Notes

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 Edington 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 Ecstacy 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-sacrelized" 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 Lundens, 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 Ndalianis 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 (Ndalianis 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, *Ouevres completes;* 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 "*industrieuse charrette*"*;* more on the entendres of the Baroque machine as special effects as we proceed.

3 Alcover, ibid., "Analyse," CLXXXIX–CXCIll. 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 Furttenbach,* 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: Scenotecnic Marchigiani* (Edizioni Denn'Ente Artistico Culturale di Pesaro, 1952). Also: Dunbar Ogden, *The Italian Baroque Stage* (Berekely: 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 francais de 1600 à 1657* (Paris, 1933), 151–153. See also: Per Bjurstrom, *Giacomo Torelli and Baroque Stage Design* (Stockholm: Alrnqvist 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 Théatricale* (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'Historie du Theatre* (Paris: Hachette, 1893); again, Per Bjurstrom, *Giacomo Torelli and Baroque Stage Design;* as well as studies of Inigo Jones, of Philippe Jacques Loutherbourg (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 Props). 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 asynchrontic. 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 flir-

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 Filipo Picinellis, 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 Matte 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 Furttenbach 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: Esplace 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 Delete, *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 Zizek, *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. Prom *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 Johnson, 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), innumerous 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 theatricals, 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 agitprop. First, agitprop was coined by Bolsheviks during War Communism (circa 1919–1920). Since1968, the term has resurfaced, often as adjective, frequently to suggest leftist ideology gone too fax 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 grie "—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 Borro*mini *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.

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 *Iconoclash: 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 the *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 *(honnêttes 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://wvvw.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 mystifed 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 Augars, 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.zoebeloff.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

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 engrammed 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.ielcelt).

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.eduivictorian7dickens). 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 "Procustan 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'Acierno 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).

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 "invente " 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).

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).

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 Rosenthiehl, "The *Dodecadecale,* or in Praise of Heuristics," tr. T Repenssek, *October* 26 (Fall 1983; orig. 1982), 25. At the College de France, Barthes's last seminar before his death was on labyrinths, co-taught with

Rosenthiehl. 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.lycaeun.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 lacework 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 Cbtcheglov 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, *Germinal 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 architettonici 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 Brocket, *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 Worder; 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 Cybernanthrope: 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 procèdes curieux des arts, des tours recréatifs et subtils de la magic blanche, et des dé-

couvertes ingenieuses 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'electricité," "*le spectacle étonnant*." See also Jacquet's *Precis de l'electricité* (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 Noveau 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 Loutherbourg (1740–1812), the French painter turned theatrical designer who generated early moving panoramas, precinematic 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 Lift* (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.gavroche.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 Trevathik: 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 a 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'Aeronaute,* 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* (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 Electrotype; Wollaston's platinum microwire; Newtonian optics; ultraviolet rays; Babbage's Difference Engine; the Daguerrotype; the steamboat; early experiments in freezing (https://www.eserver.orgibooksipoe).

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-3P0, 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.bigred hair.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 "Reproducing 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, *Panoramania! 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, *Poblicianos 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, 1892, 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 *Panoramania,* 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 *Fantaissistes:* nineteenth-century French term for illustrators who specialized in imagining the fanciful.
5 Hugh Ferris, *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 aesthecized 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 Meliès'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 Al 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 Vitascope, 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 011ie 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 handmade 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: paranoic 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," C'Theory,* 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; org. 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 antispatial, 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 Wynne* (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* Californ*ia* (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 *flaneur*. 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 asethetics 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 violenc "—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 Kuenstlerhaus 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, Bruijne, 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 down town). 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 LA., 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 *flaneur* 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, calm 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 Marshal McLuhan*, ed. Michel A. Moos (Amsterdam: Oversears 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).