2. Perspective Awry

Every mind is omniscient but confused.
–Leibniz[1]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Wandering (Immersion): Multiplied Views Under a Curved Ceiling

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

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

Pausing: Single View Framed

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

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

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

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

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

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

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

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

Drifting or Pausing

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

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

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

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

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

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

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

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

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

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

Trompe L'Oeil[19]

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

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

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

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

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

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

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

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

As Baudrillard wrote in 1988: "(With) trompe l'oeil, whether a mirror or painting, we are bewitched by the spell of the missing dimension. It is the latter that establishes the space of seduction and becomes a source of vertigo."[22]

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

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

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

> Transformational decors, painted skies, all kinds of trompe l'oeil…adorn the walls; the monad has furniture and objects only in trompe l'oeil.
> —Gilles Deleuze[23]

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

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

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

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

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

Political Anamorphosis: News From 2010

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

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

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

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

What Comes Next

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