art history on optics (museum shows like “Devices of Wonder,” at the Getty in 2002); Rosalind Krauss on “the optical unconscious”; Lacanian theory and visual codes (anamorphosis); digital theory; Virilio’s stream of books on dromadology and the vision machine. How indeed do we accommodate our visual codes to technology coming in (and the power it wields)? And how is this power accommodated to suit us?
  - 22 Johan Huizinga, Dutch neo-Hegelian historian (1930s and 1940s), author of *Homo Ludens*, *The Waning of the Middle Ages*, and *In the Shadow of Tomorrow*.
  - 23 Fiction invading fact is often identified as a characteristic of “neo-Baroque,” of polycentrism, as Angela Ndaliansis explains in her thorough *Neo-Baroque Aesthetic and Contemporary Culture* (2005). Neo-Baroque studies often refers to seventeenth-century Spain and Latin America (Maravall, and amorists reevaluating his work, like Severn Sarduy). It also channels the 1890s to the 1930s (Ndaliansis cites the Magnasco Soci-

- ety). By the late twenties, the term *neo-Baroque* was all the rage” (Ndalianis and Calloway). The scholarly rediscovery of neo-Baroque (re: media, global consumer culture) came primarily through the book *Neo-Baroque: A Sign of the Times* (1987), by Italian critic Omar Calabrese; then Stephen Calloway’s *Baroque Baroque: The Culture of Excess* (1994); and the anthology, *Visual Displays* (1995), edited by Peter Wollen, where cinema as Baroque is examined. Also, various pre-cinematic studies (i.e., Tom Gunning). And the renewal of interest in Rudolf Wittkower’s art history; Deleuze on Leibniz and *The Fold*; and the architectural, histories of Manfredo Tafuri; also Scott Bukatman and Vivian Sobchack film studies.
- 24 Henry Selkirk is an obsession of mine, and appears also in *The History of Forgetting*. I am convinced that we are at a literary crossing as in the early English novel, and the era of Balzac. As a result, new story forms that cross over between fiction and evidence are needed, simply for accuracy; to express how power and illusion, power and erasure have designed new partnerships (the transnational world characterized by Rupert Murdoch, etc.).
- 25 See, for example, note 23. And of course, the sheer body of globalist and postcolonial cultural studies on the constructed history. Also the writings of Sande Cohen on historical culture.
- 26 Critics often abbreviate the title: Jan Potocki (1761–1815), *The Manuscript Found in Saragossa* (1805–1813). A picaresque novel set in 1739, very much about the Baroque imaginary (tr. Ian McLean [London: Penguin Books, 1996; orig. 1995], from the French, 1989).  
See also: the film adaptation, *The Saragossa Manuscript* (1960, Poland, directed by: Wojciech Has), a cult masterpiece, cited by Buñuel and many others. Often called Jerry Garcia’s “favorite movie,” who then helped pay for restoration of the director’s cut.
- 27 William Lindsay Gresham, *Nightmare Alley* (New York: Carroll and Graf Publishers, 1986; orig. 1946), 4–5.

## Baroque Immersion, Baroque Artifice

- 1 I select 1647 because in that year, the royal theater of Queen Anne, and of Cardinal Mazarin, introduced *theatres des machines* from Italian masters (Torelli). Thereafter, the use of “machines” sped up in France. However, by 1649, France was in civil war (Fronde). See also: T.E. Lawrenson, *The French Stage and Playhouse in the Seventeenth Century* New York: AMS Press, 1986.

- 2 Line 632, *L'Autre Monde ou les États et Empires de la Lune*; Cyrano de Bergerac, *Oeuvres complètes*; édition critique par Madeleine Alcover, vol. 1 (Paris: Honore Champion Editeur, 2000), 41. The authoritative source. In English, the standard annotated translation is by Richard Aldington: Cyrano de Bergerac, *Voyages to the Moon* (New York: Orion Press, 1962), 66. The ironies of the language include “industrielle charrette”; more on the entendres of the Baroque machine as special effects as we proceed.
- 3 Alcover, *ibid.*, “Analyse,” CLXXXIX–CXCIII. Also: Luciano Erba, *Magi a e invenzione; Studi su Cyrano de Bergerac e il primo Secento francese* (Milan: Vita E Pensiero, 2000), 28.
- 4 The bird galleon “invented” by Bartolomeo Lourenco da Gusmão in 1709 is cited by Richard Aldington, *ibid.*, 214, among hundreds of parallels, frequently noted, between Baroque fantasies and Baroque science.
- 5 Translation into French from the Italian: Nicola Sabbatini, *Pratique pour fabriquer scenes et machines de theatre* (Ravenna: Chez Pietro de Paoli et Gio, 1638), 71, Book 11.1. There is also a modern French translation, 1942, by Maria and Renee Canavaggia. The Italian title for this classic document: *Pratica di Fabricar Scene e Machine ne Teatri*, 1637 or 1638. Sabbatini was an engineer and artist at the court of Pesaro, his city of birth. His text may be based on the Teatro del Sole at Pesaro. Also, see note 3.
- 6 Wings: painted flats that could be moved sideways, along parallel tracks. The edges of wings—where the audience could see—tended to obscure the side walls, and allow characters to drift in and out of the scene. Wings served as buildings, furniture, streets, or landscape. They also dissolved the diegetic picture frame, suggested an extra-diegetic environment wider than the side wall. At the same time, these parallel layers reinforced the illusion of forced (accelerated) perspective. Today, wings are still used in theater, but less elaborately than on the Renaissance/ Baroque stage.
- 7 Nicola Sabbatini, *Manual for Constructing Theatrical Scenes and Machines*, 1638, in *The Renaissance Stage: Documents of Serlio, Sabbatini and Furtenbach*, ed. Barnard Hewitt, tr. A. Nicoll, J. McDowell, G. Kernodle (Coral Gables: University of Miami Press, 1958), Book II. 1, 99.
- 8 *Ibid.*, Book II, 25 and 26, 128–129.
- 9 For links between Sabbatini and Torelli, see: Anton Guilo Bragaglia, *Nicola Sabbatini e Giacomo Torelli: Scenotecnica Marchigiana* (Edizioni Denn'Ente Artistico Culturale di Pesaro, 1952). Also: Dunbar Ogden, *The Italian Baroque Stage* (Berkeley: University of California Press, 1978). Cardinal Mazrin in-

- vited Torelli, first to reequip what was formerly Richelieu's private theater at the Palais Royale.
- 10 Raimondo Guarino, *La Tragalia e le Macchine: Andromede di Corneille e Torelli* (Bulzoni Editore, 1982), 63.
  - 11 *Ibid.*, 66. Guarino reviews the fad that Roelli brought with him from Italy, i.e., the *pieces a machine* at the Theatre du Marais.
  - 12 Translation in A.M. Nagler, *Source Book in Theatrical History* (New York: Dover Publications, 1959; orig. 1952), 167–171. Another classic source for theater design, taken from its classic text: the original, a description from 1650, in S. Wilma Holsboer, *L'Histoire de la mise en scene clans le theatre fran-cais de 1600 à 1657* (Paris, 1933), 151–153. See also: Per Bjurström, *Giacomo Torelli and Baroque Stage Design* (Stockholm: Almqvist and Wiksell, 1961).
  - 13 Per Edstrom, “Stage Machinery at Drottningholm Theater,” *Drottningholm Theater: Its Advent, Fate and Preservation* (Stockholm: Byggforlaget, 1993). Also: Frank Mohler, “Survival of the Mechanized Flat Wing Scene: Court Theatres: of Gripsholm, Český, Crumlov and Drottningholm,” *Theater Symposium 4*, 1996.
  - 14 Margarete Baur-Henhold, *The Baroque Theater: Cultural History of the 17th and 18th Centuries* (New York: McGraw-Hill Book Company, 1967), 122. In fact, this centralized theater mechanism ran on more than just wheels and a roller system. And yet, one hand could operate more than one wing at a time. These mechanical intricacies were already in use more than a century earlier, by 1640 in Venice.
  - 15 Per Edstrom, “Stage Machinery at Drottningholm Theater,” 74.
  - 16 The proscenium as picture frame—with arch—did not dominate in theater design by 1647, though variations existed all over Europe (had since Roman firms), what William V. Dunning calls “overlapping planes” in painted stage sets: *Changing Images of Pictorial Space: A History of Spatial Illusion in Painting* (Syracuse University Press; 1991), 42.  
But as of 1647, curtain drops still operated more as wipes and quick edits than as a fourth wall—assets for delivering “moments of wonder.” Or as *trompe l’oeil* about the stage simulating what lay outside it—the theater entrance, on the street. That is: blending the interior design of the building with the artifice of the stage—extending the foreground more than isolating the stage from the theater seats. Or the curtain merely adding a mystery (“the hidden” plot point), like mysterious drapery in the oil painting, wall fresco, and also in curtain design (narrative secrets hidden within “folds”).

- 17 For example, in the theater designs of Inigo Jones (ca. 1630), the proscenium suggests an imaginary interactive phenomenology a “two-way mechanism of control”: “spectators ... are positioned to optically enter into the distances of perspective ... (with the curtain) both unmasking and presenting the scene—which is rendered decoratively as an extension of the proscenium structure. It becomes a metaphor of the proscenium’s function to hide and show at the same time.” John Peacock, *The Stage Designs of Inigo Jones: The European Context* (Cambridge: Cambridge University Press, 1995), 211.
- 18 George Moynet, *Trucs et Decors: La Machinerie Théâtrale* (Paris: La Librairie Illustré, 1893), 26.
- 19 Ships on wheels had been a feature in theaters for centuries, but not as elegantly rigged as these.
- 20 Andre Bazin, *What Is Cinema*, vol. I, tr. H. Gray (Berkeley: University of California Press, 1967; orig. 1965), 104.
- 21 Michael Nerlich compares this artifice to a reevaluation of the knightly tale during the debates between the ancients and moderns in late-seventeenth-century France, how the unsteady alliance between monarch and bourgeoisie was reflected in the way adventure narratives were framed. Michael Nerlich, *Ideology of Adventure: Studies in Modern Consciousness* (tr. R. Crowley) (Minneapolis: University of Minnesota, 1987; orig. 1977), ch. 13.
- 22 *Ibid.*, 31.
- 23 On the term *modernist*: There is endless debate as to when the European modern begins. Do we start with Bayles dictionary? With Descartes? Do we begin with. Encyclopedists? With the French Revolution? With Courbet? With Hobbes or Locke? I tend to believe that there were waves of “the modern” that actually came and went, that actually declined, and nearly disappeared. Thus, the “early” modern identified in the Baroque period (the Enlightenment) may have ended with the French Revolution, been utterly reshaped. Similarly, the nineteenth-century modern ended with World War I. Then, the twentieth-century modern was recovered in the 1920s (the received decade for Cubism, Expressionism—as industrial design as cinema—though the studio experiments came earlier). In short, I have a more morphological sense of the modern; thus, we in 2003 are witnessing the decay of modern politics, under yet another wave of reaction, from a fundamentalist faction.
- However, this book is not a reevaluation of these debates. I must stay to

- my discipline—special effects—and not enter the epistemic fastness of the modern,” except as footnote.
- 24 Christian Metz, “The Imaginary Signifier,” *Screen*, Summer 1975, 18–19. See also: Jean-Louis Baudry, “Ideological Effects of the Basic Cinematographic Apparatus,” *Film Quarterly*, Winter 1974 (orig. 1970).
- 25 Quadraturista; illusionistic painting, usually ceilings or vaults, refers to painters or architects, particularly in eighteenth-century Italy, as the systems of perspective grew more grammatologically established, through the writings and painting of Pozzo, and the school dominated by the Babiena family. By 1740, a coterie of painters specialized in recording quadratura and perspective awry. These painters often began their careers as theater designers: Giovanni Paolo Panini (1692–1765), who influenced Canaletto, and was followed by his son, Francesco Panini. An efflorescent, blushed grammar evolved, a stylized chronicle of how special effects were perceived (along with the record left by many engravings, of course). See: Ingrid Sjostrom, *Quadratura; Studies in Italian Ceiling Painting* (1978); Alberto Perez-Gomez and Louise Pelletier, *Architectural Representation and the Perspective Hinge*, 159–162.
- 26 Sheldon Cheney, *Stage Decoration* (New York: B. Blom, 1966; orig. 1928), Plate 25, for the Court at Munich. One source among a wealth of texts on stage setting, scenery spectacle. For example: Lilly Campbell, *Scenes and Machines on the English Stage During the Renaissance* (New York: Barnes and Noble, 1960); Arthur Blumenthal, *Guilio Parigi's Stage Design: Florence and the Early Baroque Spectacle* (Ann Arbor University Microfilm, 1965; NYU Ph.D. dissertation); the classic by Germaine Bapt, *Essai sur L'Histoire du Theatre* (Paris: Hachette, 1893); again, Per Bjurstrom, *Giacomo Torelli and Baroque Stage Design*; as well as studies of Inigo Jones, of Philippe Jacques Louthembourg (1740–1812); or many studies on Victorian stage design, like Alicia Finkel's *Romantic Stages* (Jefferson: McFarland, 1996); and histories of stage design in the US, 1880–1915, like Alexander Earnest, *An Index of Patents Concerning Theater Illusions ...* (MA Thesis, UCLA, 1964); and a flood of how to's and manuals (for professional and amateur theater) throughout the twentieth century, like David Welker *Theatrical Set Design The Basic Techniques* (Boston: Allyn and Bacon, editions since 1969); and of course avant-gardist theatrical spectacle, i.e., Schlemmer and the Bauhaus, the Dadaists, Russian Constructivist design, and neo-Baroque theater, e.g. Reinhardt in Germany.

- 27 In 1665, Molière premiered his *Don Juan ou le festin de pierre* (“the feast of stone”) at the Palais Royale *salle de spectacles*. This theater was already famous for its large Torelli machines, and the Don Juan legend was equally famous for its special effects, particularly for its climax (the statue dragging Don Juan into hell). Unfortunately, the Torelli machines at the Palais Royale had recently burned down, on orders by his rival *machiniste* Vigarani. So Molière had to settle mostly for *trompe l’oeil* curtains instead, without the glorious fanfare. The play was still a great success, then fell subject to relentless cuts by Catholic censors.
- 28 Conversation with Tomas Wilitzky, June 2001.
- 29 Sebastian Vauban is probably the classic Baroque designer of sieges for Louis XIV, particularly during the War of the Spanish Succession. His designs have been integrated into various studies of Baroque architecture, e.g., in the massive catalogue *The Triumph of the Baroque: Architecture in Europe 1600–1750*, ed. Henry A. Millon (Venice: Palazzo Grassi [EduCap Inc.], 1999.) Many festivals were modeled on successful sieges.
- 30 Walter Benjamin, *The Origin of German Tragic Drama*, tr. J. Osborne (London: NLB [Verso], 1977; orig. 1963), p. 132. Johann Christian Hallmann was a Baroque playwright from Silesia. His work is also discussed in Martin Disselkamp’s *Barockheroism* (2002).
- 31 *Ibid.*, 452.
- 32 Orville Larson, “Giacomo Torelli, Sir Philip Skippon, and Stage Machinery for the Venetian Opera,” *Theater Journal*, vol. 32, no. 4, Dec. 1980. See also: Thomas Ault, “Architecture in the Baroque Age of Theater,” *Theater Design and Technology*, Winter 1992; Orville Larson, *The Theatrical Writings of Fabrizio Carini Motta* (Carbondale: Southern Illinois University Press, 1987).
- 33 Larson, “Giacomo Torelli, Six Philip Skippon, and Stage Machinery for the Venetian Opera,” 449.
- 34 *Ibid.*, 453.
- 35 A setting that in itself suggested a scripted walk Santa Maria del Popolo is near the gate to the Piazza del Popolo, at one of the ancient points of entry into the city. This military (and tax) gate functioned as entrance (*proscenium*) to public processions, along what amounted to a “boulevard.” Thus, Paul’s road to Damascus, the setting for this painting, parallels the road into Rome, and its “light.”
- Also, this church was already venerable, practically a place of pilgrimage—built over a century before, over religious sites more than a thousand years old. To complete the “effect,” it housed works by Raphael, and, fac-

- ing the Cerasi Chapel, an altarpiece by Caracci; then later, a sculpture by Bernini.
- 36 A recent solid study in English on Caravaggio (inside a massive literature): Howard Hibbard, *Caravaggio* (Boulder: West View Press/Perseus, 1983), 129–132.
- 37 II Corinthians 4:6: Saint Paul is humbled by divine light, made blind to “let shine out of darkness,” like “the knowledge of the glory of God in the face of Christ.” One source for this citation: Adolph Deissmann, *Paul: A Study in Social and Religious History* (New York: Harper, 1957; orig. 1912). I admit that I have always seen this painting as the ultimate born-again irony, not a Catholic statement at all: faith beyond works; anabaptist humiliation; wailing in tongues while blinded by the light. Nor can I quite believe Caravaggio’s conversion as he lay dying with malaria in 1610, though the pope was about to forgive him for two murders and a truly noir—*scuro*—life, brawling and blaspheming. Indeed, rather than a conversion, I prefer to see this painting of Saul ((St.) Paul) supine and blinded as prophetic for Caravaggio. Like the film noir saying. live fast, die young, and leave a good-looking corpse. But hard-boiled dialogue like that does not belong in the body of this text. I’m supposed to be a coolheaded historian. I’ll be resurrecting Rimbaud in Ethiopia next.
- 38 Obviously, dialogical implies Bakhtin here; but we must recode the problem to define special effects. My narrower working definition: dialogue is a milling effect in scripted spaces, which in turn was transmogrified into the nineteenth-century novel, by way of eighteenth-century writers like Sterne. Then an even narrower definition: the direct address within the walkable script, that “converses” (with the viewer who navigates. This device, in turn, is “introspected” by Dostoyevsky, for example, turned essentially into a model of the mind as double (part of the grand Dostoyevskian metastructure). One could argue for those links, at any rate. Bakhtin goes much, much further, of course.
- Therefore, my historicized explanation here is clearly somewhat different than that of Bakhtin on Dostoyevsky, even Bakhtin on carnival. More directly, it refers to a common source often noted—the contrapuntal nature of the dialogical in early modern European theater and narrative architecture. Here are scripted spaces enhancing the relationship between viewer and performance before the nineteenth century in Europe.
- 39 *Pantocrator*: The ring around the oculus; also the cosmogonic representation of Christ in the universe.

- 40 Like the return of the repressed—illusion serving political power—this phrase reappears in Marx’s *Capital*, then as the title of Marshall Berman’s history of urban misplanning and political bad faith: *All That is Solid Melts into Air*.
- 41 The tuning sequence in *Dark City* (1998, written and directed by Alex Profs). Film historian Michelle Pierson writes: “The overall effect of the tuning sequence and similar occasions is one of anamorphosis, with the picture only cohering as a special effect in the brief moment before the bigger picture is restored”: *Special Effects: Still in Search of Wonder* (New York Columbia University Press, 2002), page 131.
- The underlining is my emphasis: I have called brief interludes like the tuning sequence an “ani-morph”—essentially animation: the hesitation that generates lapse: see chapter 13. During this flash (three acts in a few seconds), change is in limbo. While in limbo, it reveals. The reveal gives a sense of who designed the effect. But during the reveal, neither the past nor the future is coherent. The reveal mixes media as if it were compositing memory, very much in keeping with a film that describes itself as “stolen memories, different eras, different pasts, all rolled into one.” Data have no weight, yet they change the shape of buildings, even copy the memory of steel. The sound effects are important here, as synchronic, and yet asynchronic. Weightless morphs copy the sounds of making industrial collages out of steel and bricks. As they shape-shift, the cityscape groans. Steel beams kneel and howl. Pierson also calls the look of films like *Dark City*, “their costuming, sets and visual effects ... cluttered, baroque.” (*Ibid.*)
- 42 Pozzo was convinced that the single perspective point of view should be emphasized in a nave with an open, fictive architectural space. The debates over multiperspective or singular perspective were crucial—thus his marker below.
- 43 Pozzo’s work marks the culmination of many of these *quadratura* systems in Italy, which began with Masaccio and Mantegna in the fifteenth Century: Afterward, the Italian *quadratura* style is altered by French sources in particular, absorbed into Rococo interiors, where the ideology shifts to rituals away from courtly power and the Church, certainly away from the massiveness of the Counter-Reformation.
- Ceiling illusion in the eighteenth century was dominated by the Bibiena family (Bologna), and particularly by Tiepolo. There were shifts compared to the Baroque, for example in various themes; the *fête gallante* (ritual flirt-

tations), or genre painting (hunting scenes, etc.), or the architectonics of fairs, musical performance—a tinier, more vernacular staging, compared to giant Baroque commemoratives to the prince. We imagine couples in the corner of Watteau's *Embarcation to Cythera* (1717), (or even the engravings of fairs by Callot) as ceiling paintings. The spectator is offered more multiple-perspective illusion; also more scenes like “nature,” inside local estates, and fewer of the dizzying Ascensions. Instead of the vertiginous “free” ceiling, the fictionally painted height rises like steam, without as much spiraling. There is more *trompe l'oeil* in corners, away from the action, or at angles that require separate viewing—a separate walk—not as much pyramidal, Baroque sculptural presence (i.e., the ceilings looking more like the altars, more like cinematic tableaux). Thus, after Pozzo, the *quadratura* ceilings are more about the fashionable life, more about the nobility than earlier, less about the prince/king.

- 44 For a useful summary, see John Shearman, *Only Connect: Art and the Spectator in the Italian Renaissance* (Washington, D.C.: Bollingen Series XXXV, Princeton University 1988).
- 45 Clearly, I am referring to the body of debate around the classic study by Frances Yates, *The Art of Memory* (Chicago: University of Chicago Press, 1966). Aspects of that debate appear in my book *The History of Forgetting: Los Angeles and the Erasure of Memory* (London: Verso, 1997).
- 46 *The Autobiography of Benvenuto Cellini*, tr., intro., George Bull (London: Penguin Books, 1956; numerous reprintings), 122. The novel *Spirit Ring*, by Lois McMaster Bujold (1993) was inspired in part by Cellini in this story about magical encounter.
- 47 Marvin Lunenfeld, “Pedagogy of Fear: Making the Secret Jew Visible at the Public *Auto-Da-Fe* of the Spanish Royal Inquisition,” *Shofar*, 18:3, Spring 2000, 82.
- 48 *Ibid.*, 83–84.
- 49 *Ibid.*, 85
- 50 Bernhard Kerber, *Andrea Pozzo* (Berlin: Walter de Gruyter, 1971), 72. The term *mondo simbolico* was associated with the Jesuit theorist Filippo Piconelli, ca. 1640.
- 51 *Ibid.*, 107. From the exhaustive survey, with an exhaustive title, by Johann Georg Keyssler (1693–1743), *Travels Through Germany, Bohemia, Switzerland, Italy ...* (Hannover, 1740). However, the translated edition of “the traveler Keyssler”—cited by Kerber—was published in London, 1757 (probably by A. Linde, editions from 1756 onward, in four volumes), based on a

second edition, published in Leipzig, 1751 (248, footnote 259a): “That spot on which the spectator must stand to view this wonderful piece of perspective [by Pozzo] may be known by this distich on the middle of the pavement ... ‘The charms of virtue in the golden mean—Are plac’d like those of art which here are seen.’ This alludes to maxims in Aristotle’s *Nicomachean Ethics*, II:5–6.” At the moment of wonder, the viewer perceives God’s virtue by way of the Golden Mean. A jesuitical reading of Thomist phenomenology, rerouted into *quadratura* special effects.

- 52 A biblical allusion to Joshua “holding still the sun.”
- 53 There are numerous printings of Pozzo’s *Prospectus on Architecture* (1699), even from Dover in the U.S., and selected illustrations in practically every survey of the history of perspective.
- 54 Ricci was referring to Jesuit father Jerome Nadal’s writings on perspective. See also: Jonathan D. Spence, *The Memory Palace of Matteo Ricci* (New York: Viking, 1984; orig. 1983).
- 55 Il Gesu is a Renaissance church (1582) with Baroque interiors, notably the altar of Saint Ignatius, designed by Pozzo.
- 56 At Il Gesu, Gaulli’s frescoes took thirteen years to complete, 1672–1685.

## Perspective Awry

- 1 Nicholas Rescher, *The Philosophy of Leibniz* (Englewood Cliffs: Prentice-Hall, 1967), 61.
- 2 Jonathan D. Spence, *The Memory Palace of Matteo Ricci* (New York, Viking, 1984), 147.
- 3 Within the vastness of art-historical studies on perspective, a few have become central, beyond, of course, the writings of Hubert Damisch (i.e., *The Origin of Perspective* [Cambridge: MIT Press, 1994; orig. 1989]), and Erwin Panofsky (from his early essays, 1921 ff.), *Perspective and Symbolic Form*. (1927) to *Meaning in the Visual Arts* (Chicago: University of Chicago Press, 1955). For example: Alberto Perez-Gomez and Louise Peletier, *Architectural Representation and the Perspective Hinge* (Cambridge: MIT Press, 1997); Michael Kubovy, *The Psychology of Perspective and Renaissance Art* (Cambridge: Cambridge University Press, 1986); Samuel Edgerton, *The Renaissance Rediscovery of Perspective* (New York Harper and Row, 1975); James Elkins, *The Poetics of Perspective* (Ithaca: Cornell University Press, 1994). In addition, the number of treatises from the fifteenth through

the seventeenth century is even more staggering, as the rediscovery of Euclidean systems spread across industry and culture in Europe. For example (names that reappear often): Alberti., Dürer, Serlio, Pelerin (Viator), Niceron, de Vries, Dubreuil, Descartes, Desargues, Bosse, Hoogstraten, Pozzo. Beyond its seemingly endless practical uses, one key question on perspective (awry) reappears very often: Do its obvious distortions/illusions (the linear plane warped in deep focus) bring the viewer closer to observable nature, or do they subvert the natural order? Is natural truth a subversion?

- 4 Joseph Furtenbach the Elder, *The Noble Mirror of Art* (1663), in Bernard Hewitt, *The Renaissance Stage* (Miami: University of Miami Press, 1958).
- 5 *Ibid.*, 244.
- 6 *Ibid.*
- 7 Jose Antonio Maravall, *The Culture of the Baroque: Analysis of a Historical Structure*, tr. T Cochran (Minneapolis: University of Minnesota Press, 1986; orig. 1975), 196.
- 8 The medieval masonry term for filling the upper angles of a square room, to meet a curved dome, was the *squinch* (clearly a Byzantine and Arabic influence here as well). Squinches could also be painted diagonally, to add occlusion, even to suggest that the building might fall down. The more geometric curve was called a *pendentive*: a spherical triangle as transition between the square wall and dome.  
Special-effects (*quadratura*) masters could interpret any shape that was flat, curved or domed—whether they actually existed or not. Enormous domes could be painted onto a flat ceiling.
- 9 Werner Oechslin and Anja Buschow, *Architecture de Fête: L'Architecte comme metteur en scène*, tr. M. Braunsch (from German) (Bruxelles: Pierre Mardaga, editeur, 1987; orig. 1984), 28.
- 10 Lily Campbell, *Scenes and Machines on the English Stage During the Renaissance* (Cambridge: Cambridge University Press, 1923), 1971 updated Evelyn's spelling and tenses a bit, much as I love *publiq* for "public," *writ* for "wrote," etc.
- 11 John Milton, *Paradise Lost*, Book II.
- 12 The corbeling (and arches) at the corners of a building or a room that supports a dome are called *squinches* (the medieval masonry term). To repeat, the almost triangular (less flowing) supports from the square base to the dome are called *pendentives*.

- 13 Celeste Brusati, *Artifice and Illusion: The Art and Writing of Samuel Van Hoogstraten* (Chicago: Chicago University Press, 1995), 173–176. Only six of his boxes are extant. The most elaborate is *Perspective Box with Views of a Dutch Interior*, now in London. In seventeenth-century Holland, the more standard shape for a perspective box was triangular. Perhaps Hoogstraten's greatest influences (beside Rembrandt, of course) were the writings on art by Franciscus Junius: "Good paintings are but apparitions," their illusionistic wonder "can serve to delight our spirits and is free from all censure." (159) Many art historians write as well on the scientific research into perception implied here, and about the "covert" position given the beholder, to spy on the mysteries hidden inside the implausible and the ordinary, the everyday. And like Italian masters of *quadratura*, Hoogstraten based much of his "Art of Eyesight" upon the ironies of the curve posing as the straight line (184–185).
- 14 *Ibid.*, 173–174.
- 15 Barbara Maria Stafford and Frances Terpak, *Devices of Wonder: From A World in a Box to Images on the Screen* (Los Angeles: Getty Research Institute, 2001), 66. These shadow shows often used multiple-hinged armatures, like Indonesian or Chinese shadow puppets, and remained popular well into the eighteenth century (Laurent Mannoni, *Trois siècles de cinema* [Paris: Espace Electra, 1995], 28–32).
- 16 *Ibid.*, 237.
- 17 Martin Battersby, *Trompe L'Oeil: The Eye Deceived* (New York: St. Martin's Press, 1974), 57–59. This peep show by Hoogstraten (ca. 1660: difficult to date) is at the National Gallery in London. See also; Stafford and Terpak, *Devices of Wonder*. As I mentioned earlier, very few Hoogstraten boxes have survived. The one most cited is *Perspective Box with Views of a Dutch Interior* (1662). They were considered mundane and disposable, for a culture replete with optical miniatures.
- 18 *Presepe Napolitano con Pastori autentici a settencino*, on display at the Santa Maria in Via, in Rome.
- 19 While dozens of masters used trompe l'oeil, the ones that reappear consistently in histories of the form: Mantegna; Juvarra; Pozzo, of course; then as masters of "false collapse," the illusion that the building is falling down—Guilio Romano (Palace of Te, near Mantua, 1532–34), Giovanni Francesco Marchini (Wiesentheid, 1730); ceilings, Giovanni Battisti Gaulli (church of Il Gesu in Rome, 1672–85); churches of the Brothers Assam in Munich; *quadratura* work from Bologna by the Babienas; Tiepolo from

Venice across Europe. Also the “ludic space” of trompe l’oeil used in theater, summarized well by Miriam Milman, in *Architectures Peintes en Trompe-L’Oeil* (Geneva: Skira, 1986), chapter 4. Sometimes the dioramas of Daguerre and various panoramas of the nineteenth century are identified with trompe l’oeil. I would make a distinction there, because the intentions of trompe l’oeil are narratively different than what Daguerre and others achieved in their scripted dioramas from circa 1820, and through the nineteenth century. Trompe l’oeil was also featured in late-eighteenth-century wallpaper, from the firm of Dufour in particular, but standardly in that industry. So too, faux curtains were standardly painted on the stage wall in many theaters. This brings to mind the variations in scale with trompe l’oeil (i.e., Hoogstraten vs. Tiepolo in this chapter). Beside architectural trompe l’oeil, there were the smaller models, fashioned in parquetry, for example, or as modest paintings. These were known as *trompe l’oeil da cavaletto*. Since my book centers on massive and gaudy special effects (the illusion of power), the *cavaletto* model does not fall into the discipline of my argument. Martin Battersby, for example, dedicated much of his influential history on *Trompe L’Oeil: The Eye Deceived* to papers and prints, chimneys, trophies, including the nineteenth-century fashion for painting false souvenirs; and one of my favorites from the post-Civil War in the U.S., *Time Is Money*, by F. Danton in 1894. Karen S. Chambers’s *Trompe L’Oeil at Home: Faux Finishes and Fantasy Settings* (New York: Rizzoli, 1991) is fuller and very thoughtful on precisely interior decorative uses of trompe l’oeil, and their architectural links. For background and basic bibliography, see also: Patrick Mauriès, ed., *Le Trompe L’Oeil de l’Antiquité au XXe Siecle* (Paris: Editions Gallimard, 1996); Alberto Veca, *Inganno & Realta: Trompe l’Oeil in Europa XVI-XVIII sec.* (Bergamo: Galeria Lorenzelli, 1980); R. Court et al, *L’Effet. Trompe-L’Oeil dans l’Art et la Psychoanalyse* (Paris: Bordas, 1988); and Marie-Louise d’Otrange, *Illusion in Art: Trompe L’Oeil: A History of Pictorial Illusionism* (New York: Abaris Books, 1975). Among the most developed America practitioners in recent decades: Richard Haas, *An Architecture of Illusion* (New York: Rizzoli, 1981.) Then, of course, Duchamp, Surrealists, Joseph Cornell, the histories of installation art and trompe l’oeil, and trompe l’oeil in circuses and amusement parks, and in ephemeral architecture, what architect Alberto Rossi called *teatrino*, and in postmodern architecture.

- 20 On Tiepolo's murals of the Four Continents at Würzburg), see Svetlana Alpers and Michael Baxandall (eds.), *Tiepolo and the Pictorial Intelligence* (New Haven: Yale University Press, 1994).
- 21 On the bowel movement as princely ritual: thresholds for stink were different back then. Toilets were outhouses or chamber pots. Servants used the stairwells of Versailles as toilets. At court, unwashed bodies were "masqued" by fierce perfumes. Garbage wagons carried human and animal wastes through cities. At the Defenestration of Prague (1618), imperial officials were thrown from a palace window into a pile of manure nearby. For a culture where private hygiene was much more public (including thousands of horses), the sounds of defecation, of all body activity, were more familiar, as noted in Rabelais, Cervantes, Sterne, Swift, etc. Remember the birth of Gargantua.
- From the toilet to the sitting room: it is useful to keep track of which variations of stink are synesthetically emphasized in the media, from one era to the next. If the stink is vivid enough, that might qualify it as an *abject* special effect. For example, in recent decades, movies often feature scenes where characters throw up, much like the popular illustrations in eighteenth-century England: Hogarth, Gillray, Isaac Cruickshank, etc. There also are many more male-ist urological jokes in the media—about "cum," masturbation, men peeing. And men's sour stomachs on the screen—more dyspeptic grunts and groans. Also the ultimate male "far" gag for children in *Flubber*. How do we interpret these spoofs about self-loathing, these "Revels of Folly"?
- Can we agree that whenever the Rabelaisian makes a comeback, so does the Victorian? After all, Victorians then and now were obsessed—simultaneously and rapturously—with a strong dose of self-control, and an equally strong dose of pornography.
- 22 Jean Baudrillard, *Seduction*, tr. B. Singer New York: St. Martin's Press, 1990; orig. 1979), 67.
- 23 Gilles Deleuze, *The Fold: Leibniz and the Baroque*, tr. T. Conley (Minneapolis: University of Minnesota Press, 1993; 1988), 28.
- 24 Jacques Lacan, *The Four Fundamental Concepts of Psychoanalysis*, tr. A. Sheridan (London: Hogarth Press, 1977), 79ff. The reference to Holbein's *Ambassadors* apparently was inspired by Lacan reading Baltrusaitis on anamorphosis.
- 25 Lawrence James, "Phoenix, Ex-Machina: Joyce's Solicitation of Hypertext," *Hypermedia Joyce Studies*, vol. 1, Summer, 1995.

- 26 Slavoj Žižek, *Looking Awry: An Introduction to Lacan Through Popular Culture* (Cambridge: MIT Press, 1992), 89–91.
- 27 Fred Leeman, *Hidden Images: Games of Perception, Anamorphic Art, Illusion* (design, J. Elffers and M. Schuyt), tr. B. Allison and M. Kaplan New York: Harry Abrams Inc., 1976; orig. 1975), 49.
- 28 Alberto Perez-Gomez, *Architecture and the Crisis of Modern Science* (Cambridge: MIT Press, 1983), 179.
- 29 Fred Leeman, *Hidden Images*, 11. Citing a text in 1584 by Giovanni Paolo Lomazzo. See also Perez-Gomez's *Anamorphosis: An Annotated Bibliography* (Montreal: McGill Queens University Press, 1996).
- 30 Some of these terms refer to Baudrillard's essay "Symbolic Exchange and Death," in *Jean Baudrillard: Selected Writings* (Stanford: Stanford University Press, 1988). This anthology curates his earlier studies on cultural illusion; in the arts mostly at first; and of course, his eighties theories on simulation.

## Masques

- 1 Lily Campbell, *Scenes and Machines on the English Stage During the Renaissance* (Cambridge: Cambridge University Press), 34.
- 2 Ben Jonson may have presented a masque as early as 1603, *Satyr*, for the royal party visiting at Althorp, but without props or machines, more like a cold reading.
- 3 *Blacknesse* here means "blackamoors"—blacks, Ethiopes, etc. (court ladies dressed in blackface essentially). Black: the symbol of the dark, uncharted sea reveals the Masquers; blackness as terra incognita. See John C. Meagher, *Method and Meaning in Jonson's Masques* (Notre Dame, Indiana: University of Notre Dame Press, 1966).
- 4 Stephen Orgel, "Introduction," *Ben Jonson, the Complete Masques* (New Haven: Yale University Press, 1969), 12. This is essentially Orgel's addendum to his key study from 1969 (see note 10).
- 5 *Ben Jonson, the Complete Masques*, 318. From *The Gypsies Metamorphosed*, 1621.
- 6 *Ibid.*, 99. From *Hymenaei, or the Solemnities of Masque and Barriers at a Marriage (Masque of Hymen)*, arguably the greatest success that both Jonson and Jones shared, though the form of Jonsonian masque evolved further over the next decade.

- 7 Lesley Mickel, *Ben Jonson's Anti-Masques: A History of Growth and Decline* (Aldershot: Ashgate, 1999), 111.
- 8 Inigo Jones also often designed the costumes for courtiers, as *capricios*, even modeled on engravings by Callot. Also, since courtiers were the ones who wore the costumes, it was highly 'politick' to give them high priority.
- 9 A "twelfth night masque," *The Masque of Hymen* is cited in every history of masque—and study of Jonson or Jones that I have seen, second only to *The Masque*
- 10 *Ben Jonson, The Complete Masques*, ed. Stephen Orgel (New Haven: Yale University Press, 1969), 82–83.
- 11 Microcosmos suggested a mystical planetary process. *Wunder Kammers* were also sometimes identified as *microcosmos*, as was Camillo's Memory Theater. Jonson used the term here in two ways, I suspect. First to describe how eye-popping, and distracting, the globe looked at the *Masque of Hymen*; and second—a bit more personal for him—microcosmos as contingency; to make the effects more of an "emblem," and thus contingent on his dialogue. What's more, behind the globe was a cloud, to enhance the mystery: clouds as the emblems of transformation from one mode of the real to another.
- 12 See: Skiles Howard, *The Politics of Courtly Dancing in Early Modern England* (Amherst: University of Massachusetts Press, 1998).
- 13 Years later, at the second Whitehall Banqueting House, the king's seat was positioned directly at the center of the auditorium, like a Maypole, or a centripetal force.
- 14 Robert Devereux, the young Duke of Essex (aged fourteen) was a pawn in the attempt by the king to heal the feud between his "militantly" Protestant family and the essentially Catholic Howards; the marriage also played into King James's need to assuage the more radicalized Scots. (Lesley Mickel, *Jonsonian Antimasques*, 105–106).
- 15 *Masque of Flowers* (Jan. 6, 1614): In the gray of winter, masquers dance toward spring, toward mating and flowering.
- 16 See: David Lindley, *The Trials of Frances Howard: Fact and Fiction at the Court of King James* (London: Routledge, 1993), the most recent biography.
- 17 From the oft-quoted Jonson notes to *Hymenaei*, even in *The Costume Designers World: A Brief History of Costume* (no longer online). See also note 19.
- 18 The ladies arrived "not after the stale perpendicular fashion, like a bucket into a well; but came gently sloping down." "Ben Jonson Turned the Globe," an onlooker's impression of *Hymenaei*: Sir John Pory in a letter to

- Sir Robert Cotton, anthologized in A.M. Nagler, *A Source Book in Theatrical History* (New York: Dover Books, 1959; orig. 1952), 146.
- 19 *Ben Jonson, the Complete Masques*, 96. Onlooker Sir John Pory was struck by the ladies' white plumes of richest heron feathers, and their jewels so rich upon their heads, and glorious, "I think they hired and borrowed all the principal jewels and ropes of perle both in court and city."
- 20 Landscape argument: John Peacock, *The Stage Designs of Inigo Jones: The European Context* (Cambridge: Cambridge University Press, 1995), chapter 5. Also: J. L. Yoch, "A Very Wild Regularity: The Character of Landscape in the Work of Inigo Jones," *Research Opportunities in Renaissance Drama*, XXX: 1988.
- 21 Stephen Orgel, *The Jonsonian Masque* (Cambridge: Harvard University Press, 1969), 196. Still probably the classic study, by a leading Shakespearean scholar (see review of the "subfield," note 33). The source for the quote, Jonson's poem "The Omnipotent Design" (1631), part of his *Expostulation with Inigo Jones*. Also see, of course (very influential), Orgel's *The Illusion of Power: Political Theater in the English Renaissance* (Berkeley: University of California Press, 1975).
- 22 Essentially Jonson's last play, during his declining years, *The Tale of a Tub* is cited often as a diatribe on how masques destroy the writer. For example, one historian describes the epilogue as "disdainful but resigned," then cites a quote condemning masque: "The Poet's fortune is ... still to be early up, but never the near" James D. Redwine, Jr., ed. *Ben Jonson's Literary Criticism* (Lincoln: University of Nebraska Press, 1970), xxxiv.
- 23 Lesley Mickel, *Ben Jonson's Anti-Masques: A History of Growth and Decline*, 110.
- 24 Ben Jonson, *Love Restored*, lines 162–168.
- 25 In *Love Restored* (1612, a cheaper, thus less special-effected production) "the anti-masque dominates the entertainment, and the masque appears to be tacked on." That gave Jonson more room than usual to vent against the Puritans, and commerce. Mickel, *Ben Jonson's Anti-Masques: A History of Growth and Decline*, 111. Always the ironist, he delivered this eleven months after *Love Freed From Ignorance and Folly* (1611).
- 26 John Peacock, *The Stage Designs of Inigo Jones: The European Context*, 38.
- 27 Allardyce Nicoll, *Stuart Masques and the Renaissance Stage* (London: George S. Harap and Co., Ltd., 1937), 60.
- 28 *Ibid.*
- 29 *Ibid.* 66–79.

- 30 Jonson wrote only two masques for Charles I. Needless to say, Charles I also fell out of favor, was finally beheaded in 1649.
- 31 Yet another ripe phrase from Jonson's *Omnipotent Design*. (1631), innumeros studies. See note 3.
- 32 See Allan H. Gilbert, *The Symbolic Persons in the Masques of Ben Jonson* (Durham: Duke University Press, 1948), a compendium. Let us not underestimate what Jonson did with these obvious symbols, so much a part of Baroque allegory. Among the most telling were his "noir" symbols (my term; more on this in the second volume), like the following misogynist's conceit (98–99).

Falsehood—"A woman with two faces, one of a beautiful young woman, the other of an ugly old woman. Her shoulders and breasts are naked; she is clad in yellow to the mid-calf; she has feet like those of an eagle, and the tail of a scorpion, which appears as long as her legs; in her right hand she holds two hearts, and in her left a mask."

Then he decodes the costuming of the body: yellow means betrayal, deception; two hearts as wishing and not wishing, the mask for frauds to suit her desires; the scorpion as concealed poison; eagle, "a bird of prey, to take away the property or the honor of others." Someone should put that demon on the cover of a history of noir sexism; whatever *he* did wrong came from *her* falsehood.

- 33 Stephen Orgel along with D.J. Gordon and Roy Strong have been called the mythographic" school of courtly masque. The sub field. has reemerged since 1980, particularly around "micropolitical" studies, with a nod to Ben Jonson's phrase in *The Masque of Hymen* (Hymenaei), "sound[ing] to present occasions " Douglas Lanier, "Fertile Visions: Jacobean Revels and the Frolics of Occasion," *SRL Studies in English Literature 1500–1900*, 39.2 (1999), 327. We also have to privilege the New Historicists (cited, for example, by Lesley Michel, 102–104), particularly the influence of Stephen Greenblatt.

I realize that my work might resemble New Historicism, but it grew out of other sources: my multiple skills, from history to art and film history; My retracing of humanist Marxism, and of Foucault and Barthes; my writings on media, and on Los Angeles since 1978; and my literary interest in the thin line between fiction and historicized construction. Thus, I only mention Orgel in the text (a strong influence me for this chapter). In my view, Stephen Greenblatt expands rather than critiques Orgel; I mean that very much as compliment. Greenblatt has been a reigning theorist

on Elizabethan and Shakespeare studies since the eighties, initiating debate on nascent colonialism, and, more importantly, debate on how to research textuality, where the reader as performer completes the authoring. Still, his work rarely centers directly on masque itself or on special effects, more on “unmasking,” on embedded context and resonance. And yet, as literary historian Geoffrey Hartman explained (1992), “however much Greenblatt is on the side of disenchantment, he wants to get back to enchantment.” Or as Frye called it, back to the “capricious ornament,” “the imaginary set on fire.” (*Spiritus Mundi*, 82)

A few terms directly related to the discourse on masque:

**Mythographic masque:** Within the text. The threat aestheticized in anti-masque is cleanly rebutted by the courtly authority that takes over, and then begins the masque. This narrative model—the anti-masque spirited away by the masque—is featured in many textual studies of masque since the sixties, in search of political allegory

**Micropolitics** (borrowing from Foucault as well as Deleuze). Within/Without the court. The ecosystems of courtly intrigue and masque are too messy to be easily confined to a simple mythographic equation. Anti-masque is not simply zany (as in *zanni*, carnivalesque critique), while masque is the magisterial. Within the court as well as on the streets outside, critique drew from urban myths high and low. Thus, micropolitics are a paradoxical, even nomadic frame of reference, essentially a cultural materialist argument about a suffocatingly ritualized courtly theater (and theatrical intrigues at the court itself).

**Theatricality:** Within/Without the theater. The spectrum of interactive codes in public theater—in a Baroque culture, where politics, religion, and class are masqued and masked (hidden) on the streets themselves; from religious pageants to theater itself, to home life to street events among the popular classes.

**Performativity:** Among the performers. The gestures themselves that reflect theatricality, particularly those that reveal gender, hierarchy, sexual choice, etiquette/fashion, and the body.

- 34 *Ibid.* Selections from this quote, with solid analysis appear in Peacock’s *The Stage Designs of Inigo Jones: the European Context*, 162.
- 35 Ben Jonson, *The Characters of Two Royal Masques* (London: Imprinted for Thomas Thorp, 1605, 1608).
- 36 In England, bear-baiting was among the grimmest of these “popular” outdoor entertainments. A bear was chained to a post, and made to

fight mastiffs, in a gory mess. Also, a blinded bear would be chained, then whipped to death slowly by six men (ca. 1600). Peter A. Bucknell, *Entertainment and Ritual, 600 to 1600* (London: Stainer and Bell, 1979), 158. Shakespeare and others mention these bizarre spectacles.

- 37 Ben Jonson, introductory notes to *The Masque of Queens* (1616), *Ben Jonson's Literary Criticism*, ed. James D. Redwine, 147.
- 38 By jesting, I mean *buffo*: antic, musical-comedy bits; as in *buffare*, to puff," and buffet, "a jest."
- 39 *The Cambridge History of English and American Literature* (New York: Putnam, 1907–1921), vol. VI, chapter XIII.
- 40 The sword dance as mumming (masked events) was a pre-Christian remnant, a precursor to tournament.
- 41 Bartholomew Fair, the largest of its kind in seventeenth-century England, was held in West Smithfield, London, every August 24. In addition to horse trading, near stalls aching with foodstuffs and ale, in view of the-atrials, this fair was famous for serving a very large roasted pig. Thus, a hugely fat person could be called a Bartholomew pig, i.e., Falstaff (2 *Henry IV* ii. 4). By contrast, in France, August 24 is a grim date on the calendar, recalling the fierce Saint Bartholomew's Massacre of Calvinists in Paris, 1572. It is equally gruesome in Romania, the day when Dracul had 30,000 merchants and boyars impaled at Barsov, 1459. (Odd how this list takes on a grand guignol, dark comedic quality.) August 24 started as a Roman festival to ancestors, then a Germanic pre-Christian feast to Odin, also legendarily a day of weather marking: clear skies meant a prosperous year to come. By 1100, it honored the martyrdom of Saint Bartholomew, who was flailed alive, thus became the patron saint of butchers. Fairs on Saint Bartholomew's day are still celebrated in northern England, in Wales, in Bologna (the Feast of the Pig) and for fifteen days each year in Luxembourg. (The Flailing of Saint Bartholomew is featured in special-effects films *The Cell* and *Hannibal*, both in 2001.)

Grisly ironies are like acid reflux, forcing an involuntary laugh or cough. Speaking as a butcher's son, I find butchering funny, though slaughtering is not. Animal slaughter is too anthropomorphic. My father worked as a kosher slaughterer for a few weeks, but had to quit because the lambs sounded like children when they died.

- 42 Jones apparently learned about Callot's work mostly after 1630, when connections with Jonson had diminished considerably. What we have, then,

- is an indicator of one man's taste, not as clearly an influence. Also, see note 6; and Peacock chapter on the greater outdoors.
- 43 *Caprice* was a specific term, referring to illustrations by a court engraver that did not follow the king's ideology, that tended to be a bit grimmer, more ironic. Jones also produced "caprices," and of course, later, we recall Goya's *Capriccios*.
- 44 Among Callot engravings cited in Jones biographies: poses from the *Caprices* (1617: dwarfs, grotesque couples, musicians); the *Grotesque Dwarfs* series (1622); and the *Gardens of Nancy* (1625). (See, for example, Peacock's *Inigo Jones*.) What strikes me also are Callot's recording of large fairs, of "nautical" floats for entrances (Lord Chamberlain; Duke of Lorraine); of theatrical extravaganzas (Jousting at the place de la Carriere in Nancy). It is less clear how much Jones knew much about Callot's *Miseries of War* series (1633), or *The Temptation of Saint Anthony* (1635), of Callot's more diabolical responses to the Thirty Years' War.
- 45 Lesley Mickel, *Ben Jonson's Antimasques: A History of Growth and Decline*, 23ff.
- 46 John Brewer, *The Pleasures of the Imagination: English Culture in the Eighteenth Century* (Chicago: University of Chicago Press, 1997), 5.
- 47 Allegories as masked as metaphors.
- 48 "The Storming of the Winter Palace" (sometimes called "The Staging" of the Winter Palace) was a mass action theatrical event, held on November 7, 1920, written, directed, and designed by Meyerhold, Annenkov, Evreinov, and Popova. Over 100,000 spectators watched as the red construction on the left broke into battle against the white construct on the right (Kerensky, who flees and is chased to the palace gates). Nearly three thousand Red Guard soldiers joined the performance, waved bayonets, adding to the tanks and armored cars used as props. They were joined by nearly as many actors, dancers, students, and urban proletariat. I have always felt that this event lingered in the minds of various young theater artists, notably Eisenstein when he staged the storming of the Winter Palace in *October*, seven years later.
- 49 There are, of course, narrower and often odious definitions of agit-prop. First, agitprop was coined by Bolsheviks during War Communism (circa 1919–1920). Since 1968, the term has resurfaced, often as adjective, frequently to suggest leftist ideology gone too far in theater and film, polluting the narrative like cheap cigars. I had to put those broad meanings aside. No need to elaborate why, or beat a truly dead horse. Narrowly understood, agitprop was a theatrical, multimedia practice during the

twenties, mostly in the Soviet Union and Germany, developed by socialist artists. It resembled anti-masque, but transferred back to public spaces. Among many sources on agitprop: Szymon Bojko: "Agit-Prop Art: The Streets Were Their Theater," in Richard Hertz and Norman Klein, *Twentieth Century Art Theory* (Englewood: Prentice-Hall, 1990; essay pub. orig. 1980); Hassan Tehranchian, *Agitprop Theater: Germany and the Soviet Union* (Ann Arbor: University Microfilms, 1983; orig. 1982); Richard Bodek, *Proletarian Performance in Weimar Berlin: Agitprop, Chorus, and Brecht* (Columbia, North Carolina: Camden House, 1997).

- 50 *Trauerspiel*: "song of grief"—seventeenth-century German royal-martyrdom dramas, not unlike Regency revenge dramas in eighteenth-century England.

See Walter Benjamin, *The Origins of German Tragic Drama* (London: Verso, 1977; orig. 1925).

While Walter Benjamin was busy writing *The Origins of German Tragic Drama*, about Baroque theatrical hierarchies, he met Asja Lacis, who introduced him to Brecht, and to socialist forms that suggest the anti-masque. Susan Buck-Morss, *The Dialectics of Seeing: Walter Benjamin and the Arcades Project* (Cambridge: MIT Press, 1989), 18–19.

- 51 Northrup Frye, *Spiritus Mundi: Essays on Literature, Myth and Society* (Richmond Hill [Canada]: Fitzhenery and Whiteside, 1991; orig. 1976), particularly the chapter "Romance as Masque." Also as structuralist theory, forms of masque, i.e., "ideal" masque as the exaltation of the audience; masque and the "myth-play," in *Anatomy of Criticism* (Princeton: Princeton University Press, 2000; orig. 1957), 287–293.

- 52 Briefly, the Neoplatonic order of things (Great Chain of Being, axis mundi):

God, Prince, Mankind

Animals, Vegetable Life in service of higher. forms)

Neoplatonic Triad (in defense of Hierarchy)

Becoming (journey)

Rapture (soul is cleansed)

Reversion (return to innocence after ecstasy)

R.T Wallis, *Neo-Platonism* (London: Gerard Duckworth and Co., 1995; orig. 1972), 66, 67, 170–172

- 53 John Shearman, *Only Connect: Art and the Spectator in the Italian Renaissance* (Washington, D.C.: The National Gallery of Art, and Princeton University Press, 1992), 180. (Bollingen lectures.)

- 54 A recent summary of studies about Neoplatonism in the arts from the Renaissance into the Baroque: John Hendrix, *The Relation Between Architectural Forms and Philosophical Structures in the Work of Francesco Borromini in Seventeenth Century Rome* (Lewiston, N.Y.: Mellen Studies in Architecture: 2002), number nine. A classic earlier source: Ernst Panofsky, "The Neoplatonic Movement in Florence and North Italy," in *Studies in Iconology: Humanistic Themes in the Art of the Renaissance* (New York: 1972), 129–169. Also, Leibniz's *Monadology*, section 47.
- 55 John Hale, *The Civilization of the Renaissance* New York: Touchstone Press, 1995; orig. 1994), 137.
- 56 Stephen Orgel, "Introduction," *The Tempest* (Oxford: Oxford University Press, 1987), 20–22. Also, Shakespeare, Neoplatonism, and court mathematician Dr. John Dee.
- 57 *Ibid.*, 46, 181. Also, the influence of a masque by John Campion.
- 58 Leigh Foster ed. *Choreographing History* (Bloomington: Indiana University Press, 1995).
- 59 Northrop Frye, *Spiritus Mundi*, 169.
- 60 *Ibid.*, 159.
- 61 Thomas Campion, *Lord's Masque* (1613), <http://www.luminarium.org/editions/lordsmask.html>.
- 62 Apparently, at the masque *Solomon and Sheba* (1606), the lady who played the Queen of Sheba "overset her caskets into the Danish Majesty's lap, and fell at his feet, though I rather think it was in his face." More generally; "most of the presenters went backward, or fell down; wine did so occupy their upper chambers." Reported by John Harrington, nephew of Elizabeth I, [web.uvic.ca/shakespeare.Library/SL](http://web.uvic.ca/shakespeare.Library/SL).
- 63 *Chain of Being* (COB), by Limestone Publishing, 2002.
- 64 *Axis Mundi*: the name of a Marvel Universe terrorist hacker consortium.
- 65 Margaret Wertheim, "The Medieval Return of Cyberspace," in *The Virtual Dimension; Architecture, Representation, and Crash Culture*, ed. John Beckmann (New York: Princeton Architectural Press, 1998), 55.
- 66 John Milton, *Paradise Lost*, Book I, lines 45–48. And of course, Milton's elegiac masque *Comus* (1634).
- 67 Henry Vaughan, *The World* (1650), lines 51–56.
- 68 Ben Jonson, *The Characters of Two Royal Masques* (London: Imprinted for Thomas Thorp, 1605, 1608).
- 69 *Ibid.* Selections from this quote, with solid analysis, appear in Peacock's *The Stage Designs of Inigo Jones: the European Context*, 162.

- 70 Jean Savaron, *Traité Contre les Masques* (Paris: Chez Adrian Perier, 1611), third edition. Published in 1608, two years before the assassination of Henry IV in 1610.
- 71 Mary Sullivan, *Court Masques of James I: Their Influence on Shakespeare and Public Theaters* (New York: G.P. Putnam's Sons, 1913), 233.
- 72 Peacock, 208–216. Also, Allardyce Nicoll, *Stuart Masques and the Renaissance Stage*, 40.
- 73 *Ibid.*
- 74 Peacock, 210–211.
- 75 *Conspicuous display*: term drawn from Thorstein Veblen, to contrast Baroque glamor with conspicuous consumption by 1900.
- 76 See: Jeffrey Ravel, *The Contested Parterre: Public Theater and French Political Culture, 1680–1791* (Ithaca: Cornell University Press, 1999); and James H. Johnson, *Listening in Paris: A Cultural History* (Berkeley: University of California Press, 1995).
- 77 Robert Kronenburg, *Portable Architecture* (Science and Technology Books, 1996). Kronenburg makes a distinction between the Stones concert design and Pink Floyd, as if between Bernini and Borromini. Also, as portable: there is the art of inflatable architecture, including sixties work of Jeffrey Shaw.
- 78 See Norman M. Klein, “Instruments of Power: Notes on the Future of Media,” in *Iconoclasm: Beyond the Image Wars in Science, Religion and Art*, ed. Bruno Latour and Peter Weibel (Karlsruhe, Germany, and Cambridge, Mass.: Center for Art and Media, ZKM; and MIT Press, 2002).
- 79 “Filmmaker Says U.S. Soldiers Watched Massacre of Taliban,” *Reuters Asia*, Dec. 18. 2002.

## Happy Imprisonment: Labyrinths

- 1 Interview. with Jon Jerde, 1993. Same expression repeated in media interviews as well. The seventies generated much of the discourse back toward the bottom twenty feet that Jerde mentions. Architect Bernard Tschumi implied the same bottom twenty feet, when he used the term *space between*. (With my own set of meanings, I have used this term “space between” for archival fiction, media narratives, and fact/fiction.) Installation artists often aestheticize the critical problem of space-between navigation. German reception theory (Jauss) and Situationist theory expanded

- the debate on audience navigation into the seventies as well. Also, theories on spatiality (including Lefebvre, Bachelard, even Bakhtin on chronotope) were widely studied in that transitional period, before the Cold War finally wound down and the heroic era of scripted spaces took off in the 1990's.
- 2 Chris McGowan and Jim McCullaugh, *Entertainment in the Cyber Zone: Exploring the Interactive Universe of Multimedia* (New York: Random House, 1995), 70–71. In interview (by Chris McGowan) of Will Wright, the designer of SimCity.
  - 3 “A Basic Introduction to Cheat Codes,” on Geo Cities site in early 2000's.
  - 4 Circa 2003, see CheatCodes.com or trainerscity.com. By 2022, there are dozens of sites dedicated to cheat codes, game hacking; open sites for cheat codes to a specific game; and how to exploit cheat codes in real life. Thus, we find the Trump Cheat Code; and Democracy 3: Cheat Code Central. The shift from cheating inside a fantasy consumer scripted space—like a game or casino—has emulsified into grievance cheat codes for undermining basic constitutional and ethical norms. Cheat Codes (with that same idea of a consumer initiate happily cheating herself) are now a capitalist analytical tool, and a political weapon.
  - 5 “A Basic Introduction to Computer Game Cheat Codes (2003).”
  - 6 Simoleons: currency in the Sims. Typing *rosebud* or *klapaucius* gets you 1,000 simoleons.
  - 7 For update to Windows 95. Game had been released in 1993, under Windows 3.1. See “Sim City 2000,” *Game Revolution*, 1995 edition. Also: Lim ChongHan, “Latest PC Cheats,” Sim City 2000, Games Domain (1999). “Since their first games, Maxis programmers have managed to sneak ‘cheat codes’ into the game.” *SIMmering Bacon*, online site 2003.
  - 8 Charles Perrault, *Le Labyrinthe de Versailles, 1677*, ed. Michel Conan (Paris: Editions du Moniteur, 1982), 3–4. Copied from edition at the Bibliotheque Nationale. Also, Sebastien LeClerc's suite of engravings, *Le Labirinthe de Versailles (1677)*, with text by Perrault, etc. Here the fountains are featured, as designed by Charles Le Brun, and torn down in 1774, to make way for the Bosquet de la Reine (an arboretum blending into tree plantings).
  - 9 The appeal of La Fontaine's *Fables* shifted as his star rose or fell at the court of Louis XIV Thus, the presence of his fables in the Gardens were part of the emerging “struggle” between the Ancients and the Moderns—with Perrault also at the center stage. The cautions in La Fontaine's fables, and the symbols behind his animal characters, were perceived by conserva-

- tives at court as deeply ideological. To some courtiers, a walk through the Labyrinth probably suggested the maze of cultural intrigues at Versailles.
- 10 See Michael Conan, "The Condundrum of Le Nôtre's *Labyrinth*" in the anthology *Garden History: Issues, Approaches, Methods* (Washington: Dumbarton Oaks Research Library and Collection, 1992)—a convincing examination of the discourse of power within the Labyrinth (referring, of course, to the methodology of Michel Foucault). Descriptions of the Labyrinth of Versailles proliferated during the first half of the eighteenth century, in French, English, and German (some of these pamphlets are at the Getty Research Library). The writers tended to assume that the labyrinth was part of the *theatricality of power* at court. They linked it to a mosaic of activities throughout the gardens at Versailles—with other retreats or sites that Le Nôtre designed near the Labyrinth, to the full effect of courtly ritual and theater at the Salle de Bain or the Isle Royale.
  - 11 Traditionally in France, *noblesse oblige* "entailed" the aristocrat to serve in war, to pay for his gift from God, his superior class, by risking his blood (to achieve *gloire*), or by showing mercy to the peasants on his estates. However, since nobles in Louis XIV's reign were encouraged to live away from their private armies—and since the bourgeoisie (*honnêtes hommes*) at Versailles were fierce allies of the king—noblesse oblige took on a fanciful meaning, part of a scheme by the king, in various chivalric dressed balls or equestrian displays. Pretend you are a Persian aristocrat, pretend you are an Ottoman on horseback. These glamorous events on behalf of *gloire* and noblesse oblige became part of the master plan of the king to convert aristocratic resistance into scripted spaces and moral drift.
  - 12 See Umberto Eco, *The Name of the Rose* (New York: Harcourt-Brace, 1983; orig. 1980).
  - 13 Pliny the Elder (23–79), *Natural History* (77 C.E.), Book 36.
  - 14 Hermann Kern, *Through the Labyrinth: Designs and Meanings Over 5,000 Years* (Munich: Prestel, 2000; orig. 1983), 21, and with vast illustrated examples. Also see: Bernard Rudofsky, *The Prodigious Builders* (New York: Harcourt Brace Jovanovich, 1977).
  - 15 For example, <https://www.labyrinthsociety.org/>.
  - 16 See Penelope Reed Doob, *The Idea of the Labyrinth from Classical Antiquity Through the Middle Ages* (Ithaca: Cornell University Press, 1990); also W. H. Mathews, *Mazes and Labyrinths: Their History and Development* (New York: Dover Publications, Inc., 1970; orig. 1922).

17 Legends remain that the labyrinth at Chartres hides the Ark of the Covenant, so mystified were these medieval maze systems. I am struck, of course, by the similarity of this tale with the structure of *Indiana Jones and the Last Crusade*; the path as labyrinth, hidden inside a church in Italy. In fact, all the Indiana Jones films are built around a labyrinth where, contrary to Sherlock Holmes stories (deduction confounds the mystical), proof goes in reverse: behind the scientific lies a labyrinth where mystical “wonder” abides. Spielberg’s *Young Sherlock Holmes* operates in much the same way: the mystical labyrinth behind the mundane shrine. In special effects, the scientific pretends to be magical, and in the story, magic hides behind science.

But this is not meant as religious faith. In special effects, this magic/machine split is understood purely as a narrative device, not as an ontological proof of Martians or the Holy Grail (or Lucas’s “the Force”). The movie “shows” us theology. In that sense, the Indiana Jones films (and, *Young Sherlock Holmes*) are visual essays on the phenomenology of special effects, on the experiential irony between magic and machine. The labyrinth effect, therefore, is an homage to religion, as well as a parody of religion, another twist on “the narrative is about power” so often discussed in this book.

18 For example, Northrop Frye’s description of Jonsonian anti-masque (*Masque of Augurs, Pleasure Reconciled to Virtue*). “*Antimasques* often begin in a thick mazy wood, a labyrinth where there is no certain direction.” (Frye, *Spiritus Mundi: Essays on Literature, Myth and Society* (Ontario: Fitzhenry and Whiteside, 1991; orig. Univ. of Indiana, 1976), 163. Frye’s structuralist method, informed by his vast study of Romanticism, is applied to a paragraph about the staging in seventeenth-century special-effects theater. (See chapter on masque.)

19 See note 22. Also, of course, Resnais’s *Last Year at Marienbad*, Cocteau’s *Beauty and the Beast*, among dozens of films featuring labyrinth experiences, particularly horror films or children’s fantasy adventures.

20 The degree to which “no exits” (pun of Sartre) remain are the key to a computer game’s appeal. The breakaway hit *Myst*, announced (in its user’s manual) that “the puzzle you encounter will be solved with logic and information,” and that “the key to *Myst* is to lose yourself in this fantastic virtual exploration.” Also, a similar argument about scripted spaces in the mall franchise *Virtual World*, in its brochure: “You are free to move and interact at will because all interaction is between people and people

are unpredictable. Every adventure is unique.” Each company decides how ergonomic to make the program, how much implied surveillance, how much randomness makes the effect immersive and habituating. Stated another way: each company decides what ratio between happy imprisonment and implied subversion makes the labyrinth charming.

- 21 Freud as fiction: I am presenting Freud here as a builder of social imaginaries (seductive maps) that are extremely effective for the fictions relying on special effects, in cinema and literature.

(Note 2022: My novella, *Freud in Coney Island* (Otis Books, 2006). It is also featured in Zoe Beloff's *The Coney Island Amateur Psychoanalytic Society and its Circle* (2009). Sites from her 2010 exhibition, <http://www.zobeloff.com/dreamland-installation>.

Beloff's project is a brilliant example of a literary media category known since 2002 as the database/archival narrative. It comments on scripted spaces, across politics, customs, historiography, picaresque fiction.

Another key example is *The Imaginary 20th Century*, a comic historical novel (with 2000 images and novel and essays (2016 ongoing), co-directed and written by Norman M. Klein and Margo Bistis. See [Imaginary20th-Century.com](http://Imaginary20th-Century.com)

Also, *Norman Klein's Bleeding Through: Layers of Los Angeles, Twenty Years Later*, ed. Jens Martin Gurr (Transcript/Columbia University Press, 2022)

This is a revised edition of the 2002–2003 interactive novel with 1000 assets. Produced for its 2002 exhibition by ZKM/USC Labyrinth. Author, Norman M. Klein; Designers, Rosemary Comella, Andreas Kratky.

- 22 Among the more useful bibliographies on Piranesi, also a review of key influences upon him, Mauricio Marini, *Le Vedute di roma di Giovanni Batista Piranesi* (Rome: Newton Compton editori, 1989). A few established background sources: John *The Mind and Art of Giovanni Batista Piranesi* (London: Thames and Hudson, 1978); Peter Murray, *Piranesi and the Grandeur of Ancient Rome* (London: Thames and Hudson, 1971).

- 23 Many of Piranesi's *vedute* were indeed accurate representations of eighteenth-century Rome. But just as any were imaginary, or even fanciful. Clearly, he liked to merge wish fulfillment with what the eye reveals, like other great illustrators of the city, even down to Gustave Doré's *London* (1872), where aspects of Strasbourg bridges were inserted, almost absentmindedly, into London streets. Of course, both Piranesi's Rome and fore's London have become rather standard. The *vedute*; by definition, is a kind of imaginary It was understood that way very often; or like cinematic *vedute*

- today, it was so convincing, or omnipresent, that the imagos it presented became fiercely engrained in collective memories of the city.
- 24 “The Architecture of Decay: Piranesi and Lebbeus Woods,” part of a project at Columbia University entitled “Visualizing Unbuilt Works.” Possibly influenced by the following from Manfredo Tafuri: “All forms of classical devotion are treated as mere fragments, as deformed symbols, as hallucinating organisms of an ‘order’ in a state of decay” *Architecture and Utopia: Design and Capitalist Development* (Cambridge: MIT Press, 1976), 14.
- 25 Piranesi as the name of various software systems for adding mood to architectural drawings: Piranesi Informatix, Piranesi Soft Paint, Piranesi for Windows, Piranesi 4, Piranesi-CAD International. Some of the applications have literally nuanced the unique curling effect of Piranesi etchings (but in a redundant pattern). Others merely exploit it as a brand name.
- 26 “(Piranesi’s) sense of foreboding was exactly the atmosphere that (Spielberg) was hoping for.” Site on Minority Report, 2003.
- 27 Disney’s *Beauty and the Beast* required obsessive nostalgic research of the French countryside (circa 1690). They wanted French gingham to dance inside shiny occult and Baroque ironies. That’s not quite what they got. Their primary source confused them from the start. They devoted months to reviewing Cocteau’s penultimate version in 1945 of the story, with its breathtaking journey into Baroque wonder. However, Cocteau borrowed heavily from Doré’s illustrations (in 1867) of Perrault’s *Tales* (from 1697). What’s more, Perrault’s *Tales* were especially prudish compared to Grimm. Cocteau loved tweaking that, adding a lusty gleam in the wrong places. Disney’s final compromise was a Rococo operetta from 1867, but in 1700 period dress. In short, Disney’s Baroque is Victorianized pop Romanticism. The ballroom scene is especially lavish in its multi-period details. There is even a Vermeer tucked in one corner. Cogsworth, the major-domo automaton, says: “If it’s not Baroque, don’t fix it.”
- 28 Oscar Wilde, *The Truth of Masks*, compiled by Margaret Lantry, 1997, from a volume published in 1913 (London: Methuen), 239 (<https://www.ucc.ie/ce/elt/>).
- 29 Grahame Smith, “Dickens and the City of Light,” paper delivered in March 1998, for conference on Charles Dickens and his work (<http://landow.sty.brown.edu/victorian7/dickens>). Again, Piranesi appears as a synonym for the grimy maze of the crowded city.
- In the nineties, it was difficult to find a text on architectural fantasy or

- grotesquerie where Piranesi was not featured or cited, or simply as an adjective to describe the abject space—also the romance of the irrational linked to cyberspace. Piranesi was a healthy alternative to “Procurian computation,” as architect Marcos Novak put it, to “the romance of the irrational in cyberspace “
- 30 In fact, as is often cited, De Quincey was told by Coleridge incorrectly that Piranesi’s *Carceri* were called “dreams.”
- 31 Thomas De Quincey, *Confessions of an English Opium Eater* (Penguin Edition), 106. An oft-quoted passage, found even in the diaries of William Burroughs, “The Pains of Opium” (<https://www.bigtable.com>).
- 32 *Ibid.*, from Wordsworth’s *Excursion*, Book II.
- 33 From Nodier (1836): “the Piranesi ruins about to collapse “ in the story, “Piranèse,” cited by Anthony Vidler, in *The Architectural Uncanny* (Cambridge: MIT Press, 1996; orig. 1992), 37. Vidler cites the De Quincey passage (who doesn’t?), also John Martin’s paintings, and other sources.
- 34 Roberto Sanesi, “Piranesi or the Organization of Ambiguity, “ in *Piranesi e il suo tempo 1720–1778*, ed. Enzo Di Martino et al. (Gorizia 1998).
- 35 Sergei Eisenstein, “Piranesi, or the Fluidity of Forms,” in Manfredo Tafuri, *The Sphere and the Labyrinth: Avant-Gardes and Architecture from Piranesi to the 1970s*, tr. P. d’Acerno and R. Connelly (Cambridge, Mass.: MIT Press, 1987), 67.
- 36 *Montage of attractions* (essentially 1923) is a term used by Eisenstein to describe the effects in the theater that later inform his system of montage in cinema.
- 37 Hieratic as in ancient priestly imagery lost, except as ruins, traces of lost cults.
- 38 For years, I tried to guess for which film Eisenstein planned his Piranesi sketches. He published his essay “Piranesi or the Fluidity of Forms” in 1946, so I tend to guess one of the *Ivan the Terrible* films.
- 39 *Ibid.*, p.54.
- 40 Umberto Eco, *Travels in Hyperreality*, tr. W. Weaver (London: Pan Books, 1986), 43. See also Eco’s *The Name of the Rose*, structured as the labyrinth of Adso and William, so constituted that every path can be connected with every other one. It has no centre, no periphery, no exit, because it is potentially infinite. The space of conjecture is a rhizome space. The labyrinth of my library is a rhizome space” Also cited in *Mazes and Labyrinths site* ([cccw.adh.bton.ac.uk/schoolofdesign](http://cccw.adh.bton.ac.uk/schoolofdesign)).
- Then, of course, with the term *rhizome*, one is directed toward the vastness

of Deleuzian theory, another reading of labyrinth as a master system, glorying in the labyrinth, effect. However, with Deleuze, the rhizome is practically undifferentiated, unboundaried space, while *le pli* (the fold) is insinuated, serpentine space. Whether labyrinth can be (rhizomatically) undifferentiated—let us say, similar to Bergson's sense of the virtual—introduces a vast ontological set of questions, outside the discipline of a book simply on special effects. Labyrinth becomes a process of getting lost, losing the senses, acculturating to sensory displacement; vaguely like my “in-vente” allegory on blindness (That allegory, a tiny fiction “translate “ from the German, was meant as a literary special effect, in honor of Poe and Diderot’s s pre-sci-fi “hoaxes “ It reminds me that fictive gaps—evidence that you wish you could find—will always be a part of tying together even the most exacting scholarship.)

- 41 *Labyrinth* (journal about ‘Sharing Information on Learning Technologies’), August 1994 (Web based, sponsored through the Maricopa Community Colleges, in Arizona). The journal began in 1992, with a letter from the editor defining the labyrinth as “symbolic for a journey ... down pathways and exposure to random events.” It was not as much a maze as a unicursal figure. By 1994, the term mosaic appears to suggest a map/ multi-task way of navigating the Internet (Mosaic is also a term linked to McLuhan). Earlier nineties quotes in various sites about the chaotic definitions of labyrinth (“a complicated nature”)—meant to suggest the Internet—include: “The serpent fast sleeping soon he found, in labyrinth of many a round self rolled” (Milton); or “the labyrinth of mind” (Tennyson). Also, *Labyrinth Connections*, a service provider from Melbourne (began in 1995). And the *Grey Labyrinth*, a cyber gallery resembling a cabinet of curiosities showcasing local artists; as well as *Anime Labyrinth*; *Labyrinth. Books*; the *Labyrinth*, another virtual gallery; the term *labyrinth* associated with techno music.
- 42 Jacques Attali, “The Labyrinth, of Information,” translated often on the Web, but originally in *Le Monde*, Nov. 9, 1995, 181.
- 43 Troy games refer to medieval puzzles, echoing the maze associated with the conquest of Troy.
- 44 The Labyrinth at Georgetown University began in 1993, concentrates on medieval studies, has supported related projects, and an extensive link of, sites, as well as bibliographies, essays, etc.
- 45 The Electronic Labyrinth (Virginia) also began in 1993; and at around the same time *Labyrinth Magazine* at the U.S. Naval Academy.

- 46 Dromenon, a synonym for one variety of labyrinth, is another labyrinth website with many links, emphasizing the revelatory journey.
- 47 Site on <https://www.bluemarble.net> (circa 2003), a “neo-Cubist maze” modeled on images of the Indiana University cyclotron, one of the rarer attempts to merge industrial design with labyrinth.
- 48 “The dark labyrinth intuited by Borges”: “Piranesi’s Desire to be a Painter” (<https://www.karaartservers.com>).
- 49 Jorge Luis Borges, “The Library of Babel,” in *Labyrinths: Selected Stories and Other Writings*, ed. James E. Irby and Donald A. Yates (New York: New Directions, 1962), 51.
- 50 From Arden Reed, *Romanticism and Language* (Ithaca: Cornell University Press, 1984), 209ff. Also quotes drawn from Althea Hayter (*Opium and the Romantic Imagination*), or W.T. Mitchell (*Hogarth, Hugo and Blake*).
- 51 See Michael Conan, “The Conundrum of Le Nôtre’s *Labyrinth*,” in *Garden History: Issues, Approaches, Methods*, ed. John Dixon Hunt (Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1992).
- 52 It took decades for “remotes” engineering to find its way, an interesting look at how a prosthetic extension (in McLuhan’s terms) turns into a scriptor of space. “Lazy Bones” was a bit too clumsy in its 1950 incarnation (Zenith Electronics), not facile enough to induce a labyrinth, and very expensive. The thick wiring (to turn the dials from your couch) made it clumsy, and there were very few channels anyway. However, in 1955, the Flash-o-matic, a wireless remote, flashed to tubes inside the screen, was more ergonomic, but not more mobile. Flash-o-matic had to spark photo cells within the set; that forced the viewer to aim very carefully, a strain on the wrists. Also, in full sunlight, Flash-o-matic cells stopped noticing the remote. Next, in the sixties came ultrasonics, and early transistor remotes. But not until infrared or IR technology in the eighties do we see the remote control that has transformed TV viewing.
- Note also: radio control engineering, that is, parallel functions in heavy industry; and robotic uses of televisual technology—underwater, in space. Today, of course, remotes are about to go out of control. On the humane side of the ledger, the nano potential for remote control may help lead to vision installed like a hearing aid, but inside the optic nerve itself. Don’t click, just blink. However, is a telekinetic implant far away (pardon the pun), remote control inside the brain itself? Or to reverse the charge, *Manchurian Candidate* brainwashing through implants? Indeed, we now live ten minutes past the so-called future, but still cannot solve

- the simplest need for freedom, nor curb our impulse to control imaginary enemies.
- 53 Tafuri, *The Sphere and the Labyrinth*, 54.
- 54 On the Internet, this is probably the most quoted passage from Borges; from the final paragraph of “The Library of Babel” (1941), here from Borges, *Labyrinths*. That is a standard older translation, among many since. The newest translation from Andrew Hurley (*Jorge Luis Borges: Collected Fictions* (New York: Penguin Books, 1998)) seems more accurate. For example, it uses the word “periodical” (a pun) rather than “cyclical.” But cyclical seemed closer to the spirit of how it is read today, as in browsing and spiraling “indefinitely” (opening paragraph).
- 55 In the spirit of special effects, I could not resist beginning with, a translation that could not exist, a scripted space between the lines. In defense of blindness as labyrinth, see Bernard Rudofsky, *The Prodigious Builders* (London; Secker and Warburg, 1977), 336 (labyrinth as a mine shaft), 338 (as bowels of the earth beneath a city), 328 (“the single most terrifying ingredient ... of labyrinth ... is darkness”), as philosophical blindness—reference from Hegel (335: paths between incomprehensibly intertwined walls, to induce “meaningful ambling among symbolic riddles”).
- 56 “Blindness” suggests the debates since the Enlightenment on the shocks of special effects associated with the sudden loss of sight, in stories by Diderot, Hoffmann, in Freud’s discussion of the uncanny (unheimlich), and countless applications of the problem in literary theory, in phenomenology, even architectural theory (e.g., Anthony Vidler, *The Architectural Uncanny* [Cambridge: MIT Press, 1996.]).
- 57 The parable is modeled on German Symbolist allegories written just before World War I. In this case, the due *anesthetized* refers to the metonymy of dream that is interfered with by medical technology; a rather prophetic image if this had been published before the summer of 1914.
- 58 From the first chapter of *Don Quixote*, tr. J.M. Cohen (London: Penguin Books, 1950), 58.
- 59 Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth Century French Thought* (Berkeley: University of California Press, 1994; orig. 1993), 31, 62 (Macau: phoneme as labyrinth), 229 (Bataille), 500 (Deleuze), 535 (Iragary). Among Jay’s many useful citations is Werner Senn, “The Labyrinth Image in Verbal Art: Sign, Symbol, Icon?,” *Word and Image* 2,3 (1986). And of course, Jay refers to Guy Davenport’s *The Geography of Imagination* (1981), labyrinth as the life symbol of our century,” 51; Dennis

Hollier *Against Architecture*, 72; and the English title of Foucault's *Death and the Labyrinth: The World of Raymond Roussel* (1986).

- 60 Jay, *Downcast Eyes*, 535, 549.
- 61 *Ibid.*, 93.
- 62 Clearly, I am mixing Baudelaire's classic essay "The Painter as the Hero of Modern Life" with points in his poetry where he contrasts ennui with the pulsating activity of a crowded city.
- 63 These are standard in Victorian dictionaries: "labyrinths of the world" ascribed to Tennyson (though so many other writers use that expression); and to Milton, "labyrinth of the mind." *Websters Unabridged Dictionary*, 1913, 879 (<https://www.bibliomania.com>).
- 64 Jose Antonio Maravall, *The Culture of the Baroque: Analysis of a Historical Structure*, tr. T. Cochran (Minneapolis: Univ. of Minnesota Press, 1986; orig. 1975), 154. "A large plaza where everyone assembles pen mell." This also brings to mind the complex scripting within the Mexican *zócalo* or the Tunisian medina. In these spaces, people enter from all four corners; or, in another model, the souks are so circular, they take on a serpentine mazelike presence. To the visitor, such spaces appear to be organic growth, generations of added rooms, but they also are highly scripted indeed (the masque, the cathedral, holidays, class structure). Thus, we also find a collective version of labyrinth where mobs of people merge together, an alternate to the personal labyrinth where one person goes on a journey alone. In this condensed, peopled labyrinth, the audience en masse becomes the central character, often quite literally, for a ritual event, like those in sixteenth- and seventeenth-century piazzas (see also the etchings of Jean Callot). Finally, Maravall refers to labyrinth much the way Foucault writes about Folly, as a directionless state of mind, described often in Spanish literature of the Baroque, with sources as early as Comenius (153). See also Paz, *The Labyrinth of Solitude* (1950), one among many references in Spanish and Latin American literature to this term, as a topos for the condensed mobbed space.
- 65 Walter Benjamin, *The Arcades Project*, tr. H. Eiland and Kevin McLaughlin (German edition, R. Tiedmann, 1982) (Cambridge, Mass.: The Balknap Press of Harvard University Press, 1999), 308–309, citing letter from Baudelaire to Nadar.
- 66 Pierre Rosenthiel, "The *Dodecadecale*, or in Praise of Heuristics," tr. T Repenssek, *October* 26 (Fall 1983; orig. 1982), 25. At the Collège de France, Barthes's last seminar before his death was on labyrinths, co-taught with

- Rosenthiel. A name that would have been fascinating in such a seminar: Henry James on labyrinth. He never seems to use the term the same way twice: as “the absence of ground or intervals” (*Tragic Muse*, ch. 11); as “labyrinth of empty streets” (*Confidence*, ch. 1); as the labyrinth of his consciousness” (*The Golden Bowl*, Preface); as being unconscious (*Portrait of a Lady*, ch. XIII). Clearly, the term migrated across the language.
- 67 Jose Maravall, *Culture of the Baroque*, 154.
- 68 Percy Bysshe Shelley, “Lines Written Amongst the Euganean Hills” (1818), I. 115.
- 69 See the opening pages of Doyle’s *The Sign of the Four*, as Holmes takes a carriage through London streets, where the urban labyrinth is evoked.
- 70 Théophile Gautier, “The Club of the Haschischins,” tr. from *Revue des Deux Mondes*, Feb. 1, 1846 (<https://www.lycaen.org>). That would be essentially the time that Baudelaire, in his dandy period, belonged to the Haschischin, who were located, according to Gautier, in the Ile St. Louis, at an old house (that probably meant medieval for that district in 1846), near the Cathedral of Notre Dame. Gautier gets carried away as he often did) in a primitivist revery. While stoned on hashish, he notices the rooms look out of scale—like Piranesi’s phantasmagoria: “gigantic edifices which cut up the horizon in a lace-work of needles, cuppolas, turrets, gables, and pyramids worthy of Rome or Babylon.”
- 71 Octavio Paz, *The Labyrinth of Solitude: The Other Mexico* (1950), much of it conceived after a visit to Latino Los Angeles; ethnographic essay as labyrinth.
- 72 Jennifer Bloomer, *Architecture and Text: The (S)crypts of Joyce and Piranesi* (New Haven: Yale University Press, 1993; orig. 1989), 77. Also quotes from Guy Davenport on labyrinths, as well as Gassett on Piranesi.
- 73 Jay, *Downcast Eyes*, 424–425. From Ivan Chtcheglov, “Formulating for a New Urbanism.” Jay also cites Chtcheglov on Chinese and Japanese gardens as labyrinths, noticing the ironic public warning at the entrance to the labyrinth at the Jardin des Plantes in Paris: *Games are forbidden here*. Clearly, the Situationists understood the links between spectacle and game structure.
- 74 Nodier on Piranesi: Quoted in Anthony Vidler, *The Architectural Uncanny: Essays on the Modern Unhomely* (Cambridge: MIT Press, 1992), 40.
- 75 *Ibid.*, 440–441.

- 76 Also in *Moby Dick*, chapter 4: Queequeg's tattoos when he embraces Ishamel: "an interminable labyrinth." Ishmael then falls into dreamy memory of his childhood; chapter 85: the anatomy of the whale, and its "vermicelli-like" blood vessels suggest a labyrinth. Both refer to the Minoan labyrinth, as an ominous journey.
- 77 The image of labyrinth is clearly gendered—not a subject directly in the zone of my argument, but important. Often, in fiction by women, labyrinth takes on the sense of memoir, of intimacy: Ariadne's thread, etc.
- 78 Comenius (Jan Amos Kamensky, 1592–1670) was, a beleaguered bishop of the Moravian Church, its Aquinas essentially, and centuries later a prophet for new theories on education. *The Labyrinth of the World* reflects his despair during the first stages of the Thirty Years' War. Catastrophes brought by armies and later by the Peace of Westphalia (1648) led his church into one Babylonian Captivity after another. Even at his death, he was convinced that he had failed to shelter his flock. Also cited by Maravall, 154–155: an influential term.
- 79 Accelerated and decelerated perspective: Terms used by Jurgis Baltrusaitis in *Anamorphic Art*, tr. W J. Strachan (Cambridge: Chadwick-Healey, Ltd., 1977), chapter one.
- 80 William Shakespeare, *Timon of Athens*, Act I, Scene 1. Cited in Alberto Veca, *Inganno et Realita: Trompe L'Oeil in Europe XVI–XVIII se.* (Bergamo: Galleria Lorenzelli, 1980), 92.
- 81 In numerous texts, notably the introduction to *Understanding Media*, McLuhan defines media as the prosthetic extension of the body, not as the telephone or the TV set. This extension becomes a phenomenological illusion that is also a mode of erasure. You lose one sense in order to gather another through Artifice—the earpiece, the vehicle on the road. You cannot hear what is next to you, nor feel the road under your feet, because the medium is the message (or the massage). McLuhan very clearly writes in praise, the blindness wrought by special effects. He has high hopes for the adaptations that it as prosthetic media) forces upon people.
- 82 There are dozens of translations of Comenius's *The Labyrinth of the World*, thus easier to cite chapters. The Spectacles: chapter 4.
- 83 Hans Jacob Christopher van Grimmelshausen, *Simplissimus* (1668), numerous translations. A former soldier's fictional memoir of the madness of the Thirty Years' War, as it was fought in Germany.

- 84 Human Folly suggests the links between institutional madness and the treatment of the mad, as discussed in Foucault's classic *Madness and Civilization*, very much an allegory about the labyrinth of the world, 'during the ancient régime in France.
- 85 Jose Antonio Maravall, *Culture of the Baroque*, 154.
- 86 Stephen Orgel, *The Jonsonian Masque* (Cambridge: Harvard University Press, 1965), 178, 180.
- 87 Gilles Deleuze, *The Fold*, tr. T. Conley (Minneapolis: University of Minnesota Press, 1992; orig. 1991).
- 88 Deleuze's work in *The Difference of Repetition and the Logic of Sense* particularly reflect his deep interest in Nietzschean nihilism (very much a working strategy throughout his writings). For summary of Deleuze/Nietzsche: Keith Ansell Pearson, *Geminal Life: The Difference and Repetition of Deleuze* (London: Routledge, 1999). Among American critics writing about Deleuze as Nietzschean is Sande Cohen.
- 89 Jane Barker, *The Galesia Trilogy and Selected Manuscript Poems* (New York: Oxford University Press, 1997), 153. From *On the Follies of Human-Life, in A Patchwork-Screen for the Ladies* (1723).

## Burning Down Vesuvius: Late Baroque Gizmos and Fiery Illusions, 1750–1780

- 1 Gizmo (gismo), American, etymology unknown: a gadget whose workings are mysterious or forgotten. Usage: circa 1940, a naval term in the U.S., for a thingamajig or whatchamacallit that is mysteriously hidden inside a machine, but makes it run somehow. Could also be an inexplicable mystery, a mechanism that runs by mysterious rules, as in the movie *Pat and Mike* (1952): Spencer Tracy refers to the inexplicable mental "gizmo" afflicting Katharine Hepburn.
- 2 "Della Chinea e da altre 'Macchine di Gioia'" *Apparati architetonici per fruochi d'artificio a Roma ne Settencento* (Milano: Edizioni Charta, 1994), 122. The designs for this *Chinea* were by Paoli Posi (1708–1776). His fame rests mostly on ephemeral (wood and papier-mâché) architecture for festivals like the *Chinea*, which often coincided with celebrations of new papal appointments as well. Commissions for buildings in Rome diminished by the late eighteenth century, part of the decline of lavish Baroque architectural effects (scripted spaces).

- 3 *Ibid.*, 11–12.
- 4 This was one of the last acts of Bernardo Tanucci, prime minister to the king of Naples, before being forced out of office during a revolt. He was the Turgot of Naples—too many sensible policies too late.
- 5 Kevin Salatino, *Incendiary Art: The Representation of Fireworks in Early Modern Europe* (Los Angeles: The Collections of the Getty Research Institute for the History of Art and Humanities, 3: 1997), 23.
- 6 *Ibid.* in *The Mercure de France*.
- 7 *Ibid.* Statement by playwright Jean-Louis de Cahusac.
- 8 See note 36.
- 9 Oscar Brockett, *The History of the Theater* (Boston: Allyn and Bacon, 1974), 280.
- 10 Among Voltaire's plays that rely on massive crowds and expensive spectacle, and accurate local color in costuming: *Alzire* (1736), *Mahomet* (1741), *Semiramis* (1748), and *L'Orphelen de la Chine* (1755).
- 11 James Howley, *The Follies and Garden Buildings of Ireland* (New Haven: Yale University Press, 1993), 106. Also: Ketchum, *Le Desert de Retz: A Late Eighteenth Century French Folly Garden* (1994); Barlow, *Follies and Fantasies; German and Austria* (1994); Jones, *Follies and Grottoes* (1974); Landcaster, *Architectural Follies in North America* (1960).
- 12 Karen S. Chambers, *Trompe L'Oeil at Home: Faux Finishes and Fantasy Settings* (New York Rizzoli, 1991), 135.
- 13 Barbara Maria Stafford and Frances Terpak, *Devices of Wonder; From the World in a Box to Images on a Screen* (Los Angeles: The Getty Research Institute, 2001), 268–269. Alfred Chapuis and Edmond Droz, *Automata: A Historical and Structural Study*, tr. A. Reid (Neuchâtel, Switzerland: Editions du Griffon, 1958; orig. 1949), 108.
- 14 Vaucanson's automaton was featured in a plate in the *Encyclopedia*.
- 15 La Mettrie, *Man the Machine* (1748), in numerous translations. But Mettrie's system removes the Baroque, hierarchical elements from the automaton, and essentially points toward the machine as a blind (and egalitarian) system of order and standardization.
- 16 Benjamin Franklin's experiments in electricity were well remembered in France, from 1751 onward, by philosophes and illusionists alike. Also, of course, Franklin spent much of the revolutionary era as the American sage at the court of Louis XVI.

- 17 Kevin Salatino, *Incendiary Art*. There also was a fashion for fireworks in labyrinths, particularly in Vienna and Prague, 1659–1684. (Hermann Kern, *Through the Labyrinth* (Munich: Prestel, 2000), 239.
- 18 Sir John Van Brugh (1664–1726), playwright and architect, a transition between the Baroque and an eccentric classicism.
- 19 The introductory paragraph of Hobbes's *Leviathan* (1651), very often cited.
- 20 Descartes on the automaton: *Discourse on Method* (1637), Part V.
- 21 Leibniz, *The Monadology*, the famous sections 18 and 64.
- 22 *Ibid.*, section 64.
- 23 Alfred Chapuis and Edmond Droz, *Automata; A Historical anti Structural Study*, 99.
- 24 *Ibid.*
- 25 A legend suggests that Napoleon may have outwitted the automaton by playing a false move, forcing the machine to correct his move, thus proving that the machine was a hoax. As everyone knew, an automaton was Artifice, could not *think*; only a man hidden inside could think.
- 26 Denis Diderot, "Conversation between D'Alembert and Diderot," in (my old edition) *Diderot: Interpreter of Nature*, tr.J. Stewart and J. Kemp (New York International Publishers, 1963; orig. 1936).
- 27 See Elizabeth, de Fontenay, *Diderot ou le materialism enchanté* (Paris: Bernard Grasset, 1981), the chapter on "*la machine merveilleuse*," 222.
- 28 The hydraulic music in the king's grotto that Descartes cites in *Treatise on Man* (1629); often cited since, was designed by Thomas Francini. Aural special-effects environments were fashionable in the seventeenth century, from mechanical birds to echoing gardens.
- 29 A standard nineties definition by the US. Robotic Industries Association. Geoff Simons, *The Quest for Living Machines* (London: Cassell, 1992), 71.
- 30 Thomas Y. Levin, Ursula Frohne, and Peter Weibel, *CTRL Space: Rhetorics of Surveillance from Benthan to Big Brother* (ZKM, Center for Art and Media, Karlsruhe; Cambridge: MIT Press), 2001.
- 31 Henri Lefebvre, *Vers le Cyberanthrope: Contre le technocrates* (Paris: Denoel-Gonthier, Collection Mediations, 1971).
- 32 See also Gaby Wood, *Edison's Eve: A Magical History of the Quest for Mechanical Life* (New York Alfred A. Knopf, 2002), ch. 1.
- 33 <https://www.digitalspace/avatars.com>.
- 34 Among books often linked to the study of automata: Alfred Chapuis and Edmund Gelis, *Le Mondes des Automates* (1984; orig.1928), and with Edmond Droz (descendant of Droz family) *Les Automates* (1949); Gaby Wood,

*Edison's Eve*, 2002; Hillel Schwartz, *The Culture of the Copy* (1996); Barbara Stafford and Fran Terpak, *Devices of Wonder* (2001); Daniel Tiffany, *The Toy Medium*; Tom Standage, *The Turk* (2002); Isaac Asimov, Karen Frankel, *Robots* (1985); Jean Beaune, *L'Automate et ses mobiles* (1980); Catherine Liu, *Copying Machines* (2000); Jean Bedel *Les Automates* (1987); John Cohen, *Human Robots in Myth and Science* (1967); Ray Kurzweil, *The Age of Intelligent Machines* (1990); Donna Haraway, *Simians, Cyborgs and Women* (1991); Daniel J. Hopkin, *Automata* (1991); Otto Mayr, ed., *Philosophers and Machines* (1976); Thomas West, *Flesh of Steel* (1967); Max von Boehn, *Puppets and Automata* (1984); Mary Hillier, *Automata and Mechanical Toys* (1976); Barbara Krasnoff, *Robots: Reel to Real* (1982); Phil Berger, *The State-of-the-Art Robot Catalog* (1984). For a late-nineteenth-century view of automata, see various articles in *La Nature* in 1891, 129ff, 217ff, 357ff. And finally, as a compendium and a cabinet of curiosities, Ricky Jay, *Jay's Journal of Anomalies* (New York Farrar, Straus and Giroux, 2001), based on Jay's magazine on anomalies, and his vast collection, as a professional magician.

Two of my favorite novels on the old automaton: Robertson Davies's *World of Wonders* (1975) and Allen Kurzweil's *A Case of Curiosities* (1992).

- 35 Among sources, Hillel Schwartz, *The Culture of the Copy* (Cambridge: MIT Press, 1996); Rosalind Krauss, *The Optical Unconscious* (Cambridge: MIT Press, 1994); *Pinocchio's Progeny* (Baltimore: Johns Hopkins University Press, 1995).
- 36 Even the writings of Barbara Stafford on eighteenth-century science and effects (seven volumes in all, very thorough) assume, for the most part, that special effects fall into the orbit of the Enlightenment. See also: Simon Schaffer, "Enlightenment and the Automaton," in William Clark, Jan Golinski, and Schaffer, eds., *The Sciences in Enlightened Europe* (Chicago: University of Chicago Press, 1999).  
However, I find that more often, special effects circa 1760 were Baroque *caricatures* of the Enlightenment, and not in Adorno's sense, that the Enlightenment of 1760 gave birth to the hazards of mass culture. Here too my evidence points toward a much more binary model, that Baroque special effects coexisted with Enlightenment systems of leisure and technology.
- 37 Hillel Schwartz, *The Culture of the Copy*, 199.
- 38 *Dictionnaire Encyclopedique des Amusemens de Sciences; Mathématiques et Physiques* (Paris: Chet Panckoucke, 1792). Also in title: "des procédés curieux des arts, des tours récréatifs et subtils de la magie blanche, et des dé-

couvertes ingénieuses et variées de l'industrie." Also discussed: musical acoustic theory, insects-and music, the "flirtatious" magnet, the magnetized dial, the box of enigmas (with flirtatious questions), catoptric illusions with light, conjuring the spirit world, even the Magic Lantern (but only two pages).

Jacques Lacombe probably was the editor. He edited a number of other dictionaries later in the 1790s—on gardening, on parlor games, on mathematical tricks, on equestrian technique. Also frequent mention of Benjamin Franklin.

See Barbara Maria Stafford, *Artful Science: Enlightenment, Entertainment, and the Eclipse of Visual Education* (Cambridge: MIT Press, 1994).

- 39 *Ibid.*, 431. "Les merveilles de l'électricité," "le spectacle étonnant." See also Jacquet's *Precis de l'électricité* (1775).
- 40 *Ibid.*, 462.
- 41 *Ibid.*, 357.
- 42 *Ibid.*, 444–445.
- 43 *Ibid.*, 447.
- 44 Gotthold Ephraim Lessing, *Laocoon: An Essay Upon the Limits of Painting and Poetry*, tr. E. Frothingham (New York: Farrar, Straus and Company, 1963), 204 (notes). Lessing strongly rejected the Baroque aesthetic.
- 45 Adolph Loos, *Ornament and Crime: Selected Essays*, tr. M. Mitchell (Riverside, California: Ariadne Press, 1998), 187. From a letter, August 22, 1924.
- 46 Anthony Vidler, *Warped Space*, 92–93.
- 47 Charles Robert Maturin, *Melmoth the Wanderer*. (Lincoln: University of Nebraska Press, 1961), 207 (chapter 13). From the 1820 edition.
- 48 Goethe, *Faust*, tr. C. Passage (Indianapolis: Bobbs-Merrill. Educational Publishing, 1965), 193–209. II.1: lines 5423–6000.
- 49 Mary Shelley, *Frankenstein*, chapter 11, in the creature's voice, remembering his attempt to enter the social contract. His senses and intelligence grow. The world remains strangely alien, somehow artificial, an anamorphic presence that in the end, to borrow from Lacan, refuses his gaze.
- 50 Charles Babbage, *Passages from the Life of a Philosopher* (New Brunswick Rutgers University Press / IEEE Press, 1994; orig. 1864), chapters 3 and 27.
- 51 John Summerson, "Soane: the Man and his Style," *John Soane*, Architectural Monographs (London: Academy Editions, 1990), 9.
- 52 *Trompe L'Oeil at Home*, 118. Eighteenth-century papier-mâché was made of paper, glue, flour, chalk, and sand.

- 53 Referring to Thorstein Veblen's theories of the leisure class and modern production.
- 54 Theodor W. Adorno, "Veblen's Attack on Culture," in *Prisms*, tr. S. and S. Weber (Cambridge: MIT Press, 1981; orig. 1967), 85.
- 55 *Tableaux Tentures de Dufour et Leroy*. Sales catalogue in special collections at the Getty Research Institute.
- 56 In total, the panels measured 10.8 meters wide and one meter high (32 feet wide) for a room or a stairwell. John McPhee, "Wallpaper Takes Us to Another World," smh.com.au.
- 57 *Les Sauvages de la Mer Pacifique, manufactured by Joseph Dufour et Cie, 1804–5, after a design by Jean-Gabriel Charvet*, essay, Vivian Webb (Art Gallery of New South Wales, circa 1998), 13 (footnote 18).
- 58 A.H. Saxon, *The Life and Art of Andrew Ducrow, and the Romantic Age of the English Circus* (London: Archon Books, 1978), 22–23
- 59 Lev Manovich, *The Language of New Media* (Cambridge: MIT Press, 2001), 146.
- 60 On the declining civic role of Baroque special effects: factor in also the impact of Methodism, of evangelical (anti-illusionist) movements during the eighteenth century, along with the fierce anticlericalism (chasing out the Jesuits from many places of power in Europe—after 1760).
- 61 Heinrich von Kleist, "On the Marionette Theater," tr. L Parry and P. Keegan. Preface by Idris Parry, *Essays on Dolls* (London: Penguin, n.d.). Kleist's famous essay from '1810 is often discussed, more recently in Daniel Tiffany's *The Toy Medium*, in Harold Siegel's *Pinocchio's Progeny*. It very likely influenced Hoffmann when he wrote *The Sandman*. One might also see Kleist's essay as an answer to Goethe's lifelong fascination with puppets—the puppets in *Wilhelm Meister's Apprenticeship*, or as a symbol of the Faustian power over another body (derived in part from Faust puppet plays that Goethe saw as a small boy).
- We always return as well to the distinction between the puppet (the emblem of power between the puppeteer and the puppet's body) and the doll, the strangely sexualized emissary between dead and living bodies, the emblem of childhood sexuality. Or the doll as a blind force of evil, when Quint in *Jaws* compares the eyes of the shark to "doll's eyes," dead and relentless, as efficient as a machine.

## After 1780: The Baroque Imaginary into Science Fiction

- 1 Frank Manuel, *The Prophets of Paris* (New York Harper and Row, 1962) 216. Probably from Charles Francois Fourier, *Le Nouveau Monde Industriel et Sociétaire* (1829). Manuel, a hearty and enthusiastic man, first introduced me to this strangely ignored era. He had written this groundbreaking survey entitled *The Prophets of Paris* (1962) after his biography of Saint-Simon. I have always felt that Manuel, having lost a leg fighting with the Lincoln Brigade in the Spanish Civil War, in another “forgotten” historical episode, certainly as of 1962 (the heart of the Cold War), sensed a kinship with these quixotic utopians.
- 2 A few classics of steampunk, though often Poe, Verne, Wells, even Lovecraft are linked as well, and certainly Shelley’s *Frankenstein*, “the grandmother of all steampunk”: William Gibson and Bruce Sterling, *The Difference Engine* (New York: Dell, 1991); Neal Stephenson, *The Diamond Age* (New York Bantam Books, 1995) and *Quicksilver* (2003). Among dozens of steampunk authors: Paul di Pilippo, *The Steampunk Trilogy*, or Jeff Noon, *Automated Alice* (2000). And steampunk comics and graphic novels, most notably Stempura, and above all Alan Moore and Kevin O’Neill’s graphic novel series, *The League of Extraordinary Gentlemen*. Also computer *games*: *Steam Punk*, 1920; *Castle Falkenstein*; *Gurps: Steampunk*; *Mechanical Dream RPG*. And multiple-user MUDs and BLOGs for steampunk, as well as a portal site, *steampunk.com*. was widely in use in 2003. A later anthology: Rachel Bowser, *Like Clockwork, Steampunk Past, Present, and Futures* (Minneapolis: Univ. of Minnesota Press, 2016). No doubt, the pop Baroque fantasies linked to the early twentieth century have mostly passed, as of 2022. As it turned out, the politics of the Gilded Age have replaced them. In a new Gilded Age, American constitutional crisis went beyond art direction, into a decade or more of catastrophic backward spirals and constitutional unrest.
- 3 Horace Walpole, *The Castle of Otranto* (1764), preface to first edition.
- 4 Stephen Oettermann, *The Panorama: History of a Mass Medium*, tr. D. Schneider (New York: Zone Books, 1997; orig. 1980), 23.  
By about 1800 ... a distinct break with tradition occurred that caused old craft skills to be forgotten. As a result, the first panorama painters had to begin again at the beginning, at least as far as the technical demands of correct PERSPECTIVE were concerned (particularly for rounded backdrops) ... The panorama arose as a critical reaction to the Baroque theater.

It was the middle-class response to forms of feudal art that had grown obsolete.

- 5 Philipe Jacques (James) de Louthembourg (1740–1812), the French painter turned theatrical designer who generated early moving panoramas, pre-cinematic installations in 1780's London.
- 6 See Richard D. Altick, *The Shows of London* (Cambridge, Mass.: Harvard University Press, 1978). A groundbreaking study. Also from Altick (among his many writings on Victorian culture), "An Uncommon Curiosity: In Search of the Shows of London," in Altick, *Writers, Readers and Occasions: Selected Essays on Victorian Literature and Life* (Columbus: Ohio State University Press, 1989).
- 7 Victor Hugo and Charles Nodier were suitably appalled by the coronation of Charles X, at Rheims (1825), which helped shift their politics radically to the left (by 1827). Charles changed costume six or seven times, made a particularly ludicrous impression in "a cherry-colored simar sallied with gold." The peers of France stood by, "embroidered with gold, beplumed in the Henri IV style, and wearing long mantles of velvet and ermine." Their lessers, the "Deputies on the left," were required to wear something more modest: blue cloth dress Coats, with fleur-de-lis on the collar, as if this were the humbled Third Estate as of 1604. Like a *quadratura* with animals, hundreds of birds were then let loose, and rose toward the ceiling. Luckily, they flew fast enough to avoid the "thick, luminous" incense choking in the nave of the cathedral. A "vast" coronation carpet "covered the old flagstones from one end of the cathedral to the other and concealed the tombstones in the pavement." (Victor Hugo, *Memoirs*, <https://www.gavruche.org>.) How often the reenactment of political pageants accidentally become illusionistic effects—by their very disengagement from the facts of the moment. Less than five years later, Charles was dethroned by a revolution.

Also for the coronation, Rossini was hired to write an opera, *Viaggio a Rheims*, a comic gala about complications on the way to Rheims. It was so lavish, requiring ten greatest singers of the day, that it was never produced again in Rossini's lifetime. Coronations are like shotgun marriages, a once-only pageant to honor authoritarianism.

See also Richard A. Jackson, *Vive le roi! A History of the French Coronation from Charles V to Charles X* (Chapel Hill: University of North Carolina Press, 1984).

- 8 According to Dave Smith, the encyclopedic historian in charge of the Disney Archives, Ludwig's Neuschwangen Castle in Bavaria was only "partially" a source for the Disneyland Castle. Cited by Van Arsdale France (Founder and Professor Emeritus of the University of Disneyland), *Window on Main Street: 35 Years of Creating Happiness at Disneyland Park* (Nashua, New Hampshire: Laughter Publications, Inc., 1991), 16.
- 9 "Gurney's The Steam Carriage: Can It Be Made Safe?" *The Courier*, June 21, 1829.
- 10 *The Horses Going to the Dog*, an engraving by George Cruickshank, the son of illustrator Isaac Cruickshank, began his career inside the caricature industry, replacing Gillray in 1814. Something of an anti-industrial parodist, as early as 1818 Cruickshank was already making fun of industrial machinery. While his fame seems to rest as the illustrator of Dickens's *Oliver Twist*, he was better known after 1837 in Victorian England as a leader of the Temperance movement.
- 11 Dale H. Porter, *The Life and Times of Sir Goldsworthy Gurney* (Bethlehem: Lehigh University Press, 1998), a solid review of the evidence. Also, many technological appreciations, e.g., Thomas Roberts Harris, *Sir Goldsworthy Gurney, 1793–1875* (Trevithick Society, 1975).
- 12 By 1860, mechanical engineering was professionalized.
- 13 The points of origin for steam-driven vehicles include Cugnot in France, 1769, followed by Murdoch in England, 1784, who then inspired Richard Trevathick (1801–1803), who in turn inspired Gurney.
- 14 A partial list of those who succeeded and failed in the English steam-carriage trade, besides Trevathick: Walter Hancock, Ogle and Summers, John Scott Russell, H. H. Church. Much is made of this eccentric period, over by 1840, as the failed precursor of the automobile, rather like Babbage's Difference Engine.
- 15 Robert Henry Thurston, *A History of the Growth of the Steam-Engine* (New York: Appleton and Company, 1878), 161–163. Burstall and Hall were partners).
- 16 *Ibid.*, 164.
- 17 Dale H. Porter, *The Life and Times of Sir Goldsworthy Gurney*, 71
- 18 The mystery of what became of Gurney's "Drag," as the model was called: one blew up in Glasgow (about 1830); a second may be in the Museum of Transport in the Kelvin Halls, Glasgow, painted red, apparently less ornate than the 1829 prototype.
- 19 Thurston, *A History of the Growth of the Steam Engine*, 171–172.

- 20 Selected bibliography of early histories of the steam engine: G.N. Von Tunzelmann, *Steam Power and British Industrialization to 1860* (New York: Clarendon Press, 1978); Allen H. Fenichel, *Quantitative Analysis of the Growth and Diffusion of Steam Power and Manufacturing in the United States, 1838–1919* (New York: Arno Press, 1979); John Pudney, *The Golden Age of Steam* (London: H. Hamilton, 1967). Also, revealing older texts: John Lord, *Capital and Steam-Power, 1750–1800* (1923); Robert Henry Thurston, *A History of the Growth of the Steam-Engine* (1878); M. Hachette, *Histoire des machines a vapeur* (1830); Robert Stuart, *A Descriptive History of the Steam Engine* (1825).
- 21 Details on the heating/ventilation project: *Catalogue of the Papers of Henry Pelham Clinton, 1811–1864* (Newcastle Family Collections; The University of Nottingham). Gurney's system lasted into the 1880s. He was knighted probably as a way to force him to retire, but also since he was suffering after a stroke. He was knighted as a kind of golden handshake, a rather cynical decision, rather than a great honor. In the end, he was not granted much of a pension anyway, and lost much of his personal fortune during a decade of illness.
- 22 Gurney was still involved in the Enlightenment debate on phlogiston, on oxygen and matter. He was convinced that nitrogen was partly oxygen, and wanted to prove it. On the way, he developed these useful systems for light, mining, heating, etc.
- 23 A monument to Bude Light was added lately to the town square of Bude, in Cornwall, near Gurney's house.
- 24 George A. Krauss, "Projection Department," *The Moving Picture World*, July 5, 1913 (<https://www.silentrnovies.com>), limelight. Magic lantern and early film publications often featured ads for limelight companies and illustrations of many kinds of compressed gas cylinders and controls. Mr. Krauss favored the Enterprise Optical Company's Model B Calcium Gas Machine. Many locales where movies arrived did not have reliable electricity by 1913.
- 25 Eric Hobsbawm and Georges Rudé, *Captain Swing* (New York: Norton, 1975; orig. 1969), 156.
- 26 Balzac quoted in Emile Pouget's classic political essay *Sabotage*, tr. A. Giovanniti (Chicago: Charles Kerr and Company, era 1900), 39–40.
- 27 For background on the history of steam power in the nineteenth century: Louis C. Hunter, *A History of Industrial Power in the United States, 1780–1930*, Volume 2 (1985); G.N. von Tunzelmann, *Steam Power and British. Industrialization to 1860* (1978); Richard L. Hills, *Power from Steam A History of the*

- Stationary Steam Engine* (1989). Also, classic studies: J. E. Bourne's *A Catechism of the Steam Engine* (1847), and *A Treatise on the Steam Engine* (1850); D. K. Clark, *The History of the Steam Engine and Its Mechanism* (1857).
- 28 Charles Babbage, *On the Economy of Machinery and Manufactures*, 1832, 1935, fourth edition enlarged, reprinted (New York Augustus Kelley, 1971), 121.
- 29 In 1803, with threats of a French fleet invading England, a carefully designed program is set up by Parliament, to turn “Boney” (*parte*) into the Bogeyman. For years, parents would threaten their children to beware of Boney, especially in their sleep at night. The illustrations by Gillray and others in 1803 fed this jingoist frenzy, reflected decades later in Carlyle's *The French Revolution*, and in popular fiction, i.e., Dickens: “It was the best of times ... the worst of times.” Of course, by 1803 the disappointment with Napoleon had set in across continental Europe as well, fueling Romantic work, even affecting Beethoven's title for his third symphony (*Eroica*). But a larger issue is suggested by the 1803 crusade. It is a lesson in media distraction (totalitarian fantasies, red-baiting, and racist imaginaries). Often, a collective memory comes out of a political campaign, and yet seems to exist afterward without a point of origin, simply as *aporia*—ideal for special-effects settings: a frightening myth that exists outside of time itself, a syllogistic place where great illusions come alive. Boney scares, like scares about aliens (early Cold War fears converted into collective memory), often trace back to ideological campaigns. Collective memory often fades into free-floating paranoia, great fodder for special effects.
- 30 *Dead Media*, Internet site established by Bruce Sterling, very much in the spirit of steampunk and alternate worlds.
- 31 Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1996; orig. 1962), chapter VI.
- 32 See *The Freud-Lissitzky Navigator*, a website data “novel” that I co-authored with Lev Manovich (1999), also exhibited in over a dozen shows around the world. I had been obsessed with Freud and Coney Island since 1995, had various notes, which I will evolve further in Volume II. (See Chapter 4, Endnote 21).

## Aloft: Jules Verne; Felix Nadar; Edgar Allan Poe

- 1 They imagined a future of safe flying machines. The sky would be filled with spiro-copters (*hélices*). List of some of the members; began in 1862.

- 2 Nadar's famous studio was located along the Boulevard des Capucines. Decades after his death, Pissarro apparently—painted from its window—an overhead (panoramic view) of the street (1889).
- 3 Hélice was understood as propulsion generated by a spiral around a cylinder, essentially a propeller (like those used on the water). Thus, the steamship functioned as the model for air flight. See Verne's later novel *L'Isle à l'hélice* (1896), translated as *Propeller Island*.
- 4 Legend has it that one of this society's members, Guillaume de la Landelle, invented the term *aviation*.
- 5 In the archives at the Bibliothèque Nationale in Paris, along with portfolios at the Bureau des Estampes on the visual history of the balloon.
- 6 A paradox: *Amateur* is meant here in both its eighteenth- and its nineteenth-century meanings. First, circa 1780, as the gentleman connoisseur, scientist, art critic, beyond the marketplace; then as the feckless and yet canny nonprofessional, circa 1860.
- 7 Ardan appears in *Front the Earth to the Moon*, and its sequel, *Round the Moon*.
- 8 First issue of *L'Aéronaute*, from translation in *Le Géant*, by Norman Klein, *Sulfur*, number 5, 1982.
- 9 Jules Verne, *The Mysterious Island* (New York: Signet, 1986), chapter 16, p. 425.
- 10 "The Philosophy of Composition," 504
- 11 See also Daniel Hoffman's discussion of Poe's fascination with hoaxes and the Baroque imaginary: *Poe Poe Poe Poe Poe Poe Poe Poe* (New York: Random House, 1972), chapter V (Voyages). (And See Chapter 4, Endnote 21).
- 12 "The Unparalleled Adventure of One Hans Pfaall" first appeared in late June 1835, in the *Southern Literary Messenger*.
- 13 Today, Rotterdam is the industrial hub of the Netherlands, rebuilt in sixties modernism, alongside remnants of what survived the bombing. In 2000, I helped young artists *design* an imaginary Holland there, at the arts center, Witte de With. Two rooms were installed as imaginary landfill, with isolated traffic noises, urban word puzzles, and maps of buildings that looked mismatched, due to the war. It was an indoor special effect for a country built on simulation. For centuries, earthworks keep simulating new land below sea level, sim-Holland behind massive dikes.
- 14 Fakery revealed at end of "Pfaall": The dwarf did not come from the moon; he lived in Bruges. The lunar paper was milled in Holland. And finally, Hans was seen boozing with his creditors not three days ago.

- 15 A basic list of Poe's science canards and science adventures: "The Unparalleled Adventure of One Hans Pfaall," "The Balloon Hoax," "Mesmeric Revelation," "Von Kempelen and His Discovery;" "The Facts in the Case of M. Valdemar," "The Thousand-and-Second Tale of Scheherazade," "Maelzel's Chess Player," "Some Words with a Mummy," *Narrative of A. Gordon Pym*, "The System of Dr. Tan and Professor Fether," "Three Sundays in a Week," "The Man That Was Used Up," and various shorter articles on techno/anomaly more than science: "The Swiss Bell-Ringers," "Pennington's Steam Balloon" (*The Evening Mirror*, New York, Feb. 12, 1845), "The Cincinnati Telescope" and "Lunar Atmosphere" (both *The Evening Mirror*, January 10, 1845), "The Head of John the Baptist" (*New York Mirror*, June 17, 1843, 169–171), "The Automation of Herr Faber" (*Broadway Journal*, Jan. 3, 1846), "Try a Mineralized Pavement" (*Evening Mirror*, New York, Feb. 8, 1845, 106). (Again, See Chapter 4, Endnote 21)

Then there are tales by Poe that specifically influence science fiction writers in the nineteenth century (beyond his "arabesques," and horror stories), like "Descent into the Maelstrom," or even "Ms. Found in a Bottle." And finally, many of his poems are strong influences as well, but tend to be cited less often than the short stories—again, we are simply within that narrow orbit of science fiction, not his place as an emblematic summation of the Baroque imaginary.

What does this list tell us? Poe apparently was most involved in writing science/techno fantasy between 1835 and 1837, and again between 1844 and 1845. Many of these are comic, almost lampoons, and self-conscious, ironic journeys into American fantasies about European Baroque science, comparing that to hardheaded American materialism. It was also Poe's way of entering the vogue for seafaring adventure tales.

- 16 Among the technologies possibly suggested in "The Thousand-and-Second Tale of Scheherazade": the Electrotpe; Wollaston's platinum micro-wire; Newtonian optics; ultraviolet rays; Babbage's Difference Engine; the Daguerrotype; the steamboat; early experiments in freezing (<https://www.eserver.org/booksipoe>).
- 17 Edgar A. Poe, "The Swiss Bell-Ringers," 2.
- 18 Mark Twain, *A Tramp Abroad* (1880), chapter XXVI.

## Oz

- 1 *Fairyland* has a very specific meaning at the turn of the twentieth century, as in Andrew Lang's compilations of fairy tales (even Freud's analyses of these): faerie-stapes; also the land inhabited by children's innocent fantasies. Baum plays with faerie-scapes in dozens of books besides the Oz series. He also makes a point of having Oz characters call their world a fairyland, to suggest a place with metaphysical kingdoms, but run by early modern princes and queens, and interfered with by more primitive magical powers, similar to Arthurian (Celtic) witchcraft dropping from the sky or emerging from the earth. Thus, the industrial characters (i.e., the Wizard) are outsiders, like Dorothy, and cannot possess faerie powers.
- 2 Auguste Villiers de Lisle-Adam, *Tomorrow's Eve (L'Ève Future)*, tr. R. Adams (Urbana: University of Illinois, 2001; orig. 1886), pp. 7–12.
- 3 The emerald spectacles in Baum's version did not make it to the MGM version.
- 4 We find out later, in *The Road to Oz* (1909), how the Emerald really looks as seen by Shaggy Man): "The graceful and handsome buildings were covered with plates of gold and set with emeralds so splendid"; also marble slabs as smooth as glass (these are mentioned in *The Wonderful Wizard of Oz*). However, it appears that Baum added more green (and no more spectacles) to the city as the series went on. Also, he gives Emerald City something of the utopian spirit of Bellamy's *Looking Backward* and other Progressive-era political allegories, when he mentions (*The Road to Oz*) that no one has to work more than half his time in Emerald City.
- 5 L. Frank Baum, *The Wonderful Wizard of Oz* (1900), chapter 18.
- 6 L. Frank Baum, *Tik-Tok of Oz* (1914), chapter 2.
- 7 *Ibid*, chapter 9.
- 8 Ambrose Bierce's short story "Moon's Monster," along with Poe's writings on automata, would very likely have been known to Baum. Baum's obsessions with friendly, not scary faeries would have removed all the horns from these monsters, though, and left us the loyal, syllable-at-a-time levelheaded Tik-Tok.
- 9 In gleaming copper, Tik-Tok's good manners and loyalty suggest Lucas's C-3PO, another blend of Baroque house servant—or at least Victorian butler—as industrial automation, as digitally enhanced robot.
- 10 Baum, *Tik-Tok of Oz*, chapter 7.
- 11 *Ibid.*, chapter 6.

- 12 *Ibid.*, chapter 9.
- 13 Karal-Ann Marling, “Imagineering the Disney Theme Parks,” in *Designing Disney’s Theme Parks: The Architecture of Reassurance* (Paris: Flammarion, 1997), 79. Disney also tried to buy the Oz books after the MGM film in 1939, tried at various times to produce Oz films. In 1985, *Return to Oz* appeared, a mordant, psychological version of the tale, in an era when many classic children’s tales were being retold darkly, from *Batman* to *Dream Child*, a darker journey into *Alice in Wonderland*, and Svankmeier’s *Alice*, etc
- 14 *Candy-box color* was a common term in the thirties for three-strip technicolor. Cinematographers often resented it. And producers often demanded as much red and primary color as possible, to put their money on the screen. The stories of Selznick firing cameramen who were not putting enough saturated color into the color were legion for *Gone With the Wind*.
- 15 Margaret Cheney and Robert Uhe, *Musk Master of Lighting* (Metro Books, 1999), 29. “The City of Light” clearly influences Winsor McCay as well, his Slumberland Palace, probably various Little Nemo designs.
- 16 Photo inside the site “Robots of the Victorian Period, <https://www.bigredhair.com/time-tunnel/interface/big-red-hair-1998/>. Undoubtedly, these photos of Boilerplate were composited. This site reviews the history of various Steam Men in the U.S. from 1865 onward. It has the slippery irony of a Poe literary effect, the fine line between hoax, fact, and fiction. Images indicate an influence on Soviet robot design, and an American Boilerplate film in 1918. I have found various science fiction covers from the early thirties that resemble Boilerplate as well. The site has bibliography and links; more also at the Chicago Historical Society.
- 17 Paul Guinan set up the “Robots of the Victorian Period” site, including “Re-producing Boilerplate,” an adroit hoax.

## Panoramas: A Crow’s Nest Over London; Walking Through Gettysburg

- 1 There were five kinds of panorama: moving, photographic, movable book, filmic, and spatial. Almost none of the spatial kind have survived; thus, the hundreds of old flyers about them are precious. Useful studies on spatial panoramas: Ralph Hyde, *Panoromania! The Art and Entertainment of*

- the All-Embracing View* (1988); Stephen Oetermann, *The Panorama: History of a Mass Medium* (1997; orig. 1980); Bernard Comment, *The Panorama* (tr. XIXe siècle de panoramas) (two editions, 1999, 2000; orig. 1993); Richard Altick, *The Shows of London: A Panoramic History of Exhibitions, 1600–1862* (1978); Jonathan Crary, *Suspensions of perception; Attention, Spectacle and Modern Culture* (1999); John Frances McDermott, *The Lost Panoramas of the Mississippi* (1958); Roberto L. Mayer, *Publicianos Mexicanos: plans y panoramas, siglos XVI at XIX* (Mexico D.C., 1998); Yvonne von Eekelen, *The Magical Panorama; The Mesdig Panorama, an Experience in Space and Time* (1996); Leonard de Vries, ed., *Panorama, 1842–1865: The World of the Early Victorians as Seen through the Eyes of the Illustrated London News* (1967).
- 2 Ralph Hyde, *Panoramanial The Art and Entertainment of the “All-Embracing View”* (London: Trefoil in association with Barbicon Art Gallery, 1988).
  - 3 *The Mirror* Feb. 14, 1829, 34. By 1829, cues for popular ideologies about industrialization were beginning to emerge, i.e. (p. 67): “science and society... on a par, and philosophical theory will hence enlighten the tradesman.” And “Brobdingnag machinery” promises of steam-driven writing machines, based on a spinning jenny. Also, pop-science hoaxes (or early planetology): giant bones exhibited in New Orleans (p. 73).
  - 4 *Ibid.*, 34–35. And *The Mirror*, April 28, 1832. Also, *London Illustrated News*, April 26 and May 3, 1845, on reopening of the Colosseum; or April 3, 1875, 320: on its demolition. Early, thorough catalogue sold at the Colosseum, *A Brief Account of the Colosseum* (1827).
  - 5 In 1829, St. Paul’s was closed for repairs, enhancing the wonder of seeing London from St. Paul’s by way of the Colosseum—in an “all-embracing” view, where (as the catalogue declares), “the sky is fine and bright, the atmosphere is clear ... we can command constant sunshine.”
  - 6 In the catalogue (p. 7): Mr. Hornor’s “necromantic, or talismatic power” of creation. Various features: ravines “sunk deep”; “subterraneous caves” (*London Illustrated News*, 1845); “snow-clad peak of Mont Blanc” from the Swiss Chalet; Glyptotetica (museum of sculpture); seats of fine Utrecht velvet. Two modes of ascent (spiral staircase; Ascending Room); (*The Mirror*, 1829) 40,000 square feet or nearly an acre of canvas; done thirty feet larger than St. Paul’s; a clear view of 130 miles (more like twenty-mile view); Size and Shape: sixteen-sided polygon, 130 feet in diameter.
  - 7 *The Morning Chronicle*, March 9, 1829, as cited in *Panoromania*, 82. Since practically no panoramas have survived, much of the research in the field involves flyers, ephemera of all sorts, and newspaper accounts.

- 8 *London illustrated News*, May 3, 1845, 27.
- 9 *Ibid.*
- 10 *The Mirror*, April 28, 1832.
- 11 *Ibid.*
- 12 *The Scotsman* (Edinburgh), Jan. 21, 1829.
- 13 *Ibid.*
- 14 William Beckford, *Vathek: An Arabian Tale* (1786), a Gothic orientalist romance. The subterranean halls of Eblis were a favorite passage in the book.
- 15 *A Brief Account of the Colosseum in the Regent's Park, Printed for the Proprietors and Sold at the Exhibition* (London: 1827).
- 16 *Ibid.*, 3.
- 17 Joseph Earl Arlington, *Leon Pomerade's Panorama of the Mississippi River* (*Missouri Historical Society Bulletin*, reprint, April 1953). Over 500 feet long. *New York Herald*, September 7, 1850: "mimic steamboats ... blowing off steaming real high pressure style ... mechanical moving figures, steam from a heated furnace" (264).
- 18 Hardy Gillardis *Great American Panorama*, "the whole at a glance," was a long painting (40 feet by 8 feet), with fifteen-minute lecture.
- 19 Gerard de Nerval, "Diorama," in *Selected Writings*, tr. R. Sieburth (London: Penguin Books, 1999), 187–190.
- 20 Joseph Earl Arrington, *Leon Pomerade's Panorama*, 263–265.
- 21 *Ibid.*, 266–267.
- 22 *Ibid.*, 273.

## The Virgin and the Dynamo: World's Fairs, 1851-1964

- 1 Henry Adams, *The Education of Henry Adams* (New York: Random House, 1946; orig. 1918), 380.
- 2 *Ibid.*, 384.
- 3 Rosalind Williams, *Dream Worlds: Mass Consumption in Late Nineteenth Century France* (Berkeley: University of California Press, 1982), 60.
- 4 *Fantassistes*: nineteenth-century French term for illustrators who specialized in imagining the fanciful.
- 5 Hugh Ferriss, *Metropolis of Tomorrow* (Princeton: Princeton University Press, 1998; orig. 1929).
- 6 The World's Columbian Exposition of 1893: the 400th anniversary of Columbus landing in the New World. See Robert Muccigrosso, *Cele-*

- brating the New World: Chicago's Columbian Exposition of 1893* (Ivan R. Dee, 1993); Norm Bolotin, Christine Laing, *The World's Columbian Exposition: The Chicago. World's Fair of 1893* (Champaign: University of Illinois Press, reprint, 2002).
- 7 In 1905, at the opening of Venice, California, the developer Abbot Kinney hired gondoliers from Venice, and put sombreros on their heads. Venice also had lagoons, like the Columbian Exposition of 1893 (Chicago).
  - 8 David Robinson, *From Peepshow to Palace: The Birth of American Film* (New York Columbia University Press, 1996), 23–40. A biblical liturgical tale by now, retold in hundreds of sources, both primary and secondary.
  - 9 *Ibid.*, 47.
  - 10 See Donald Albrecht, *Designing Dreams: Modern Architecture in the Movies* (New York Harper and Row, 1986). The second volume of *Designing Dreams* appeared in 2001 (Santa Monica: Hennessey and Ingalls, paper).
  - 11 For example, David Gelernter, 1939: *The Lost World of the Fair* (New York: The Free Press, 1995), 25. See also Erik Mattie, *World's Fairs* (New Haven: Princeton University Press, 1998); Robert W. Rydell, *World of Fairs: The Century-of-Progress Expositions* (Chicago: University of Chicago Press, 1993); Rydell, *All the World's a Fair: Visions of Empire at American International Expositions* (1987), Rydell et al., the anthology *Fair America: World's Fairs in the United States* (2000); Alfred Heller, *World's Fairs and the End of Progress: An Insider's View* (Marin County: World's Fair, Inc., 1999), covers fifteen world's fairs since 1939. Heller founded the quarterly magazine *World's Fair* in 1981. For overview: Sharon Zuker, *Landscapes of Power: From Detroit to Disney World* (Berkeley: University of California Press, 1991).
  - 12 In Los Angeles, a full-scale model of the city was in storage at the Museum of Natural History (1937). A 1941 model, with some freeways imagined, may have disappeared. By the end of World War II, many freeway systems were already in the planning stages.
  - 13 Bel-Geddes had wanted to call this “peepshow of tomorrow” Sexorama. Robert W Rydell, *World of Fairs: The Century-of-Progress Expositions*, 137–144. There was a lot of aestheticized female nudity at the fair, as well as unabashed corny strippers: Dalí's *Dream of Venus*; bare-breasted “Magazine Covers”; rumors of nude dancers at the Cuban Village; the “frozen alive girl”; girls in only a G-string at the Ice Show; ballyhoo at the Midway Strip Show The odd coupling of techno special effects with the woman's body was strange indeed, very “revealing”.
  - 14 David Gelernter, 1939: *The Lost World of the Fair*, 22.

- 15 A more ominous reading of the souvenir button *I have seen the Future* appears in the splendid documentary *The World of Tomorrow* (1984, Lance Bird).
- 16 David Gelernter, 1939: *The Lost World of the Fair*, 18.
- 17 Steven Watts, *The Magic Kingdom: Walt Disney and the American Way of Life* (Columbia: University of Missouri Press, 1997), 417.
- 18 *Walt Disney World* (Orlando: The Walt Disney Company, 1986), 74.
- 19 Mitt.
- 20 *Ibid.*, 81.
- 21 Miles Beller, “A Higher Calling? Businessman. and Police Commission President, Rick Caruso Has a vision for Los Angeles,” *Los Angeles Times Magazine*, May 4, 2003, 44.
- 22 *Ibid.*
- 23 Gary Baum, “L.A.’s Walt Disney of Shopping: Rick Caruso on Expansion Plans, Whose Advice He Seeks in Hollywood,” *Hollywood Reporter*, May 21, 2015.
- 24 Architects for the Grove: Ellis Manfredi Architects of Boston, and Langdon Wilson of Orange County.
- 25 Morris Newman, “Ambitious Retail Center Has One Fatal Flaw,” *Wall Street Real Estate Journal West*, 2002.
- 26 *Ibid.*
- 27 *Ibid.*
- 28 Ray Bradbury, radio interview, 1993. Bradbury wrote for Disney’s EPCOT, and was a friend of the family.

## Movie F/X: Making Heads Roll

- 1 Perhaps the most cited “first” cinematic special effect—Méliès’s in English, from Frank Clark, *Special Effects in Motion Pictures* (Scarsdale: Society of Motion Pictures and Television Engineers, 1963), 1, to Richard Rickitt, *Special Effects: The History and Technique* (New York Billboard Books, 2000), 12. Also Jane O’Connor and Katy Hall, *Magic in the Movies* (Garden City: Doubleday and Company, 1980), 1; the opening chapter of Arthur Knight’s widely read *The Liveliest Art* (1979).
- 2 George E. Turner, “The Evolution of Special Visual Effects,” *The ASC Treasury of Visual Effects*, supervised by Linwood G. Dunn (Hollywood: Ameri-

- can Society of Cinematographers, 1983), 16–17. An exceptional collection of essays by old practitioners.
- 3 *Ibid.*, 16.
  - 4 Equally famous anecdote: Méliès's first substitution shot. His 1907 journal entry on how he managed the trick has bounced through literally hundreds of sources since.
  - 5 George E. Turner, "The Evolution of Special Visual Effects," 17.
  - 6 Tom Gunning, "An Aesthetic of Astonishment: Early Film and the (In)credulous Spectator," *Art and Text*, Spring 1989, 36, 38.
  - 7 Ben Singer, "Modernity: Hyperstimulus, and the Rise of Popular Sensationalism," in *Cinema and the Invention of Modern Life*, ed. Leo Charney and Vanessa Schwartz (Berkeley: University of California Press, 1995).
  - 8 Robert Paul shifted from "animated photographs," the Lumière model of early film, to trick films by 1901, many with ogres, gnomes in jars, magical medieval adventures.
  - 9 Video telephones were prophesied in the illustrations of Du Maurier in England (1878), and Albert Robida in France (1883), among many others. Within only a few years after the telephone was invented, its visual component was imagined.
  - 10 Méliès's sea creatures clearly resemble the seventeenth-century imaginary sea monster (rubbery lips, fins like wings—in sculpture, theater, and maps). Gustave Doré's illustrations of sea monsters look much the same.
  - 11 I am using the six composite methods cited in Raymond Fielding's extremely famous textbook, a bible in the f/x industry during the age before computer effects took over, *The Technique of Special Effects Cinematography* (New York Communication Arts Books, 1974; orig. 1965), chapters 3, 4, 5, 6, 7, 8, 10. Beside Rickitts' *Special Effects*, the bounty of how-to books on special effects runs into the hundreds, including "the making-of" books (for example, Don Shay and Jody Duncan's *The Making of Jurassic Park* is useful); Mark Vaz's history of Industrial Light and Magic; and magazines like (but not as thorough) as *Cinefex*. Among the more recent and useful: (interviews by Pauline B. Rogers, *The Art of Special Effects* (Boston: Focal Press, 1999), an extension perhaps of John (Seamus) Culhane's *Special Effects in the Movies: How They Do It* (New York Ballantine, 1981), a useful summary of where the industry was just at the cusp of the vast changes of the eighties. Among picture books on f/x right before the vast shift: Harold Schecter and David Everitt, *Film Tricks* (New York Delacorte, 1980). And industry-crafts picture books: Anthony Timpone, *Men, Makeup and*

*Monsters: Hollywood's Masters of Illusion and FX* (New York: Saint Martin's, 1996).

Many studies apply film, phenomenology, and psychoanalytical theory to special effects, notably Michelle Pierson, *Special Effects, Still in Search of Wonder* (New York: Columbia University Press, 2002), applying early work on the cinema of attractions to recent special effects. Also, Winston Wheeler Dixon, *The Transparency of the Spectacle: Meditation on the Moving Image* (Albany: State University of New York, 1998). Geoff King, *Spectacular Narratives: Hollywood in the Age of the Blockbuster* (London: I.B. Tauris, 2000), particularly interesting in dealing with the fireball, and other effects that get so powerfully recorded after 9/11 (both primary and secondary sources). The writings of Scott Bukatman, Vivian Sobchack, and Constance Penley. Numerous studies on the action genre and the horror genre. Or social history that also includes special effects: James Forsher, *The Community of Cinema: How Cinema, and Spectacle Transformed the American Downtown* (2003); Stuart C. Aitkin and Leo E. Zonn, eds., *Place, Power, Situation and Spectacle: A Geography of Film* (1993).

- 12 Glass shots were apparently invented around 1919 by the American painter and poet Ferdinand P. Earle, originally meant as a painterly affect more than a special effect. Edward Carrick, *Designing for Motion Pictures* (New York: Studio Publications, 1941), 97.
- 13 The documentarist and feature filmmaker Norman Dawn may have pioneered the in-camera matte shot by 1911, but it was already known and used earlier. In 1905, he learned the technique while working in Los Angeles for Max Hansheigel, at the Thorpe Engraving Company. Then Dawn adapted the principle first in the film *California Missions* (1907), where he corrected the mission facades that were crumbling. Then he slipped a Mayan temple behind a scene of women dancing, inspired apparently by a postcard. Later he worked in Australia, where he filmed the Great Barrier Reef inside a watertight box weighted with sandbags with matte shots of the underwater behind it. He also added extra pigeons where the scene required it, and restored the ruins of an abandoned prison in Port Arthur as well as shipwrecks, mine disasters, storms, floods. He directed films with mattes added for the Arctic, South America, the South Pacific, and Asia; and devised special effects for Universal, Pathé, and MGM—over 861 effects shots over a period of sixty-three years. George Turner, *The Evolution of Special Visual Effects*, 26–27. Richard Rickitt, *Special*

- Effects: The History and Technique*, 189–191. Dawn's personal papers are at the University of Texas, Austin.
- 14 The standardized model for the optical printer was developed by Linwood Dunn, used early on for *King Kong*.
  - 15 Flame: a high-end visual-effects software owned by Discreet Logic. Combines tracking with compositing features for as seamless an illusion as possible, in image processing for film, TV, commercials, etc., but only as of 2003. Even more seamless compositing is clearly on the way. But consider what this suggests as an ontology: layers will become all but indistinguishable from a flat surface. The paradox of depth will now be a trick, perspective awry. This trick will be inserted like a virus into our over-sanitized rooms, simply to induce the production of antibodies (while most of the world, even most American cities, lose much of their medical infrastructure). But in a world like Flame, the outside finally owns the inside—politically and commercially. We must get used to the end of difference, not Derrida's "*différance*," but rather difference when we hurt: lose jobs, sex, money, the freedom to act. Difference as illusion becomes an additive, like the smells added to stove gas, or an artificial color in a clear liquid. Difference is merchandized commercially. Meanwhile, social and economic difference widens.
  - 16 In 1918, American Frank Williams patented the first practical traveling matte process, called a black backing traveling matte technique. The Williams Process was popular among studios in the twenties, for Valentino and Swanson films, especially in 1925, when it was used in *The Lost World* (1925) and *Ben Hur*. Richard Rickitt, *Special Effects: The History and Technique*, 45–47.
  - 17 The Shuftann Technique: developed in 1923 by Eugen Schuftann (1893–1977). Featured first in *Metropolis* but also in Hitchcock's *Sabotage* (1929), in *Things to Come* (1936), even in *Aliens* (1979).
  - 18 An obvious case of similar drawings, perspective not awry, 1550–1750 versus the twentieth century: Edward Carrick, *Designing for Moving Pictures*, 96, 98; compared to the survey *Perspective: History, Evolution, Techniques*, introduction by Pierre Descargues, tr. N. Paris (New York: Van Nostrand, 1982; orig., 1976).
  - 19 David Hutchison, *The Art and Science of Special Effects* (New York: Prentice-Hall Press, 1987), 23.
  - 20 *Aelita* was directed by Yakov Protazanov, starring Nikolai Tseretilli, Velantina Kuinzhi, Julia Soinseva. The costumes by Elexandra Exter

- (1884–1949) are often cited as extensions of Exter’s work for Tairov, for *Salome* (1917) and *Romeo and Juliet* (1921).
- 21 Frederick A. Talbot, *Moving Pictures: How They are Made and Worked* (Philadelphia: J.B. Lippincott Company, 1912), 261.
  - 22 Carl Lewis Gregory, *Motion Picture Photography*, ed. H. McKay (New York: Falk Publishing, 1927; orig. 1920), see chapter XVII, “Trick-Work and Double Exposure,” 267–287. Sponsored through the New York Institute of Photography, this textbook became a standard in the film industry during the twenties.
  - 23 Indeed, Milton’s *Paradise Lost* was also an inspiration for Mary Shelley’s *Frankenstein*. But those Doré illustrations of *Paradise Lost*, for a folio edition with black-line wood engravings in 1863, relied on a panoramic depth of field similar to theater and operetta (Doré designed a version of his Milton illustrations for Offenbach). This pop Romantic hell suggested yet another Lucifer, an illusion so theatrical, he can only flourish outside the social contract. As I point out, the art direction of King Kong’s lair (1933) clearly borrows from Doré’s illustrations of Milton. Literary theorist Hugh Kenner first mentioned this me (see Kenner’s collection of essays, *Mazes* (1989), his chapter “Miltonian Monkey.”
  - 24 See note 19.
  - 25 *Ibid.*, 267.
  - 26 For a simple reveal of that trick, see *Postcards From the Edge*, 1990.
  - 27 “Adventures in Special Effects: Hazardous Oatmeal and King Kong’s Pliers,” *Technology Review*, Feb./March, 1982, 65.
  - 28 Carl Lewis Gregory; *Motion Picture Photography*, 278.
  - 29 Susan Stewart, *On Longing: Narrative of the Miniature, the Gigantic, the Souvenir, the Collection* (Durham: Duke University Press, 1993; orig. 1984), 61.
  - 30 “With These Machines Sam Goldwyn Made a Hurricane,” *Life*, Oct. 25, 1937, 106–107.
  - 31 “Mountain Moved to Camera,” *Popular Science*, Sept. 1947, 145.
  - 32 See note 2.
  - 33 *Ibid.*, 267.
  - 34 Again, for a simple reveal of that trick, see *Postcards From the Edge*, 1990.
  - 35 The formal patent for the Dunning-Pomeroy Process was 1927.
  - 36 Raymond Fielding, *The Technique of Special Effects Cinematography* (London: Focal Press, 1985; orig. 1965), 181. A standard text for the industry.
  - 37 H.A.V. Bulleid, *Special Effects in Cinematography* (London: Fountain Press, 1954), 100.

- 38 Bernard Wilkie, *Creating Special Effects for TV and Films* (London: Focal Press, 1977; orig. 1944), 13–17.
- 39 Dan Millar, *Cinema Secrets: Special Effects* (Secaucus: Quintet Publishing Limited, 1990), 89–90. Harryhausen used Dynarama. models for *Clash of the Titans*, more radio controlled (by Dynamation).
- 40 See also my chapter on “ani-morphs.”
- 41 James Schackleaford, as told to Herbert M. Baus, “Taking Fakes,” *L.A. Times*, August 9, 1936.
- 42 Charles Clarke, “Clouds Made to Order,” *American Cinematographer*, July, 1941, 315.
- 43 Flash powders: for smoky blasts, like the fake dynamiting of bridges. Comes in red, green, and white. Still used today with ignition device.
- 44 Kevin H. Martin, “The X-Men Cometh,” *Cinefex*, number 83, October 2000, 81.
- 45 *Ibid.*
- 46 *Ibid.*, 78.

## 2001 to 2001: Immersion into Deep Space. Baroque Reincarnation

- 1 Arthur C. Clarke, “Monoliths and Manuscripts,” *The Making of 2001: A Space Odyssey*, ed. Stephanie Schwarn (New York: Random House, 2000), 61.
- 2 *Ibid.*
- 3 Their modernist hero apparently was Buckminster Fuller, who was crucial to special-effects spatial logic in the late sixties.
- 4 In Clarke’s story “The Sentinel” (1950), the model for 2001, the monolithic structure “is not a building but a machine” (23). After twenty years, the invisible shield around the machine is cracked. It turns out to be a transmitter of sorts. It was part of the alien device that gave birth to the human species. It sent messages out into space, like signals from a virus to the nucleus of a cell. The story is reprinted in *The Making of 2001: A Space Odyssey*.
- 5 A pun on Deleuze’s *the Fold*, of course.
- 6 Slit scan was a digital film effect developed originally by abstract filmmaker John Whitney, Sr., in 1961, then refined and adapted by Douglas Trumbull and Con Pederson for the Stargate sequence at the finale of 2001. There is also a slit-scan pattern produced in physics, to indicate by laser

how light is made up of waves or of particles. Thus, the technique has a philosophical implication as well.

- 7 A pun on Janet H. Murray's *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* (Cambridge, Mass.: MIT Press, 1997.) "A digital artist might use the structure of the adventure maze to embody a moral individual's confrontation with state-sanctioned violence" (130).
- 8 As often happens with novelist/screenwriters and directors, Clarke often could not quite identify which scenes that he was writing would finally make it onto the screen; and was generally surprised during production, only partly in the loop, i.e., Clarke's scene for HAL's breakdown scene (Kubrick replaced it).  
Also, the short story that initiated the project, "The Sentinel" (1950), identifies an ancient metallic pyramid on the Moon that sends signals to Jupiter; and at Jupiter, the signals deliver more evolution. This was truncated as well. The epic and elegiac took over, and the POV almost reflected the confusion of those on the ship. That subjunctive mystery also echoed of how a movie is shot. Often the crew is too immersed in its chores to understand the narrative unfolding scene by scene. I have often felt that Kubrick was unintentionally reenacting the film crew's ignorance of the larger picture, while inside the set.
- 9 This spatial imperium in Hollywood science fiction—the space as narrator more than the characters—has been noted often, particularly by Frederic Jameson, Vivian Sobchack, and Scott Bukatman.
- 10 As a feature of *gesamkunstwerk* (total theater) in his design at Bayreuth, Wagner exaggerated the gulf of blackness (prescient isolation) between the audience and the stage, and also hid the orchestra from view, turned down the house lights into complete darkness, and often exploited pitch-darkness inside the proscenium arches.
- 11 The closest void to 2001 in Libeskind's Jewish Museum is a blank room that is air-conditioned to a chill. There you pretend in darkness to await death, or await never being born.
- 12 At the opening of Spielberg's *AI*, in June 2001—based of course on Kubrick's notes—a rumor spread through dozens of news sources: Kubrick had experimented for many years (fifteen to twenty) on using a real robot with plastic skin (presumably because a real boy would age on Kubrick's three-year shooting schedule, wind up with a beard, Kubrick's brother explained). The results were presumably laughable; so, after

- seeing *Jurassic Park*, Kubrick decided that Spielberg was better suited to crack the puzzle of how to present the robot boy.
- 13 “HAL doesn’t exist, and there’s no chance that some miraculous change in funding or insight will yield AI at the level portrayed by HAL.” David G. Stork, “The Best-Informed Dream’: HAL and the Vision of 2001, in *HAL’s Legacy: 2001’s Computer as Dream and Reality*, ed. David Stork (Cambridge, Mass.: The MIT Press, 1997), 5. A review of linguistic, visual, and “thinking” skills for the computer, as they stood in 1997, on FIAL’s “birthday” A curious quote: “HAL is two leaps ahead of today’s computers in his ability to recognize emotion. Today’s computers are affect-impaired; they blather on and on, filling your view with pages of output, regardless of whether you show interest or boredom.” (Rosalind W. Picard, “Does HAL Cry Digital Tears?” 285.) By 2003 surely, that problem had been front-loaded, in the expanded new uses for the computer as “companion.” See also special issue on robots, of *ID (Industrial Design Magazine)*, October 2000.
  - 14 Geoff Simmon, *Robots: The Quest for Living Machines* (London: Cassell, 1992), 154.
  - 15 Paul de Man, *Blindness and Insight* (London: Oxford University Press, 1971), 147.
  - 16 Gotham and Metropolis suggest two versions of New York: Batman’s Gotham (noir, influenced by the *Dark Knight* graphic novels of the eighties); or the gentler Metropolis, Superman’s New York (especially from the Fleischer *Superman* cartoons 1940–1942), more like a movie serial of the late thirties. Also the Marvel and Detective comics variations.
  - 17 Tolkien does have a special-effects moment featured in *The Fellowship of the Ring*. Gandalf designs fireworks as “special effects.” The scintillating birds, fountains of butterflies, fireworks as sailing ships all suggest Baroque illusion, help position the story in a variation of the seventeenth century as Druid prehistory. (New York: Ballantine Books, 1965), 51
  - 18 R. Buckminster Fuller, *Operating Manual for Spaceship Earth* (New York: Pocket Books, 1970; orig. 1969), 78–79. Fuller—the master utopianist—was extraordinarily influential in the late sixties, in science fiction, architecture, industrial design.
  - 19 Doug Trumbull, “2001 and After,” *Hollywood Reporter*, December 4, 1970.
  - 20 *Ibid.*
  - 21 *Ibid.*
  - 22 “How They Do It in the Movies,” *Hollywood Studio*, Sept., 1975, 28.

- 23 *Ibid.*, 29. Richard Rickitt, *Special Effects*, 261. The use of raw meat with squibs appeared in *Straws Dogs* (1971, dir. Sam Peckinpah, effects supervisor, John Richardson).
- 24 “How They Do It in the Movies,” 29.
- 25 Special-effects black powder comes in various grades, usually a mix of charcoal and potassium nitrate, in cardboard boxes of fine dust or small chunks. (Richard Rickitt, *Special Effects*, 262–263.).
- 26 “How They Do It in the Movies,” 29.
- 27 Comment by effects supervisor John Richardson, in Richard Rickitt, *Special Effects*, 263.
- 28 Dave Evans and Ivan Sutherland are partners in Evans and Sutherland, a leading computer modeling and simulation firm. Together they “pioneered 3-D modeling and visual simulations, the basis for computer graphics, computed aided design (CAD), and interactive pilot training simulators widely used in military and commercial aviation” (<https://www.sun.com>). (2003)  
On their website, they promise (2003) “the next generation visual system aviation training, etc.” “A range of solutions for military and commercial training and simulation.”
- 29 Paul M. Sammon, *Future Noir: The Making of Blade Runner* (New York Harper-Collins, 1996), 74.
- 30 From the now famous Ridley Scott interview for *Cinefex*, number 9, July 1982; and then in numerous sources on *Blade Runner*, in Sammon (75), in Scott Bukatman’s *Blade Runner* (London: British Film Institute, 1997).
- 31 *Ibid.*, 231. Quote from Douglas Trumbull, effects supervisor on *Blade Runner*. The scene is quoted in *Akira*.
- 32 *Blade Runner Storyboard*, March 4, 1981. The advertising had not yet been selected for the blimp.” Eventually, it would be modeled on downtown Tokyo video billboards.
- 33 Norman M. Klein, “Building *Blade Runner*,” *The History of Forgetting* (London: Verso, 1997)
- 34 *Blade Runner Sketchbook* (Blade Runner Partnership) (San Diego: Blue Dolphin, 1982).
- 35 Inspirational sketches: A term from the thirties Disney studio; representing the mood of the art direction/layout. See Frank Thomas and Ollie Johnston, *Disney Animation: The Illusion of Life* (New York: Abbeville, 1981).
- 36 Paul M. Sammon, *Future Noir: The Making of Blade Runner* (New York Dey Street Books/Harper Collins, 1996), p. 75.

- 37 *Blade Runner Sketchbook*, 3.
- 38 Paul M. Sammon, *Future Noir: The Making of Blade Runner* (New York: Dey Street Books/Harper Collins, 1996), p. 79.
- 39 Kobe Harbor Fantasy.
- 40 Frank Lloyd Wright's Ennis Brown House (1924, Los Angeles), in Wright's Mayan style (like his Barnsdall House up on a hill further south). -"Rubber models of the cast-stone tiles were used to create a uniform look in the interior hallways" (*Blade Runner Sketchbook*, 31.)
- 41 *Ibid.*
- 42 Lawrence O'Toole, "Special Effects: the Bright New Stars," *Macleans*, July 19, 1982.
- 43 Debra Kaufman, "Pacific Data Images: The Once and Future of CGI," *Animation Magazine*, volume 7, issue 6, July/August, 1994.

## Animation as Baroque: Fleischer Morphs Harlem; Tangos to Crocodiles

- 1 See: Robert Lang, *American Film Melodrama: Griffith, Vidor, Minneili* (Princeton: Princeton University Press, 1989). This is a widely traveled subject, in feminist theory as well. For my summary, see sections on melodrama in *Seven Minutes* (1993).
- 2 Also called "quick sketches." Film historian Donald Crafton initiated much of the academic study of lightning hand. He expanded his articles on the subject in *Before Mickey: The Animated Film, 1898-1928* (Cambridge, Mass.: MIT Press, 1982). The term "lightning drawing" has become fairly standard in critiques of student work at various film schools (at USC and CalArts certainly). In other words, the problems suggested by linear metamorphosis remain fundamental to the field, even today, with the daunting presence of the computer.
- 3 *Humorous Phases of Funny Faces*, 1906 (Blackton).
- 4 *Little Nemo*, 1911 (McCay). See: John Canemaker, *Winsor McCay, His Life and Art* (New York: Abbeville Press, 1987), 132. *Little Nemo* was produced by Vitascop, Blackton's company.
- 5 Interview with Ward Kemble, July 1987.
- 6 Chalk remains a useful metaphor here, at least as an excuse to play with the poetics of jargon: Chalk can be erased, broken into dust, shaded by hand. It has texture, facture, sound, what can be called the haptic

(tactile, sinaesthetic). The haptic is essential for the animated line, for all special effects, in one of two categories: either it looks anabolic (turning food into tissue) or metasomatic (rocks changing substance). The hesitation/lapse should emphasize one of those two as well, to reveal the mode of production (the animator at work), more than the story. For example, chalk is metasomatic, but primordial ooze is anabolic (microorganisms in mud). The metallic liquid man in *Terminator 2* remains fiercely metasomatic. The Brundlefly in *The Fly* is hopelessly divided, both anabolic and metasomatic.

- 7 Apparently Lucas's *Willow* may have been the first Hollywood big-budget feature to employ computerized morphing.
- 8 Walter Benjamin, *The Origins of German Tragic Drama*, tr. J. Osborne (London: New Left Books, 1977; orig., 1963), 178–179. These are the classic pages, so often cited, discussed in detail by Susan Buck-Morss, by art critics Benjamin Buchloh and Craig Owens.
- 9 This is similar to what I call “distraction” in *The History of Forgetting* (London: Verso, 1997).
- 10 Frank Thomas and Ollie Johnson, *Disney Animation: The Illusion of Life* (New York: Abbeville Press), 138.
- 11 *Personality* was a very specific term for Walt Disney, as discussed in Thomas and Johnson's *Disney Animation; The Illusion of Life*, and in numerous documents from the thirties. Personality was the point where a character went through a cartoon conflict, reflected in the graphic design, rhythm, colors. Personality was laid out by the story department: certain constants on how this personality responded to being stuck to flypaper, for example (dumb, self-willed, quick to anger, slow to anger, cheerful, paranoid).

But personality also had a second meaning during the thirties (and since, on TV for example, often called a “personality” medium). This was less discussed at Disney, simply understood—that Mickey or Donald were as familiar as star personalities of the studio era (Gable, Garbo, Laurel and Hardy). A personality always lived outside the narrative diachrony, even while the movie arc continued along. He or she was a living myth, and the details of the myth were written above, as much as into the story. Thus, star vehicles, in many ways, were a variation on top of film drama—distancing devices based on glamour. Disney understood that problem as perfectly as any mogul of his day or our day. He knew that endorsements were his

ticket to independence, by licensing his personalities, and keeping them marketable enough.

- 12 *Ibid.*, 148–149.
- 13 Frank Thomas and Ollie Johnson, *Disney Animation: The Illusion of Life*, 149.
- 14 See *Moving Day* (1936), *Clock Cleaners* (1937), among the best of Art Babbitt's renditions of Goofy. And then the *Sport Goofy* series directed by Jack Hanna in the forties and fifties.
- 15 The most widely noticed examples are in *Popeye the Sailor Meets Sinbad the Sailor* (1936), or in *Sinbad the Sailor* (1939), because they are in public domain, and in many video stores, and in color, which enhances the irony. Many other shorts by Fleischer in the thirties used tabletop miniatures ("3-D Process"), including a *Boop* in color, and the two features (*Gulliver's Travels* and *Mr. Bug Goes to Town*). In all of these, the 3-D is only in a few scenes. Generally, fans remember the 3-D *Popeyes* most of all.
- 16 Ani-morphs from this sequence were isolated in *Seven Minutes* (London: Verso, 1993), for example, 79, 93.
- 17 Hoochie-koochie: a pseudo-Egyptian belly dance that was popular at burlesques and "hoochie-koochie" parlors.
- 18 See Kenneth T Jackson, *The Ku Klux Klan in the City, 1915–1930* (New York: Oxford University Press, 1967).
- 19 The dog and mouse characters of that era, including Freleng's Bosko for Warner's, the early Mickey Mouse of course, as well as Fleischer's Bimbo, often show traits that suggest black men. These mannerisms are mixed, of course, with those of white males (the voice, the plots). It is another peculiar coding of black to white, here as a trope where domestic animals mutate almost into humans, but never entirely. It also identifies the deep presence of black dance, music, and theater in the sources for these cartoons.
- 20 See Norman Klein, *The History of Forgetting* (chapters on film locations, on the shock waves after 1992, on cinematic responses in police films, on special-effects disaster films, on films reenacting the Rodney King beating).
- 21 Carolyn Steel, "Space that Breathes," *Blueprint*, Oct. 1995, 42.
- 22 Bruno Schulz, *The Street of Crocodiles*, tr. C. Wieniewska (New York: Viking Penguin, 1977; orig. 1934). The Quays used a different translation, clearly, since the quote at the end of the film does not match the same passage here, on page 110.
- 23 Gilles Deleuze, *Cinema 1: The Movement-Image*, tr. H. Tomlinson and B. Habberjam (Minneapolis: University of Minnesota Press, 1986; orig. 1983), 83.

- 24 The puppet's head in *Street of Crocodiles* is of compared to the face of the great installation artist Joseph Cornell, clearly a resemblance.
- 25 Rainer Maria Rilke, "Dolls: On the Wax Dolls of Lotte Pritzel," in *Essays on Dolls* (London: Penguin Books, 1994), 32–33.
- 26 Among the Quays' commercials: Honeywell Computers, Skip's Crisps, ICI Woodcare, BBC2, Coca-Cola, Slurpee, Partnership for a Drug Free America, MTV Nikon.
- 27 Among music videos by the Quays: "His Name Is Alive," Michael Penn, "16 Horsepower," Peter Gabriel (Contributed to *Sledgehammer*).
- 28 I decided not to summarize what this warning is, clearly about how identity dissolves—first in the usual debates about public and private space (architectural theory), second in debates about the post-human body (e.g., the writing of Kathryn Hayles, Susan Straight, Donna Haraway).
- 29 The key essay appears to be: Thaddeus Beier and Shawn Neely, "Feature-Based Image Metamorphosis," *Computer Graphics*, vol. 26, no. 2 (July, 1992), 35–42. In 1992, Siggraph helped to popularize morphing, as it did in 1995.
- 30 *Morph's Outpost on the Digital Frontier* was a monthly magazine in the nineties. (*Daily Spectrum*, Sept. 11, 1995); (*Wired*, Sept./Oct., 1993), with contributors from Multimedia and Videodisk Monitor; Envisioneering; Macromedia User Journal; the firm Gistics. Its founders Craig LaGrow and Doug Millison sponsored a cartoon character named Morph, "the silicon surfing Sherpa," with a touch of nineties graffiti art.
- 31 *Détournement*: the fissure or suture, the hidden layer behind the surface—a term developed by Situationists in the fifties, to advise walkers through the city on how to use their vision more surgically, more radically.

## Panoramic Chases into Nowhere: From Tex Avery to *Independence Day*

- 1 Press Kit, New Line Cinema, *The Mask*. For example, p. 8: "utilizing cartoons antics made popular by Tex Avery and Chuck Jones and applying them to Jim Carrey ... Anything you see in these cartoons we will be mimicking ... his eyes will bug out, his chin will drop to the floor, his head turn into a wolf and he'll let out a big wolf whistle."
- 2 Jody Duncan, "From Zero to Hero," *Cinefex* 60, 48.
- 3 *Variety*, July 28, 1994.
- 4 *Variety*, August 1, 1994.

- 5 *Los Angeles Times*, July 23, 1994, Calendar, 3.
- 6 *Pulse*, August, 1994, 78.
- 7 *Los Angeles Times*. Also in *New York Times*, July 24, 1994, H13: "Jim Carrey is turned into a Tex Avery cartoon."
- 8 The distributor of *The Mask*, New Line, promoted this *cartoon look* in the press kit, in print ads, in every interview I found.
- 9 In *Seven Minutes; The Life and Death of the American Animated Cartoon* (London: Verso, 1993), I call this "screwball noir." Warner's chase cartoons parallel the overlapping dialogue and zany pratfalls of screwball comedies, as well as the fatalism of noir, in a welter of caricature and allusion. The key element here is "allusion," to play with the viewer's memory of this era, much the way Lucas and Spielberg's blockbusters do, by archiving tropes from 1941 into the Cold War. So also, MTV unspools allusion to personal bad habits. Or *Independence Day* satirizes fifties sci-fi films.
- 10 The effects supervisor is the only person on the crafts team who meets regularly with the director.
- 11 Stories about the hierarchy at Warner's animation from 1938 on clearly indicate extraordinary rivalries among young animators like Chuck Jones and Bob Clampett, to get their own "unit," to get Schlesinger to release a few extra weeks for one film or another. These hatreds continued even fifty years later, I discovered.
- 12 For example: Carl Lewis Gregory, *Motion Picture Photography* (New York: Falk Publishing, 1927). Tracing the history of how special effects changes is often a feature in how-to industry books. Thus, we understand cinema immediately after sound, after color, after cinemascope, after early digital techniques ...
- 13 Among various emerging fields that rely increasingly on animation: environmental design; entertainment design.
- 14 Charles Platt, "Interactive Entertainment. Who writes it? Who reads it? Who needs it?" *Wired*, Sept. 1995, 195.
- 15 Andre Bazin's imagined a dialectic energy between the cinematic space and the actual space where the film is shot. Both spaces are a kind of realism. This puzzle essentially ignores the role of animation. For animation, the realistic space inside the set is artificial. But the handmade gags that intrude from outside real. They pierce the fourth wall, point to "real" spaces outside the frame, where the tricks are made. And finally, they points to the audience looking in. The audience is caught in a power struggle. It can only pretend to be in control of the gags.

- 16 Microcosm: see chapters 1 and 3. Or use the “search engine/Index/Appendix.”
- 17 For parallels in the working process of classic animators, beside the interviews by Joe Adamson at UCLA Special Collections, another example: Chuck Jones, “The Making of *Duck Dodgers*,” *Millimeter*, Feb. 1987, not only about how clearly Jones understood the relationship between the ‘viewer and Daffy and Bugs, but also how he designed a film (art directed in mock cinemascope by Maurice Noble) that became a working model for George Lucas. Interview with Noble: Harry McCracken, “Stepping Into the Picture,” *Animato*, number 21, Spring 1991. Also articles that refer to the visceral impact of animation effects, for example, the classic essay by Mike Barrier, “Of Mice, Wabbits, Ducks and Men: The Hollywood Cartoon,” *AFI Report*, Summer 1974: “The best cartoons by Jones, Clampett and Avery are exhilarating because they invite a *physical* response” (25). *Physical* as in a ride movie.
- 18 I am referring, of course, to Beaudry and Metz here, to the presence of the machine within the experience of cinema, and the making of cinema. I also consider Baroque theatrical machines as apparatus. I already began to use the sixteenth-century term *machina versatilis* in *Seven Minutes: The Life and Death of the American Animated Cartoon* (1993), but have since developed the problem far beyond that rudimentary reference, to theories on the role of the computer as cybernetic device, about the program in any “scripted” space, as I call it, and the tradition of magic itself—the hand-made control of the natural. Thus, apparatus is practically an ontological journey through the European and American fascination with the mechanical in animation (even Benjamin on Baroque theater, etc.). No wonder special-effects films make such a fuss of apparatus in their stories. But to reinforce what I say in the main text: Apparatus—in animation—is always *also* a self-reference to how production of the film or play is revealed, thus to the way power operates in the movie business or the theater.
- 19 One form of nineteenth-century dramatic narrative is melodrama, where the torque of these capitalist metonyms is given the pathos of a horror tale about salvation. I discuss melodrama in *Seven Minutes*, only briefly. Its fundamental importance in feminist theory; particularly about television, simply would collapse the subject of this essay.
- 20 Black Horse has since sold a number of their characters for films: *Los Angeles Times*, July 31, 1994 (Calendar section).

- 21 I develop this principle in my opening chapter for *Seven Minutes: The Life and Death of the American Animated Cartoon*, essentially a structuralist model. But let me explain in the terms that I use with animation students: If you were making a special-effects film about *Little Red Riding Hood*, and the actress came to you asking: “What is my motivation?” what would you say? The students always answer: “To go to Grandma’s house.” They are surprised that this is a kind of correct answer for special effects and animation, for Avery’s *Red Hot Riding Hood*, etc.

Little Red Riding Hood—as a story character—is a cipher. She is not so much uncoded as missing her dramatic interior, an absence filled by the memories of childhood of the audience, who in turn complete her emotional journey. The audience, therefore, navigates the story through choreographed architecture, where mixed effects are highly charged, playful, and timed well.

Then I might show the live-action feature *Company of Wolves* (1984, dir. Neill Jordan). We follow its trail of folkish artifices step by step. There is an uneasy mix of drama and fairy tale. The folkloric is elemental, thus can never merge cleanly with the dramatic. That very unease (its artifice) is essentially the story conflict.

And, of course, someone always brings up Brecht’s notion of epic theater, as similar, but applied to different ends, using the disjunction between drama and the elemental as a distancing effect. Modernists of the twenties revived Artifice in theater and film; and in graphic-design storytelling, i.e. Lissitzky’s *Tale of Two Squares* (1922), cinema of Oskar Fischinger.

- 22 Walter Benjamin, *The Origins of German Tragic Drama*, tr. J. Osborne (London: New Left Review Books, 1977; orig. 1963, of book pub. 1928).
- 23 For example: Bertolt Brecht, *A Short Organum for the Theater*, ed., tr., J. Willett (New York: Hill and Wang, 1964; orig. 1957).
- 24 Janet Maslin, “Wild Card in a Game of Dirty Tricks,” *New York Times*, July 29, 1994, Arts and Leisure, 1.
- 25 *New York Magazine*, August 15, 1994.
- 26 Bildung, in German: an Enlightenment journey that doubles inside its bourgeois struggles; associated with Goethe in particular, also a reminder of the strategies in eighteenth-century theater (and staging) that generated the Romanticist novel.
- 27 Obviously referring to Baudrillard’s essays on simulation since 1981, and his book *Forget Baudrillard* (1993). Baudrillard views simulation as a nihilis-

tic debacle that we have to endure cheerfully. That particularly dazzling insight does not quite square with my research for this book. My sense is that simulation is a highly structured narratized relationship, where fantasies about power and audience are played out, quite literally, as in the animated space, and now in these special-effects films. It also is very much a preindustrial form of navigated space, hardly the exclusive domain of poststructuralism since 1970. Nor does Baudrillard ever pretend that simulation is an end in itself. And his theories have long since advanced beyond that 1981 essay. He is a passenger reporting on collective madness since the late sixties.

- 28 Colin Brown, "Cost Effective" *Screen International*, March 1, 1996. See also interview with Dennis Muren, senior visual-effects supervisor at ILM, *Omni*, Nov. 1993: Muren explains that with *digitized* stop-motion animation, "you could get your shots without it being too screwy and complicated" (114), more like an assembly line kept inside a single building.
- 29 Jody Duncan, Kevin H. Martin, Mark Cotta Vaz, "Heroes' Journey," *Cinefex*, number 78, July, 1999, 78.
- 30 Laurie Hooper, "Digital Hollywood," *Rolling Stone*, August 11, 1994, 75 (54ff).

## The Sim Future of the Cinematic City

- 1 Sir Arthur Conan Doyle, *The Sign of the Four*, end of chapter 3.
- 2 Frank Niftier, *The Dark Knight Returns* (New York: DC Comics, 1986).
- 3 The term cinematic city: David B. Clarke, ed., *The Cinematic City* (London: Routledge, 1997).

Other useful texts (for basic discourse and bibliography, on a vast subject, linked to theory and historical practice): Mark Shiel and Tony Fitzmaurice, eds., *Cinema and the City: Film and Urban Societies in a Global Context* (London: Blackwell, 2001); Annette Kuhn, *Alien Zone II: The Spaces of Science Fiction* (London: Verso, 1999); Francois Penz and Maureen Thomas, eds., *Cinema as Architecture* (London: British Film Institute, 1997); Dietrich Neumann, ed., *Film Architecture: From Metropolis to Blade Runner* (Munich/New York: Prestel, 1996).

Also (a partial overview of related sources), special issues in film journals (*Wide Screen*, Spring 1998, etc.), numerous studies on *Blade Runner*, on special effects (and magazines like *Cinefex*), on the consumer-built city (*Archi-*

*tectural Design*, Feb. 1998), on “cinematic geographies” (Christopher Lukinbeal, etc.), cinematic urbanism (Thomas Laical, etc.), cinema and city by G. Bruno, M. de Certeau, T. Elsaesser; also the vast literature on noir and the city; writings by Mike Davis and myself on noir Los Angeles; and finally, the literature on computer gaming, software, rides, themed and digital architecture, and the production of space. Also, movie theater and *Cinematic City: Lary May, The Big Tomorrow: Hollywood and the Politics of the American Way* (Chicago: University of Chicago Press, 2000).

- 4 Another way of looking at the three:  
The city as labyrinth: moral chaos.  
The city as solipsistic, fascist overcontrolled.  
The city as a reification of industrial capitalist systems of power and hierarchy.  
All three suggest a world where free will cannot survive, the city as the death of the democratic impulse.
- 5 City as labyrinth: expanded from the first note, the city as labyrinth goes back to medieval Troy games, if not earlier, but more clearly, its meaning stems from a seventeenth-century term, the *labyrinth of the world*: labyrinth as human follow, reified as an urban plan. This meaning survived into Romantic descriptions of the city (Shelley, De Quincey, Hugo, Gautier; then into novels by Dickens, Sue, etc.; and then into the early crime novels of Poe and Doyle; finally into noir crime literature—and film—(noir to cyberpunk). Among its symptoms: paranoid tracking shots, handheld cameras in tight places, to generate a loss of place that, in turn, offers up the city as labyrinth, classically in twenties German cinema, and then in film noir
- 6 A useful summary of the considerable literature on the solipsistic city: Samuel Nunn, “Designing the Solipsistic City: Themes of Urban Planning and Control in *The Matrix*, *Dark City*, and *The Truman Show*,” *CTheory*, 2001.
- 7 My research is starting to indicate that New York/New York may be modeled more on souvenirs than movies (see chapter 17).
- 8 Comment by Saku Lehtmen, art director at Remedy Entertainment, who produced *Max Payne*.
- 9 As in Samuel Butler’s *Erewhon* (1872), but much grimmer.
- 10 Anthony Vidler, “The Explosion of Space: Architecture and the Filmic Imaginary” in *Film Architecture*, ed., Dietrich Neumann (Munich: Prate, 1996).

- 11 See Siegfried Kracauer, *The Mass Ornament: Weimar Essays*, tr. T Levin (Cambridge: Harvard University Press, 1995; orig. 1963). Twenty-four essays selected by the author. Renewed interest in this aspect of Kracauer's work grows in the United States, for example: Gertrud Koch, *Siegfried Kracauer: An Introduction*, tr. J. Gaines (Princeton: Princeton University Press, 2000; orig. 1996), chapter 3. As I mentioned in chapter 5, and elsewhere, ornament is the withdrawal of space, the replacement of scripted space with patterning. Thus, it also has the lingering odium of being anti-spatial, antiurban, purely decorative.
- 12 "Down these mean streets a man must go who is not himself mean, who neither tarnished, nor afraid." Raymond Chandler, *The Simple Art of Murder* (New York: Vintage/Random House, 1988; orig. 1950), 18.
- 13 From a short newspaper column (*feuilleton*), in 1930, cited in Janet Ward, "Kracauer Versus the Weimar Film-City," in *Peripheral Vision: The Hidden Stages of Weimar Cinema*, ed. Kenneth S. Calhoon (Detroit: Wayne State University Press, 2001), 44.
- 14 Also cited by Janet Ward, 52 (note 20), from Paul Virilio's *The Overexposed City*, in *Zone 1/2* (1986). See also Virilio studies on *Critical Space*.
- 15 The most recent study: Fritz Lang's *Metropolis: Cinematic Visions of Technology and Fear*, ed. Michael Minden and Holgar Bachman (Rochester: Camden House, 2000).
- 16 John Alton, *Painting with Light* (Berkeley: University of California Press 1995; orig. 1949).
- 17 *The Device*: When Siegfried Kracauer used the term "device-created fantasies," he was referring mostly to the movie *The Red Shoes*, hardly to twenties Germany cinematography (*Theory of the Film: The Redemption of Reality* (Princeton: Princeton University Press, 1997; orig. 1960), 88. I take license here to capture his decades-long obsession with mass ornament in cinema, and imagine that he would have agreed that paranoia also has its devices, its furnishings and tropes. These work in much the way that a single ripe technicolor did in the whirligig death of the ballerina in *Red Shoes*. Similarly, Cocteau in *Beauty and the Beast* (1945) uses theatrical devices as special effects: costuming, avoiding mattes, the presence and solidity of the Beast's world very much a *heimlich* seventeenth century where Beauty lives. The staging is the intention, very much the way *trompe l'oeil* is almost parodied when beautiful young men dress as statues in the fireplace (again Diderot and Descartes, the statue as the machine). The smoke drifts from the statue's nose, while its (his) eyes follow Beauty's father

- walking restlessly—very much a Baroque affect and (effect) as a device-created fantasy.
- 18 The sense that eastern downtown in L.A. is actually Soho or Tribeca has led L.A. developer Tom Gilmore to redesign it as the ‘Artist (loft) District,’ as Lower New York west. (2022: The Artist District has gone on to become the most expensive real estate in downtown)
  - 19 “Mackenzie Wasson, ‘A Stone’s Throw Away: Quarry Where Film Action Is,” *The Los Angeles Times*, Calendar, March 30, 1969.
  - 20 “Lincoln Heights jail Stages a Comeback,” *The Los Angeles Times*, April 16, 1970.
  - 21 In *Bleeding Through*, one of the files in Tier 3 includes information on films shot inside the Belmont Tunnel. (2022: The Belmont Tunnel is now closed, and an apartment complex put in its place. See “The Future of Forgetting” in Norman M. Klein, *Freud in Coney Island and Other Tales* (Los Angeles: Otis, 2006).
  - 22 Details on the legal side of this story in “New York/NewYorks” section in chapter 17.
  - 23 In addition to the vast archive in the *Los Angeles Times* on Hollywood and Highland, see Josh Stenger, “Return to Oz: The Hollywood Redevelopment Project, or Film History as Urban Renewal,” in *Cinema and the City* (see note 1).
  - 24 TrizecHahn Archive, Jan. 29, 2002; SCT Newswire (Shopping Center Today), Dec. 16, 2002.
  - 25 Andrew Murr, “Hope for Oscars Home,” *Newsweek*, March 16, 2003, Elizabeth Church, “Munk Says REIT’s Birth Painful,” June 3, 2003, B4 (TrizecHahn is a Canadian Corporation, and the second largest real estate trading company in the U.S.).

## Noir Disney

- 1 John Hockenberry “Inside Disney,” *The International Design Magazine*, March/April, 1998, 58.
- 2 Steven Watts, *The Magic Kingdom: Walt Disney and the American Way of Life* (Columbia: University of Missouri Press, 1997), 389.
- 3 *Ibid.*
- 4 Brad Wieners, “Scream Machine,” *Wired*, May 1999.

- 5 Karal Ann Marling, "Imagineering the Disneyland Theme Parks," in *Designing Disney's Theme Parks: The Architecture of Reassurance*, ed. Karal Ann Marling (Paris: Flammarion, 1997), 175.
- 6 Marty Sklar, "The Artist as Imagineer," in *Designing Disney's Theme Parks: The Architecture of Reassurance*, 16.
- 7 Ward Kimball went on a weeklong trip by train with Walt—to Chicago. Kimball (1990) told me that Walt knew the Chicago subway system by heart, that he had worked as a mailman there for a time. Kimball claimed that Walt's love of trains came out of this trip in particular, during a recovery from nervous collapse. Kimball had a full-size old train running in his backyard.
- 8 Johnston had a train set very similar to Disney's Carolwood trains (about  $\frac{1}{4}$  scale, oversized) running in his garage (1990).
- 9 *Disneyland: The First Quarter Century*, promotional book (1980), 114.
- 10 Imagineer Harper Goff was inspired by *The African Queen*.
- 11 Van Arsdale France, *Window on Main Street: 35 Years of Creating Happiness at Disneyland Park* (Nashua, New Hampshire: Laughter Publications, 1991), 15. France was the founder and professor emeritus of the University of Disneyland. Laughter Publications was located at 80 Main Street in Nashua.
- 12 See Part I of Norman Klein's *The History of Forgetting: Los Angeles and the Erasure of Memory* (London: Verso, 1997).
- 13 Oliver Pilat and Jo Ranson, *Sodom by the Sea: An Affectionate History of Coney Island* (Garden City: Doubleday, Doran and Co., 1941) 136.
- 14 *Ibid.*, 136–137.
- 15 *Ibid.*
- 16 Lecture for the Nevada Historical Society, 1993.
- 17 Discussions at California Institute of the Arts, 1985.
- 18 Robert Edmond Alter, *Canty Kill* (Berkeley: A Black Lizard Book, 1986; orig. 1966), 1.
- 19 *Ibid.*
- 20 Norman Klein, *The History of Forgetting*, Part I.
- 21 The "anti-Mickey" fad began in the sixties, even included a revolt at Chouinard Art Institute when Disney bought the downtown L.A. art school—in caricatures by designers like John Van Hammersfeld. Some of these artists later joined the underground cony ix movement in San Francisco; thus the Rickey Rat co ix and spoofs of Disney that brought some artists into court for libel. And the classic study *How to Read Donald*

*Duck*, by Matellart and Dorfmann (tr. David Kunzle), critiquing the Disney comics in Latin America, as the baggage of American imperialism. Finally, in August 1970, at the twenty-fifth anniversary of the bombing of Nagasaki, Main Street was occupied by antiwar activists, and a flag with a picture of marijuana floated, right near where Walt's apartment was still kept as a shrine.

- 22 Aubrey Menen, "Dazzled in Disneyland," *In Search of Eden*, ed. Leo Hamalian (New York New American Library, 1965), 317. Cited in Steven Watts, *The Magic Kingdom: Walt Disney and the American Way of Life*, 390.

### Scripted Spaces: Navigating the Consumer-Built City

- 1 By industrialization of desire, I am suggesting how modernists (Cubism et al) have reinforced popular marketing on a Fordist scale (since the 1920's). With sixties minimalism and pop as inspiration, the Industrialization of Desire implies that designers of the nineties—for theme parks or consumer cities—used many of the same promotional methods as industrialists. They were not deconstructing the modern, but rather 'building' sites that fit into electro/digital capitalism. This also inspired a reurbanization just getting started in 2003; that within two decades brought new levels of simulation into neighborhoods. waiting on the wrong side of the tracks worldwide). The postmodern era had ended. The other shoe had dropped. (While evolving the term *scripted spaces*; discussions in 1994–95 with Richard Hertz; work on Scripted Spaces conference with Peter Lunenfeld, 1998; discussions on spatial media with Lev Manovich, 1995–2002.)

### Outside the Labyrinth: Architainment in Las Vegas

- 1 See: Hal Rothman, *Neon Metropolis: How Las Vegas Invented the Twenty-First Century* (London: Routledge, 2002); and "Colony, Capital, and Casino: Money in the Real Las Vegas," in *The Grit Beneath the Glitter; Tales from the Real Las Vegas*, eds. Hal K. Rothman and Mike Davis (Berkeley: University of California Press, 2002).
- 2 "Joint NGO comments on the strategy on forest development cooperation," in a fern bar site (2002), an ancestor to hipster bars today.

- 3 “American dollars surging into the warlord economy in Afghanistan,” transcript, *Wide Angle*, PBS, 2003.
- 4 “Foundations of Civil War Violence,” Santa Fe Institute, 2002. Aaron Sheehan-Dean, *The Calculus of Violence: How Americans Fought the Civil War* (Cambridge: Harvard University Press, 2018).
- 5 Much of this was already predicted by Herbert Marcuse in *One Dimensional Man* (1964), and in hundreds of books since: including Baudrillard on Seduction; Deleuze and Guattari—and Foucault—on the culture of control.
- 6 “Casino Industry: Companies Braced for War,” *Las Vegas Review-Journal*, Feb. 15, 2003.
- 7 “Inside Gaming,” *Las Vegas Review-Journal*, June 22, 2003.
- 8 Mike Weatherford, “Entertainment: Hot Fun in the Summertime,” *Las Vegas Review-Journal*, June 22, 2003.
- 9 Guy Trebay, “Las Vegas Returns to its ‘Sin City’ Roots,” *New York Times*, June 10, 2003
- 10 *Ibid.*
- 11 *Ibid.*
- 12 Perry Bruce Kaufman, *The Best City of The All: A History of Las Vegas, 1939–1960* (Ph.D. diss., University of California, Santa Barbara, 1974), chapter 4.
- 13 John M. Findlay, “Suckers and Escapists? Interpreting Las Vegas and Post-war America,” *Nevada Historical Society Quarterly*, 33:1, Spring 1990, 10. See also Findlay’s classic study, *People of Chance: Gambling in American Society from Jamestown to Las Vegas*. (New York Oxford University Press, 1986), chapters 4–6.
- 14 Highway 91, from Utah into Nevada and California, was called the Los Angeles Highway for decades.
- 15 Eugene P. Moehring, “Suburban Resorts and the Triumph of Las Vegas,” *East of Men, West of Zion: Essays on Nevada*, ed. Wilbur Shepperson (Reno and Las Vegas: University of Nevada Press, 1989), 158. Such a vast literature on Las Vegas. Among the new experts: Hal Rothman (a gentle and very admirable scholar: 1958–2007).
- 16 To track this process since the Korean War, see the many articles and books by Seymour Melman since 1958, particularly about his signature term “the permanent war economy” In 2003, Melman indicates that half of the discretionary federal budget is now absorbed by military spending, a crucial factor in the decaying infrastructure diminished investment for industries that employ Americans.

- 17 Frances Anderton, "The Global Village Goes Pop Baroque," *New York Times*, Oct. 8, 1898, B9.
- 18 "Marm's Travels," <https://www.marmsweb.com>. (2003).
- 19 At slot-machine conventions, the multiple functions of slots are heralded: tracking systems on the floor, banking records, polling devices, inventories, networking with other casino records are all possible at once. They are almost military in their ability to multitask for Palm Pilots, screens of all kind.
- 20 While the new slots are exceptional in their statistical control—and infinitely more complex in their visual games—by the seventies, much of the essential digital slot machine was already in place. See Jerome H. Skolnick, *House of Cards: The Legalization and Control of Casino Gambling* (Boston: Little, Brown and Company, 1978), 76.
- 21 "... Slow growth (brings) market share wars. That applies to both (slot machine operators) and manufacturers." Statement by Jose (Pepe) Charles, executive at Casino Data Systems; John Edwards, "The Game's the Thing," *Casino Journal*, Sept. 1998, 84. (*Casino Journal* was discontinued in 2021, during covid)
- 22 Examples of game within a game: *Treasure Time* from Sigma; new games from Bally.
- 23 Silicon Gaming (Odyssey)—their Product Information packet features a quote from Sam Goldwyn (indicating links particularly to MGM): "Reach for the Stars. You might not catch one, but at least you're heading in the right direction."
- 24 Among various games in 2002: *Arabian Riches*; bonus vacation maps; banana-rama animated monkey hosts; Fort Knox as an adventure game; *Three Wishes* magic lantern under glittery sky reminiscent of Disney's *Pinocchio*; *Riddle of the Sphinx*, lit like an Indiana Jones mystery; *Phantom Belle*; a live-action southern belle deals, then smirks while she hides her cards just above her cleavage; *Buccaneer Gold*, an atmospheric pirate deck modeled on the woodsy imagery of *Myst*; a glowing yellow palm-reading for *Lady of Fortune*; a magic wand coming to life in *Top Hat*.
- 25 Kirk Baird, "Pop Slots: New Slot Machines Taking on Pop Images," *Las Vegas Sun*, Sept. 23, 2002.
- 26 "Schwarzenegger Sues to Terminate Slot Machine Plan," *Las Vegas Sun*, Sept. 25, 2001.
- 27 *Snowbirds*: Visitors who stay for the winter in Las Vegas; often lower-end gamblers.

- 28 "US Slot Machine Makers Hit Jackpot on New Trends," *Casino Magazine*, May 8, 2001. In the first quarter of 2001, IGT more than doubled its shipments of machines. Eighty percent of that growth went to new California casinos.  
In the next decade, ten more states are expected to legalize gambling.
- 29 Rod Smith, "IGT Credits Technology for Growth," *Las Vegas Review-Journal*, Apr. 23, 2003.
- 30 "Tribes Netting Millions Monthly from Slot Machines," *Las Vegas Sun*, Apr. 23, 2003.
- 31 Janet Abrams, "Jackpot," *International Design Magazine (ID)*, Sept./Oct. 1999, 62. On the audio, the Baroque labyrinth effect of slot machines, 56: "The blind can win as easily at slots as the sighted ... The quality of sound is absolutely specific ... A multi-layered symphony, the ambient score is comprised of partial scales and jingles, maniacally repeated ... The timbre is eloquently artificial ... the siren song."
- 32 *Ibid.*
- 33 John L. Smith, *Running Scared: The Life and Times of Las Vegas Casino King, Steve Wynn* (New York Barricade Books, 1995), photo insert. An unauthorized biography.)
- 34 See J. L. Mackie on determinate and indeterminate dispensers, *The Cement of the Universe* (Oxford: Clarendon Press, 1971).
- 35 Taken from promotional brochures provided by slot machine manufacturers, particularly the Quick Track Gaming Company.
- 36 "MGM," *Casino Magazine*, Nov. 4, 2002.
- 37 Some of the leading Internet casinos (2003): City Club; Casinos Las Vegas; Casino King; Casino Gold; Omni Casino; Slotland; Three Diamonds; One on One Online; Be the Dealer. Some are *games* to download, or to start your own gaming business: Play Vegas in Your Own Home; Real Arcade. An attached quote from Steve Wynn (2001): "The only way to make money in a casino is to own one."
- 38 "Stock Focus: Slot Machine Companies," *Forbes*, April 2003.
- 39 *Ibid.*
- 40 See Stephan Oettermann, *The Panorama; History of a Mass Medium*, tr. D. Schneider (New York Zone Books, 1997; orig. 1980). However, I have not encountered much direct use of nineteenth-century panoramas or cycloramas in Las Vegas design, except in the immersive positioning of the viewer—slightly higher than the illusion in the round (i.e., Luxor; inside the Showcase on the Strip, or (as Venturi duck), the Coca

- Cola Store (shaped like a Coke outside, similar to old panorama buildings]). The amount of literal appropriation of Baroque perspective “awry” (1550–1780) is staggering.
- 41 Alan Hess, *Viva Las Vegas* (New York: Chronicle Books, 1993). Hess called the view south of the Stardust (since imploded) an “architectural Manhattan.”
  - 42 The odd imagery about implosion indicates how it fits into the new Vegas as well, as part of the theater of street drama. The Sands going down is described as a “fading lady about to be imploded,” ten seconds and gone. Shaul McKimien, “From Rat Pack to Rubble,” *Las Vegas Review-Journal*, Nov. 27, 1996.
  - 43 Interview with expert witness for Tri-M, Dave Hullfish Bailey, April 2003. Bailey is an artist and writer.
  - 44 *Ibid.*
  - 45 One term for this “impulse” that I find particularly curious is “controlled stimulation,” by Gordon Moody, in a keynote speech for a conference in London on Risk and Gambling. “Perspectives on Gambling,” *Gaming and Commercial Gaming: Essays in Business, Economics, Philosophy and Science*, ed. William Eadington and Judy Cornelius (Reno: Institute for the Study of Gambling and Commercial Gaming, 1991), 446–447. Consider how difficult it may be to “script” (design, advertising, distraction) this balance between control and stimulation.
  - 46 *Lively pedestrian and sidewalk life*: a phrase used standardly in brochures and on websites sponsored by Las Vegas interests.
  - 47 The easement, followed by quit-claim. deed, allowing Treasure Island to privatize adjacent sidewalks was granted in 1995 by the Nevada attorney general, then resisted by a county supervisor, Don Schlesinger. Without the process of public hearings, this easement allowed the Mirage Corporation to control approximately \$3.5 of public street. (Chuck Gardner, “Casino II: Las Vegas in the 90’s,” *Nevada Index*, April 1998.).
  - 48 Special Collections, University of Nevada at Las Vegas Library.
  - 49 Trompe l’oeil can be multiple perspective as well, in Baroque palaces and churches; but in Vegas, it tends to be narrower, perhaps influenced by the trompe l’oeil of nineteenth-century America and since—far more intimate, less about englobed immersion.
  - 50 The first manifesto for Jerde was Horton Plaza. Its effects were modeled on Italian bill towns and allow for a layered, almost ant farm–like relief, one stretch sedimented upon the other. Jerde also mentions “anamorphic”

- scenes he saw in Italy while he was planning the Fremont Experience, but was apparently unable to incorporate as many of them as he would have wanted.
- 51 Ironically enough, Disney could not build casinos (which are much more profitable than theme parks), because gambling would mar the child-friendly Disney brand. However, various design and special-effects arrangements have been made with casinos and Disney, behind the scenes (including cruise ships). And some imagineers have moved on to casino work.
  - 52 Arnie Williams, “Looking Into a Dry Lake: Uncovering the Women’s View of Las Vegas, a Film journal,” *The Grit Beneath the Glitter*, 294.
  - 53 Venturi has said recently that he probably learned more from Los Angeles than Las Vegas. He has put up more buildings in L.A. than in Vegas since he co-wrote *Learning from Las Vegas* (1974). The neon city of circulation that this book described has been replaced by the next stage of the Electronic Baroque, the metropolitanized suburb, the city (not the strip) as special effect.

## The Disappearing Nineties: Jerde Cities

- 1 Books on the nineties Jerde phenomenon: *The Jerde Partnership International* (Milano: L’Arca, 1998); Frances Anderton, ed. *You Are There: The Jerde Partnership International* (London: Phaidon, 1999), essay by Norman M. Klein; Cathie Gandel, *Jon Jerde in Japan: Designing the Spaces Between* (San Francisco: Balcony Press, 2000).
- 2 Filippo Baldinucci, *The Life of Bernini*, tr. K. Engass (University Park Pennsylvania State University Press, 1966), 40.
- 3 Jose Antonio Moravall, *The Culture of the Baroque: Analysis of a Historical Structure*, tr. T. Cochran (Minneapolis: University of Minnesota Press, 1986; orig. in Spanish, 1975), 82ff.
- 4 I realize that this does not fit the Habermasian definition of the public sphere. For an earlier reading of the problem, see Thomas Crow, *Painters and Public Life in Eighteenth Century Paris* (New Haven: Yale University Press, 1985).
- 5 Globalized corporate interests can be equated with “corporate bodies” in early modern Europe: the various mercantilist, clerical, and atavistic medieval institutions that made that era as much a political palimpsest as

- our own. The extranational power of many of these corporate bodies also be seen as an instructive parallel. (2022: I have since gone on to a fifteen project examining precisely such parallels, for *Archaeologies of the Present: The Dismantling the American Psyche*. Strange to me how much of this problem was already percolating in *The Vatican to Vegas*.
- 6 Another ironic term—*absolute* also suggests the French term *absolutist*, of course, as if Jerde’s Bellagio in Las Vegas were a kind of palace to the illusion of absolute power, a Versailles for the imperial pleasure of gaming (or the flamboyant owner, Steve Wynn.
  - 7 As I mention earlier in this book, possibly the most famous of these handbooks was written by Fra Andrea Pozzo, *Perspectiva Pictorum* (1693–1698). See chapters on Perspective Awry, Immersion.
  - 8 Mark Gottdiener, *The Theming of America: Dreams, Visions and Commercial Spaces* (Boulder: Westview Press, 1997), 120.

### Easy Credit: Driving Two Hundred Years a Day in Los Angeles

- 1 Theories on Global English generated very much out of subaltern studies, even the study of the British Commonwealth, particularly the writings of Brach B. Kachru: i.e., Kachru, ed. *The Other Tongue: English Across Cultures* (Urbana: University of Illinois Press, 1982, new ed. 1992); *The Indianization of English*, (New Delhi: Oxford University Press, 1986); *The Alchemy of English* (Urbana: University of Illinois Press, 1990). This transition from subaltern to what I am calling “global L.A.” indeed is a clear indication of the shift from postcolonialism to transnational models where the home country is also colonized. That is: former British colonies, as opposed to consumer markets that support English. The change also reflects the shift in global business, to include the growth of Asian economic blocs, and the massive Asian immigration to the U.S. after the end of the Vietnam War, particularly after 1980.

Most of all, the Global English canon is beginning to exist increasingly on the Web, in a variety of sites, many disappearing, or recoded, or simply business sites, particularly from Asia and Europe *even* more than the U.S., of course. See also, bibliography on Web: International English and Language Policy.

As Rita Raley, specialist in global linguistics explained (by e-mail): “Global English promises to sever language from culture and nation” (1999).

Among nations that reached independence during the Cold War, English became a badge for investors, and by inference Los Angeles the sign of fashion. Therefore, English is the dominant language in over sixty countries now, and routinely in evidence in a dozen more. Citizens who possess business English presumably join a global elite with disposable income they become—theoretically—the cream of the world economy. They can buy the software, the toys, the package tours. They know the glib argot of the airline industry, of petrodollars, global media.

- 2 See *Forever Barbie*. In 1995, I was “barbified,” given a large packet of Barbie studies documents, to be interviewed for a documentary. As a special effect, I was blue-screened next to a life-size model of Barbie, who would be anorexic and could never stand or walk. Recently, as Barbie sales have slipped, she is being redesigned for the first time in decades.

- 3 Reviewing the “L.A. School”: The L.A. School emerged by the late eighties essentially, identified most with the writings of Davis and Soja, responding to scholars linked specifically to the critique of “internationalization” after 1980: Frederick Jameson (of course), David Harvey, Gayatri Spivak. A sampling of other studies about L.A. 1988–1994: John McPhee, *Assembling California* (New York Noonday Press, 1994); Allen J. Scott, *Technopolis: High Technology Industry and Regional Development in Southern California* (Berkeley: University of Calif. Press, 1993); Michael Sorkin, ed. *Variations on a Theme Park: The New American City and the End of Public Space* (New York: Noonday Press, 1992), *Post-Suburban California: The Transformation of Orange County Since World War II* (Los Angeles: University of California Press, 1991); Joel Garreau, *Edge City: Life on the New Frontier* (New York: Doubleday, 1991). Also travel books essentially on international LA.: Philip Rieff, *Los Angeles: Capital of the Third World* (1991). There was another category as well: Many historical studies from the nineties—like the one I edited with Martin Schiesl (*Twentieth Century Los Angeles*, 1990)—essentially put the issues of internationalization aside, and commented instead on neighborhood crises: institutional life (police); urban planning; ethnic history; infrastructural crises (freeways, subways, growing density).

In other words, the range associated with the eighties “L.A. School” is wide. However, by 1990, most L.A. scholars and critics I met assumed that a vast urban shock was coming. I even remember a meeting at KCET of L.A. specialists, who all advised a show on Watts for 1990, because each had sensed that the next “rebellion” was imminent in some way. The producer there merely announced, with Pickwickian condescension, that

so many TV stations would run twenty-fifth anniversary shows in 1990. He thought Watts coverage would go cold by the fall season.

By 1984, before the uprising delivered a wakeup call, new ways to worry about a city were too soft—linked philosophically to international media, i.e. hyperrealism, simulation, broken sign systems, panopticism; and endlessly the *flâneur*. A late Cold War comfort zone led to gentler warning about growing labor inequality, more Reaganite class restrictions. There was already, however, an emerging sense that capitalism was dissolving underneath. This collapse of the (dollar?) sign was paralleled by the collapse of the city. But all these warnings and evasions add up to one stage in a restructuring that by 2003 has achieved far more disharmony than solidity, and will harden further, like bread into breadcrumbs, over the next decades.

On the L.A. School of Architecture in the eighties, a survey: Aaron Betsky, John Chase, Leon Whiteson, *Experimental Architecture in Los Angeles* (New York: Rizzoli, 1990.) Among pamphlets, Douglas Suisman, *Los Angeles Boulevard: Eight Rays of the Body Public* (Los Angeles: Los Angeles Forum for Architecture and Urban Design, 1989). Response of the eighties school to uprising of 1992: Charles Jencks, *Heteropolis: Los Angeles, the Riots and the Strange Beauty of Hetero-Architecture* (London: Academy Editions, Ernst and Sohn, 1993). To that—beside Mike Davis—a few of the dozens of urbanists who tried to toughen the direction of 1985–92 LA Studies: Rodolfo Acuna, George Sanchez, Edward Soja, Michael Dear, William Deverell, Greg Hise, Leonard Pitt.

- 4 Sze Tsun Leong, “Readings of the Alternated Landscape,” in *Slow Space*, ed. Michael Bell, Sze Tsun Leong (New York: The Monacelli Press, 1998), 205. On the aesthetics or erasure mutability in what I call the Electronic Baroque: Mario Gandelsonas, *X-Urbanism: Architecture and the American City* (New Haven: Princeton University Press, 1999), 109. Also, he architectural histories by Anthony Vidler (*The Architectural Uncanny; Warped Space*).
- 5 Even Deleuze finds the term *imaginary* difficult to apply to cinema. He writes: “The imaginary is a very complicated notion because it marks the intersection (of the real and the unreal) ... The two terms don’t become interchangeable, they remain distinct, but the distinction between them keeps changing round ... This is why I don’t attach much importance to the notion of the imaginary. It depends, in the first place, on a crystallization, physical, chemical or psychical; it defines nothing, but is defined

by the crystal-image as a circuit of exchanges ..." "Doubts About the Imaginary," in Gilles Deleuze, *Negotiations, 1972–1990*, tr. M. Joughin (New York: Columbia University Press, 1995; orig. 1990), 66. Another mode of crystallization/ exchange is the marketing and licensing of movie images. However, the fictional, ontological crisis that memory imagos suggest never goes away. The social imaginary provides us only with tableaux vivants—frozen poses. These clouded movie stills are filtered badly inside our collective memory. To locate them does not replicate or subdue them. The imaginary is indeed the chiaroscuro in all social research; yet its trace in our global economy is unmistakable.

Another possible term might be Bourdieu's notion of *symbolic violence*, in *The Language of Symbolic Power, or The Logic of Practice*, and summarized very precisely by Richard Jenkins, *Pierre Bourdieu* (London: Routledge, 1992), 66ff. I could possibly build an argument around "symbolic violence"—imaginary violence in special-effects cinema, for example. I might arrive at that point of camouflage where power is built into representation. That might suit the core of Bourdieu's argument, And yet, here too I sense the fictional turn that I am taking with my evidence, merely to find some epistemological way to grasp an ontological blur.

In short, then, I would define the problem in this way: Global L.A., like cinema and media themselves, relies on what the Surrealists called "the marvelous," or what the Baroque identified as "wonder"—and the Renaissance as the effect of *spectaculo*. That sense of simulation is a plot point, a chiaroscuro that is noticed, but remains difficult to define in classical, positivist terms, even in post-structural terms. It is indeed an article of the Electronic Baroque, as I call it, the marketing of the fictive, in an economy where entertainment has merged with banking, war, auto production, many unlikely partners.

Also, during the late nineties, the Baudrillardian and Deleuzian applications to urban theory were vast, of course. Baudrillardian architectural discourse is reviewed in Neil Leach, *The Anaesthetics of Architecture* (Cambridge: MIT Press, 1999), and Deleuzian architectural theory by Greg Lynn, *Folds, Bodies and Blobs* (Bruxelles: La Lettre Volée, 1998), and John Rajchman, *Constructions* (Cambridge: MIT Press, 1998).

- 6 *The Chase and the Labyrinth*, shown at the Kuentlerhaus in Stuttgart (June 1999), and at the Witte de Witt in Rotterdam (Jan. 2000).

- 7 Imaginary Holland (workshop and show at the Witte de Witt, February–April, 1999; workshop by Norman Klein: Bedel, Basauri, Bruijine, Chu, Paalman, Wust).
- 8 See OnRamp at various internet sites. Jessica Irish and Stephen Metts were the directors and designers. Its main activities went down in 2004, after supporting a number of community media projects. Professor Irish now teaches at the New School.
- 9 Norman M. Klein (writer, co-director), Rosemary Cornelia (co-director), Andreas Kratky (co-director), *Bleeding Through Layers of Los Angeles, 1920–86* (Los Angeles and Karlsruhe: the Labyrinth Project at the Annenberg Center/USC; The Center for Art and Media [MA]; 2003). Also in a number of art exhibitions, compressed for the large screen, or compressed to fit in a DVD-ROM. New edition: *Norman Klein's Bleeding Through ... Layers of Los Angeles ... Twenty Years Later*. Editor Jens Martin Gurr (Transcript, 2022).
- 10 *The Global L.A. Sound Pavilion*, at the Kuenstlerhaus in Stuttgart, 1999.
- 11 Jacques Attali, *Noise: The Political Economy of Music* (Minneapolis: Univ. of Minnesota Press, 1985), 128–130.
- 12 For example, Saskia Sassen, *Globalization and Its Discontents* (New York: The New Press, 1998).
- 13 The Limits of statistics: Countless articles cite the growth in crime from the mid-eighties forward, and the increase in Japanese investments in L.A. (particularly downtown). These trends reverse by the mid-nineties: Japan's stock market crashes; L.A. crime statistics on paper go down. One might say that 1992 was not so much the beginning of the collapse of southern California as it was the end of a cycle of transition, toward the next stage, a rather Hegelian point of view; I realize, but that appears to be the case. However, the shocks in poor neighborhoods have not abated as of 1999, now buried beneath new concerns—the push for sports stadiums and metro suburban expansion. For poor areas, from Pico Union near downtown to Pico in Santa Monica, the sheer neglect continues (also Echo Park, eastern Hollywood, the northern San Fernando Valley, Eagle Rock/Huntington Park, South Central, Santa Ana). As I often say to students, greed is relentless but never efficient. It only looks efficient on the surface.  
The “new stage” is riddled with contradictions that will manifest, from poverty to horrific traffic to “toxic” schools, like the Belmont fiasco, ironically on the “empty” site that I identify in *The History of Forgetting* (1997). The new \$200 million learning center, now more than half completed, has

toxic gases beneath it, left over from old oil wells, and is now uninhabitable and spreading what some sources call “deadly fumes” even faster to neighborhoods northwest of downtown. The school district has restricted comment for the moment, and set up a committee to investigate what has become a symbolic scandal for the new booster cycle in L.A., a symptom of business as usual, of erasure and distraction for the new millennium.

As of July 24, 1999: Cleanup for the Belmont Learning site would cost over \$16 million. Abandoning it would run over \$100 million. Even the temporary weather shield on the site—while the problem is studied—will exceed \$2 million. No other school in L.A.’s history has ever undergone this kind of crisis. (Greg Gittrich, “Belmont Fix Would Be First of Its Kind,” *Daily News*, July 24, 2002, 1.) The *Daily News* has pushed this story in at least twenty-five articles in 1998–1999; and the *L.A. Times* often as well, on B1, July 24, 1999, etc.

- 14 We also must remember that there is considerable corroboration for much of what Davis pointed out in *The Ecology of Fear*. For example, the continuing crisis over Santa Monica Mountains projects exceeding the county plan. (Patrick McGreevy, “Reform of Land-Use Approval Process Urged,” *L.A. Times*, December 29, 1998, B1.)
- 15 By *ergonomic*, I refer to the Internet and digitopoly, to the world of remote controls that in fact leave the citizen with fewer controls over the political economy. It is the *nineties* victory of libertarianism, particularly in the Silicon Valley, where software and cyberspace are encoded against any intrusion by government. indeed, information and memory become ergonomic, in a primitive capitalist model that excludes government, even governance. Instead, we get easy-listening controls. The omnipotent belief in cyber-capitalism was as close to Adam Smith’s “invisible hand” as any area of the global economy. Indeed, we were back to 1848, if not 1248. But TV reception did improve, and the buttons on our dashboard keep us better insulated than ever before.
- 16 See William Fulton, *The Reluctant Metropolis: The Politics of Urban Growth in Los Angeles* (Point Arena: Solaro Press Books, 1997), 314–332. Las Vegas seems necessary in historical analyses of what I call the Metropolitan Suburb. Fulton’s is one of the clearer studies of how urban planning helped lead to metro suburbs in southern California. See also Mike Davis and Hal Rothman, eds., *The Grit Beneath the Glitter: Tales from the Real Las Vegas* (Berkeley: University of California Press, 2002).

- 17 On cities of 1900: Much has been written about the obsessive separations between public (male) and private (female) spaces, and on the intense systems of visuality that somehow give birth to cinema. However, the polysemic, polyglot, and oral city continue as well in 1900 (e.g., new research by Sharon Marcus and Marguerite Bistis, among others). Indeed, urban history in general often isolates the boulevards from the neighborhoods. But if we include both, back then or today, a composite emerges that helps explain the mess we are as of 2000—an obsession with boulevard gentility and neglect of fundamental infrastructure, a mystification of the rhythm of consumer urban spaces that ignores the daily struggle and pleasures of many if not most city dwellers. The *flâneur* is also a tourist, perhaps what I call tourists in their own city, a different version of what Baudelaire meant by the Orient in Europe. *Luxe, calme et volupté* (that repeated phrase from Baudelaire) suggests deluxe consumerism steadied but, at the same time, charged with desire, an apt warning for our era as much as for his.
- 18 The term *borderless* dates mostly from 1991, however: Kenichi Ohmae, *The Borderless World: Power and Strategy in the Interlocked Economy* (New York: Harper Books, 1991; revised, 1999). See also Kim Moody, *Workers in a Borderless World* (London: Verso Books, 1997)
- 19 Roger Keil, *Los Angeles* (New York: Wiley and Sons, 1998), 55, 96. On 231: “This new space ... i.e. space that is Los Angeles ... is sold to us as a postindustrial, American and nonurban. In reality; it is hyperindustrialized, completely globalized and pervasively urbanized.” See also Allen J. Scott, Edward Soja, *The City: Los Angeles and Urban Theory at the End of the Twentieth Century* (Los Angeles: University of California Press, 1996).
- 20 Mario Gandelsonas, *X-Urbanism: Architecture and the American City* (New Haven: Princeton University Press, 1999), 109.
- 21 Rick Orlov, “Council Endorses Upgrade for Mall,” *Daily News of Los Angeles*, Dec. 9, 1998, 4.
- 22 Fundamentally, as in fundamentalism.

### **Bush as Baroque Special Effects: (December 23, 2000)**

- 1 Parts of this essay appeared on December 23, 2000, as an article for the *Frankfurter Rundschau*, entitled “Bush Barok?”
- 2 Evelyn Brown, “Modeling World Turned Upside Down with New Simulation Software,” <https://www.anl.gov/OPA> (2002).

- 3 *Ibid.*
- 4 *Ibid.*
- 5 “On 9/11, CIA was Running Simulation of a Plane Crashing into a Building,” Associated Press, August 22, 2002; also <https://www.thememoryhole.org/911/cia-simulation>.
- 6 In 1972, during an International Conference on Computer communications, an employee from DARPA named Larry Roberts demonstrated ARPANET, installed as a packet switch and a Terminal Interface Processor (TIP) in the basement of the Washington Hilton Hotel. The public was invited to use Arpanet, running application throughout the U.S. (interview with Vinton Cerf, <https://www.internevalley.com/intval.html>). From there, the early model evolved into what became the Internet.
- 7 Noosphere, a typical linkage between electric media, the computer, and identity: McLuhan referring to Teilhard de Chardin. See: *Essays by Marshall McLuhan*, ed. Michel A. Moos (Amsterdam: Overseas Publishers Association, OPA, 1997; orig. 1980).
- 8 See Marshall McLuhan, *The Gutenberg Galaxy* (Toronto: University of Toronto, 1962).
- 9 Marshall McLuhan, “Laws of the Media,” *Marshall McLuhan: The Man and His Message* (Golden, Colorado: Fulcrum, Inc., 1989), 209.
- 10 For summary of their arguments on implosion, and bibliography: Gary Genesco, *McLuhan and Baudrillard; The Masters of Implosion* (London: Routledge, 1999).
- 11 Paul Benedetti and Nancy DeHart, eds., *Forward Through the Rearview Mirror: Reflections on and by Marshall McLuhan* (Cambridge: MIT Press, 1997).
- 12 V.H. Blix, *You Are a Computer: Cybernetics in Everyday Life* (New York: Emerson Books, 1967), 69.
- 13 *Essential McLuhan*, ed. Eric McLuhan and Frank Zingrone (New York: Basic Books, 1995). Also in his *Playboy* interview: “Acoustic space is organic and integral, perceived through the simultaneous interplay of all the senses; whereas ‘rational’ or pictorial space is uniform, sequential and continuous and creates a closed world with none of the rich resonance of the tribal echoland.”
- 14 Marshall and Eric McLuhan, *Laws of Media: The New Science* (Toronto: University of Toronto Press, 1988), 59
- 15 For example, in January 2000, Daniel Schacter, a leading cognitive psychologist, delivered a wonderfully ironic lecture in my class (on memory and forgetting). He kept showing slides of cross sections of human

brains, always two at a time, two painted cauliflowers (often nearly, subtly identical). Meanwhile, he discussed patients who suffered from short-term memory loss. To humanize his practice, he used to go golfing with a patient unable to remember more than fifteen minutes at a time. He would study the patient teeing off over and over again, each time forgetting where the ball landed.

Finally, a student asked why there were two brains on each slide, and why both had almost identical dyes, like wine marinade. Schacter explained very directly, straight-up, no alliteration, that the brain fundamentally did not and does not care about lies. One brain in the slide had problems with memory; the other brain was normal. However, they both looked almost the same. Thus, hormonally, the brain is no moralist; it remains convinced as long as you are convinced, even if you're crazy. This biological mechanism keeps the brain efficient, because it can erase and distract. But surely a brain so independently minded must be a symptom of our madness today. Those synaptic bundles inside our head—that lump we call the brain—apparently refuses to chemically notice lies; any more than our pets do. But this special effect just so happens to resemble our collective madness nowadays. I've noticed that scientific maps of our physical brain often resemble what is new in our madness. Thus, as I end the journey, a question: how can you simulate what is undetectable? This mind/body labyrinth must be "God's" scripted space. Every generation, changes in the playing demand renewed faith (collusion).

16 See Würzburg (chapter 2).