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Back to the Drawing Board: Architecture, Sculpture, and the Digital Image

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Walter Benjamin remarks at the conclusion of his classic "Kunstwerk" essay that "architecture has always represented the prototype of a work of art the reception of which is consummated by a collectivity in a state of distraction." (239) Count me among that distracted collectivity that recognizes, with Benjamin, that architecture's history "is more ancient than that of any other art," and that it is a "living force" that has importance in "every attempt to comprehend the relationship of the masses to art," at the same time that I have to confess a a fair amount of ignorance about the inner world of professional architectural practice. I write here as a consumer, a spectator and user of architecture, not as an expert.[1]

The fundamental question asked at this symposium is what the effects of digital imaging have been on the production and reception of architecture. One hears on every side grand, utopian claims about the unlimited possibilities offered by "paperless studios" and direct translation of computer design into the production of materials and modular units for construction. It seems, if one can trust the architecture magazines, that we have entered a brave new world where everything is possible and nothing is out of bounds: if it can be imagined, and "imagineered" on a computer terminal, then it can be built.

I think there are some good reasons for being skeptical about the more euphoric claims that surround architecture in the so-called digital age. Although it's clear that the computer has made an enormous difference in certain aspects of architectural design and construction, it may not always be the emancipatory, progressive difference that it is often portrayed to be. Liberation from the material resistance of a medium may lead to a kind of architectural flatulence, a throwing up of ornamental effects and spectacle as nothing more than a manner or automatism of conspicuous consumption. I am reminded of the moment in the evolution of electronic music when the "classic studio" of waveform generators and manually controlled tape decks was replaced by the Moog Synthesizer, which made all sorts of pre-programmed "special effects" available at the touch of a key, a breakthrough which had the effect of producing a great deal of predictable, cliché-ridden sound-effects. Sometimes the resistance of a medium is a good thing, and may be (as copper-plate engraving once showed us) the very condition of certain kinds of hard-won virtuosity and inventiveness.

So: my aim here will be to slow down the discussion a bit, and to urge a more patient analysis of claims that we live in a "digital age," and that certain consequences flow ineluctably from this supposed fact. Since I speak as a non-expert, and an outsider to the professional concerns of this group, I offer these comments with considerable hesitation, and subject to correction. My own expertise is in the areas of image theory, media, and visual culture. My strategy, therefore, will be to reflect on some notable features of spectacular, attention-getting architecture in our time, especially as it engages with two closely related media, the graphic and sculptural arts. These two media seem necessarily connected to the problem of architecture, if only because, on the one hand, so much contemporary architecture seems to aspire to the condition of sculpture, and on the other, architecture "proper" is primarily a graphic, imaging activity, and not the actual activity of erecting buildings. Even before the onset of the digital image, Thomas Creighton, the editor of *Progressive Architecture*, could argue that a "new sensualism" in architecture was being driven by the model of sculpture, with abandonment of "restraint" and its freedom to produce forms "that can be warped and twisted at will."[2] "This is not the application of sculpture to architecture," argued Creighton, "but rather the handling of architecture as sculpture."

On the other flank of architectural practice is drawing and draughtsmanship, now undergoing the technical transformation summed up by the concept of the digital image and the techniques of Computer Aided Drawing (CAD). But what is the digital image? The easiest answer is: an image that can be produced, manipulated, stored, and retrieved by a computer. But what does this really mean? How does this affect the quality of the image, any image? Is it the easy manipulatibility of the image? The possibility of morphing and transforming it in innumerable ways? Or is it the portability of the image, the ease with which it can be transmitted instantaneously around the globe? Is it the metadata that accompanies the image, making it a self-archiving bundle of information that carries with it not only the graphic analog content, but a string of second-order information about its provenance and modifications? All these are undoubtedly momen-

tous changes in the way images function for us, but it is important to keep in mind one equally important way in which images have not changed one bit under the digital regime: they are still images *for us*, for embodied human beings with standard sensory and perceptual equipment. It doesn't matter whether they are representational or abstract, artistic or popular, technoscientific displays or children's drawings. At the end of the day, they are still dense, iconic signs that acquire their meaning within the framework of an analogical, not a digital code. (In a more extended discussion we would have to question in fact whether the analogical sign is "coded" at all, recalling Roland Barthes' famous observation that photography produces "messages without a code").[3] No matter how many computational transformations it goes through inside a computer, the digital image is, at the beginning and end of the day, an *image*, an analog presentation. Unless we are programmers, we are not really interested in the digits in the digital image. We are interested in the analogical input and output, the image, as a sensuous presentation that employs an infinitely gradated set of signs, marks, and colors (or, for that matter, sounds, tones, beats). Digitization betrays the same ineluctable tendency toward the "return of the analog" in the realm of both visual and sound images.[4]

So the phrase "digital image" is in a very precise sense a kind of oxymoron: insofar as an image is *perceived* as digital, it is not an image at all but an array of arbitrary symbolic elements, alphanumeric signs that belong to a finite set of rigorously differentiated characters. At the simplest level, the digital is merely a string of ones and zeros that forms a statement or action in a machine language; this is not an image, but a string of ones and zeros that can be translated into an image. The image is not digital; it is formed by, carried by, translated into digits, but it is not itself digital. One can see this clearly in the climactic scene of the mythic cinematic treatment of the digital age, *The Matrix*. When Neo sees through the veil of illusory virtual images to the underlying digital reality, he understands that all those bodies and buildings were nothing but a flux of numbers and letters (fig. 1). But at the moment of this understanding there is a ghostly return of the displaced illusion in the form of the analog images of the agents, and the spectral traces of their illusory bullets. This is also the return of the image as such, the analog sign, the cinematic sign, that can never go all the way over to the digital without ceasing to be an image.[5]

This is also why we have to admit that, from a phenomenological standpoint that pays attention to the perceptual flutter of digital and analogic codes, there have been what we now call digital images well before the invention of the computer or the binary code. Images have been digitized since Australian Aboriginal painters developed a binary dot and line vocabulary of graphic characters suitable for sand painting. Grains of sand are the predecessors of pixels, with their indefinitely expanded reservoir of finitely differentiated elements. In a similar way, the warp and woof of weaving processes the image-appearance through a grid of binary choices. Digitization of the image is a consistent technical feature from mosaic tile to the mezzotint to the Ben Day dots of newspaper photograph. But when we look at the graphic image, we do not look—at least for a moment—at the grains of sand, or the threads, tiles, or dots or pixels: we look at the image, the analog sign that magically appears out of the digital matrix. This is the duck-rabbit effect of the digital image in its extended sense.

It is important, then, that we exert some pressure on the commonplace notion that we live in a "digital age," as if digitization and binary codes were unknown before the invention of the Turing Machine. Right alongside the Turing Machine is an equally powerful invention/discovery: the architecture of the DNA molecule. The technical impact of the computer is not simply its capacity to reduce everything to ones and zeros, but its equally powerful capacity to *unreduce* or expand those ones and zeros to analog appearances. The computer does not represent a "victory of the digital" but a new mechanism for coordinating the digital and the analog. And it is crucial to stress this point at the level of tactility as well as visuality: a moment's reflection on the role of the human *hand* in relation to the computer should remind us of Bill Brown's tellingly non-redundant aphorism: "the digital age is the *digital* age," the era of carpal tunnel syndrome and ergonomic keyboards. Obsessive text messagers live in the age of the *thumb*, and of a generation that is "all thumbs." We have invented in our time new forms of clumsiness along with new skill sets, automatisms, and habitual subroutines. What Friedrich Kittler has predicted as a "general digitization of channels and information" that will "erase the differences among individual media" has in fact produced just the opposite: a

Fig. 1: Film still from "The Matrix"

new Tower of Babel populated by machines that cannot communicate with other machines.[6] As is well known, for any two machines, a third is required to translate, adapt, or coordinate them. How many useless adapters and power transformers are cluttering your utility closet? How many remote controls that are supposed to be programmable to exert control (remotely) over other remote controls. How long does it take before the sense of control gives way to its opposite? How long before the copy and repeat functions go mad and generate a virus or autoimmune disorder?

I have been speaking of machines, but (as the metaphor of the virus suggests) they are really stalking horses for something more like artificial life forms—robots, cyborgs, and complex autopoetic systems as large as the internet itself. If the digital age is the age of calculation, control, and programmability, it must be recognized equally as the age of incalculability, loss of control, and unprogrammability. That is why, right alongside the rhetoric of cybernetics, the "science of control," we are encountering the uncanny return of the archaic language of vitalism and animism in contemporary image-theory. The digital age is the convergence of technoscience with magic—with new forms of totemism, fetishism, and idolatry, with what Bruno Latour has called "factishes." The technoscientific dominant of our time, then, is not simply cybernetics, but *biocybernetics*, the twin revolutions of information and life. The cultural icons of this double revolution are the computer and the clone, and no doubt, the biomorphic forms of the architectural spaces they inhabit.

One may question, of course, whether in the age of what has been called the "post-medium condition," when all the media are mixed, hybrid, and remediated by digital technologies, there really is any thing such as a distinct medium. Hasn't architecture always been a hybrid, mixed medium, and hasn't it now gone completely virtual, existing as much in speculative, notional and graphic or modular form as it does in actual building? And do not the buildings reflect this virtualization and liquidation, with the seemingly absolute malleablility of shapes, materials, surfaces, and spaces? And does this not make for a convergence of architecture, so that structures like Frank Gehry's Bilbao Museum, or Daniel Liebeskind's Jewish Museum in Berlin become a kind of expanded field of sculptural gestures, while Peter Eisenmann's Holocaust Memorial goes all the way over to the field of public sculpture, but in this case as *plaza*, a place of labyrinthine chasms and rolling contours, a landscape of monolithic gravestones, a social space of mourning and sun-bathing, solemn contemplation and frivolous hide and seek.

As for drawing, with its connotations of manual production, primal "first steps" toward the fabrication of three-dimensional, material objects, or its secondary role as the trace, the image "drawn after" objects made by nature or art: drawing remains closest to the center of the vortex of image production, the "fissure" in which Henri Focillon saw "crowds of images aspiring to birth."[7] Drawing is the cross-roads of architecture and sculpture, emanating from and returning to the body. It remains linked directly to the hand/ eye circuit, the scopic drive, and the Imaginary, even in the sphere of digital imaging and MacPaint. Think of Saul Steinberg's world-making draughtsmen, delineating their own environments. Or of William Blake's Urizen, the divine, rational architect drawing the line between light and darkness as the fundamental structure of the visible universe. Think of the legendary *origin of drawing* (fig. 2) and its relation to sculpture in Pliny's *Natural History*: the Maid of Corinth traces the silhouette of her departing lover on the wall, thus inventing drawing, a medium grounded in desire, eros, and fantasy.[8] But then her father, Butades the potter, goes on to invent sculpture by making a three-dimensional relief portrait out of the sketch as a gift to his daughter. Both the drawing and the sculpture, however, depend upon two prior conditions: 1) the presence of architecture in its minimal form: the silent, blank wall on which the two-dimensional image is cast, traced, and then sculpted in three dimensions of "relief" from flatness; 2) the human body, as both the center and periphery of architecture, what envisions it

FIg. 2: Girodet "The Origin of Drawing"

from without, and inhabits it from within. The body is not only what draws, but also what is drawn, both to sculpture and to architecture. The body is itself both building and statue, the temple and the statue of the god within. Whether body as building (as in the metaphor of the temple of the spirit) or the building as a body (complete with skeletal framework, interiority, and orifices), whether it is clothed or naked, draped and ornamented or exposed and transparent, the body is both the thing that draws, and what draws sculpture and architecture together.

The more these distinct media—architecture, drawing, and sculpture—seem to merge in these practices, the more indispensable becomes the invocation of their names, as though the ghosts of the traditional artistic media refused to be laid to rest. Architecture may now be nothing more than sculpture plus plumbing, and sculpture may be the homeless art, a superfluous ornament, or an annoying distraction. Ad Reinhardt famously defined sculpture as the stuff you back into when you are trying to get a better view of a painting. Civic, public sculpture may now be reduced to a filigree, like the parsley next to the roast beef, or consigned to one of those aesthetic sanatoria known as the "sculpture park," while architecture muscles into the place formerly held by sculpture, establishing itself as an art of images, of iconic monuments that dominate the spaces around them, eye-catchers to the world. But meanwhile above them all, drawing *rules*—in both senses of the word—as in the traditional rendering of the image of the divine architect, designing and ruling the world with his compasses. Architecture in its most archaic imaging was always more about drawing than building, and this drawing was from the first "digital" in both senses of the word—i. e., a question of the fingers, of counting and measuring, and of a binary operation that divides the light from the darkness, inside from outside, the one from the zero. Even though everyone now claims (prematurely, in my view) to know that painting is dead, drawing has clearly never been more virulently alive, penetrating every aspect of the production of real spaces. In its mutated form as computer-aided drawing, coupled with animation and three-dimensional simulations, graphic production dominates the world of design and construction, projecting a brave new world of supple, mobile forms that, when connected with industrial production, seem to "build themselves."[9] But before Computer Aided Drawing there was another kind of CAD driven by desire and longing, a form of automatic drawing that pre-dates the surrealists, and that we might call "Cupid Aided Drawing."

So the truly strange thing about the ordering of contemporary media is that now, when technical instruments and codes seem to penetrate every aspect of reality, when grandiose monuments rise on every side, the most archaic medium of representation, the art that is closest to the body, the one that expresses the intersection of the hand and eye in the most intimate of compositional spaces, should make a come-back as the dominant art form. And that it should be followed, as a close second, by that other archaic medium, the art of sculpture—and a style of sculpture, it should be noted, that is not especially innovative in relation to the actual practices of contemporary sculpture. Contemporary architecture most often mimics the look of Baroque and modernist painting and sculpture, either by elaborating highly modulated organic forms (Greg Lynn's Blobs), or imitating the appearance of futurism, collage, and analytic cubism. The only thing being "rejected" by the new architecture is the modernist grid and the stable, rectilinear, perspectival structure of Cartesian space (invariably described in invidious terms as static and restrictive). Frank Gehry's Wiseman Museum in Minneapolis, for instance, is clearly a kind of analytic cubist "duck" fastened on to an interior which is fundamentally the modernist white cube, as if the sculpture and painting that would have inhabited that cube had exploded outward and fastened itself to the exterior. Compare a view of the Wiseman with a Braque composition from 1913 and you will see what I mean.

Of course architecture has always had a relationship to the graphic and sculptural arts (and to numbering, measurement, and geometry), as any tour from the Greek temple to the Gothic cathedral to the Renaissance palazzo would demonstrate. Italian Renaissance architecture and urban design would be unthinkable without the invention of artificial perspective. But the ordering of the arts seemed to have a kind of stability in these styles. The walls (and even the windows) were for painting, and the atrium or apse or niche was the destined home of the statue or portrait bust. With modernism, however, something seemed to change, and a new dynamic entered into the ordering of the arts and media. Clement Greenberg, ever the proponent of "purity" in media, argued that "it is by virtue of its medium that each art is unique and strictly itself," and Michael Fried contended with equal passion that "what lies between the arts" in the realm of "intermedia" is a kind of meretricious theatricality. In this sense, modernism for these critics was a continuation of the classical values of "medium specificity" and propriety. But architecture played, for Greenberg, a strangely equivocal role in the new modernist synthesis. Greenberg argued that modern architecture had to be led out of the "eclectic historicism" of the 19th century into an "independent contemporary style" by painting. Cubist painting in particular was able to "reveal the new style in architecture to itself," and emancipate it (along with sculpture) from its heavy materiality

into a dynamic space of thrusts and energetic displacements. The international style of secular, rationalized spatial design, for Greenberg, united all the artistic media by treating "all *matter*, as distinguished from *space*, as two dimensional"—in short, as drawing or graphic design. All the modern arts were united, in Greenberg's view, by becoming abstract and weightless, and the new architectural materials of steel, glass, and reinforced concrete were just waiting for the visual and graphic styles of pictorial modernism to show the way to escape the gravitational field.

But each art had to become abstract in its own way. Despite the leading role played by painting in Greenberg's story of modernism, it is immediately threatened by "the architectural and social location for which [the painter] destines his product."[10] There is "a contradiction between the architectural destination of abstract art and the very, very private atmosphere in which it is produced" that "will kill ambitious painting in the end." Painting either has to become larger or smaller: the 2 by 2 framed easel painting is in crisis, leaving only two destination: "the wall and the page"—in other words, the mural and the drawing. Greenberg's conclusion: "The best work of Picasso et al. in the last 20 years has been in black and white and in reduced format, the etchings and the pen and ink drawings." It is a strange Oedipal narrative of the relation between the graphic and architectural arts: modernist architecture is the prodigious offspring of modernist painting. But then the child kills the parent, or compels it to shrink down to its minimal form, and play a merely ornamental role.

Are we now going through something similar with the invention of the digital image? Actually, I think not. Abstraction in painting, like the geometrical grid in architecture, was a stylistic movement that had a dialectical relation to a past that had to be negated, and a utopian future that was about to be realized. Contemporary architecture, however much it may be facilitated by digital imaging, has no such programmatic coherence. It is resolutely eclectic, freely appropriating every known architectural mode, from the hovel, cave, and labyrinth to the mushroom to the artichoke to the skyscraper. Digital imaging, in contrast to the role of the modernist graphic arts, has had (so far) a mainly a functional, not an inspirational role to play. It occupies two crucial niches in the architectural process: marketing and making. Digital imaging allows a kind of pre-viewing that was only dreamt of by the sculptural model builders, allowing the client a tour of the projected space that is almost invariably more wondrous than the actual experience of the built monument, in the sense that the consumers can enjoy an almost unlimited mobility and speed in relation to the architectural object, soaring between pedestrian and bird-eye views at the click of a mouse. (This reminds me of the way, in my childhood, the graphic ads for toys in catalogs and magazines always far outstripped the prosaic reality of the things themselves). Digital imaging and virtual reality caves provide the ideal sales environment for architecture, an easy way to project a cinematic simulation of the proposed edifice that will, as we say in Chicago, dazzle the rubes. They are also an ideal mechanism for involving a public in critical discussion, with the aim of sending the architect back to the drawing board.

The other, and I think more interesting and profound, effect of digital imaging is its role in facilitating the transition from design to construction.[11] Here the interface is not with the consumer, but with the structural engineer, and the manufacturer of materials and modular components (panels, windows, structural elements). This is perhaps where another utopian moment enters the picture: the sense of unbounded confidence that if something can be imagined, that is to say, drawn, it can be quantified and codified and realized materially. This is utopian, however, only in the positive sense of possibility, not in any critical sense of negation. It does not tell us what not to do, what to avoid; it only promises us freedom to do whatever we like, which is to say it tells us nothing about the most important questions: what *should* we like, and why? For that, we will have to wait until the relatively young new media of digital graphics have some artistic accomplishments of their own to demonstrate, a possibility that will not be realized primarily in architecture, but in cinema, video, photography, and painting, the arts of the screen and the two-dimensional surface.

This is why, when I hear cheery rhetoric about the wondrous architectural breakthroughs made possible by digital imaging, I want to reach for my wallet. And even more emphatically, when I hear that architecture has now taken over the role of sculpture, I want to reach for my gun. Consider, as an example, the recent hooplah in my hometown of Chicago about Santiago Calatrava's proposed structure (fig. 3). If this building is built, it may well achieve the (very short-lived) goal of being the tallest structure in the world. It will no doubt become an iconic addition to—a kind of centralized exclamation point—on one of the most fabulous urban skylines in the world. But will it be, I ask you, a significant contribution to the world of sculpture? Or will it simply be an inflated example of the most conventional, clichéd item for sale in your local candle shop? (I will avoid the comparison to another familiar item available at your local hardware store, because it might leave us with the impression that somebody is going to get screwed by this project).

Do we need digital imaging to imagine, draw, design, or build this building? Certainly digital ima-

ging is already helping to sell it, and it will probably be important in producing the parts necessary to build it. But from the standpoint of imagination, invention, and drawing, it is utterly conventional and predictable, and the fact that a smaller model (less than half the size) already exists in Malmo, Sweden only underlines this point.

If contemporary architecture, liberated by digital imaging, aspires to the condition of sculpture, then, it does so mainly in relation to Baroque and modernist precedents, not in relation to contemporary sculptural practices. One need only survey some of the salient productions of sculptors over the last half century to see that sculpture has been involved in a paragone or debate with architecture, an ongoing deconstruction of its own history, and of its inevitable architectural environment. Robert Morris's "specific objects," for instance, imitate the basic elements of architecture such as the slab and beam at the same time that they elevate the traditional support of sculpture (the plinth or pedestal) to the status of the primary object. Walter de Maria's *Earth Room* New York City elevates the ground on which architecture stands, transforming architecture into the support of earth. Gordon Matta Clark literally cuts through and across architectural structures in a highly formalized demolition or vandalism, to reveal new angles on architectural spaces, what Terry Smith has called "the architecture of aftermath,"[12] and to deploy the cut-out "discards" of the demolition process as sculptural objects in their own right. In works such as *Ghost* Rachel Whiteread transforms the negative, empty space of a room into a solid cast object whose

Fig. 3: Santiago Calatrava "Chicago Spire"

whiteness in turn renders this solidity as a spectral trace. Anish Kapoor's *Cloud Gate* performs a virtual deformation of the entire urban skyline of Chicago, rendering it as a crowd-pleasing anamorphic spectacle. And Richard Serra's *Tilted Arc* I hardly need remind you, was designed to challenge, even to violate, the public space in which it was inserted, and this violation, far from being an accident, was essential to the ontology of the sculptural object, according to Serra. That is why removal of the Arc from this specific site was, in his view, equivalent to its destruction.

In a tonality quite the opposite of Serra's defiance is Antony Gormley's sculptural engagement with architecture, from the elemental *Brick Man*, with its play on the reversible metaphor of building as body, to his declarations of the abasement, and abjection of the body before the architectural monument (see *Close*) to his humorous *Home* as a inversion of the scalar relation of body and building, to his (usually temporary) placements of cast bodies as dramatically dislocated, out of place, and homeless (*Critical Mass; Total Strangers*). Gormley has also gone beyond de Maria's Earth Room by treating the *flooded* building as a sculptural object, or by invading architectural spaces in *Field* with thousands of tiny clay figures who remind us of a revolutionary mass pushing its way into the institutional space of the museum. He echoes Robert Gober's wall-piercing and gravity defying bodies with works such as *Edge* and *Learning to Think*, and defies the notion that sculpture is just architecture without plumbing in the disturbing cryogenic fantasy of *Sovereign State*, in which a bodily casket or pod becomes a kind of self-sustaining life support system, connected to a tangle of rubber hoses via the mouth and excretory organs. In the process photographs that accompany works like *Still Leaping* we see the most vivid elaboration of Marshall McLuhan's observation that the architectural medium is an extension of the body, literally an outer shell that serves as a kind of pod supported by a labyrinth of rafters and support beams extruded from hands and feet, head and groin. But it is probably in his *Allotment* series that Gormley comes closest to mirroring the universally acknowledged "bad object" of late modern architecture, namely Brutalism. Allotment is a series of concrete block castings which contain an inner negative space cast from an individual human body (fig. 4). This space is untouchable and invisible, except for the orifices provided for the ears, mouth, genitals, and anus. The overall impression is of a scale model Brutalist housing project, with one building per body—a body which (if one gives in to imaginative projection) has to be understood as completely paralyzed and immured in its cement overcoat. A terrifying image, to be sure, but one that requires at the same time a calm meditation on the minimal condi-

tions of bodily existence as mere sentience and freely imagined interiority.

Gormley renders these conditions in ink drawings—emphatically non-digital in their use of pouring and staining of pigments to saturate the paper—that capture three "views" of the body/ architecture relation: the view from outside the building seen as life-support pod [*Sovereign State*]; from inside-out as a prison cell [*Interior*]; and from a deeper inside or transcendent outside [*Float*], as a liberated body flying like Icarus above the globe.

But I will give the final word—and the final image—on architecture's relation to drawing and sculpture to William Blake, whose figure of *Urizen* we have already seen as a model of the architect as divine draughtsman, measuring and dividing, drawing the circumference of the world, drawing a distinction between light and darkness, the inner and the outer (fig. 5). Blake provides us with a pair of related images to complete our picture of the human body's production of space: the figure of *Los, the sculptor*, resting on his hammer as he contemplates the glowing, fiery sun that he has forged on his anvil (fig. 6). (In other compositions, Blake will transform Urizen's compass into Los's tongs, as if to enact in a graphic simile the transition from virtually drawn to materially realized form). But Blake's final image of world-making is by far the most striking, original, and disturbing: it shows the artist/architect as a maternal figure, "brooding" over a globe of blood that can be read alternately as an embryo enwombed and connected to its parent with its placental life-support, or as a world created by a massive wound that draws off the life of its creator (fig. 7). Perhaps this is the metapicture of the architect that we need to ponder with the most concentrated attention. It reminds us of Henri Lefebvre's reminder that the social production of space is not only a product of designers and draughtsmen, the "conceived space" of architects and planners; and not only a product of the engineers and builders who transform those designs into hard-edged material structures. Space is also lived and blindly "secreted" by human productive and reproductive practices. We often speak innocently of a "man-made world," but there are other metaphors for the engendering of our world, as an organism and an ecosystem which has been gestating for the entire life-span of the human species, and which now seems engaged in a momentous labor to be born—or not. In an age, not of digital images but of biopictures, not of cybernetics but of biocybernetics, it would seem that architecture has a more demanding task in front of it than the erection of spectacular attractions and iconic monuments. Time to return to its original vocation of imagining a sustainable habitat for the survival and continued evolution of life forms on this planet. Back to the drawing board!

Fig. 4: Antony Gormley "Allotment II", 1996

Fig. 5: William Blake "Urizen", Glasgow Version

Fig. 6: William Blake "Song of Los", 1795

Fig. 7: William Blake "Urizen"

Notes:

1 I am very grateful to archtitectural historian Katherine Taylor of the Art History Deparment at University of Chicago for invaluable advice, and to Anthony Raynsford for the key reminder that architecture is basically drawing.

2 Quoted in Joseph Rosa, *Folds, Blobs, and Boxes: Architecture in the Digital Era*; Heinz Architectural Center, Pittsburgh, 2001, p. 9.

3 Barthes, Camera Lucida; see also my discussion of the uncoded "wildness" of the iconic sign in *What Do Pictures Want?*

4 See Brian Massumi, *"On the Superiority of the Analog,"* in: *Parables of the Virtual*, Durham, N.C.: Duke University Press, 2002), 132–143.

5 One could say, however, that this would be an image of the digital as such, a spectacularizing of the look of code.

6 Kittler, *Gramaphone: Film Typewriter*, Stanford University Press 1999.

7 Focillon, *The Life of Forms in Art;* New York: Zone Books, 1992, Original publication, 1934.

8 See my essay, *"Drawing Desire,"* in *What Do Pictures Want*, Chicago: University of Chicago Press, 2005.

9 See Luis Eduardo Boza, *"(Un)Intended Discoveries: Crafting the Design Process", Journal of Architectural Education* 60: 2 (November, 2006), p. 4–7, for a critique of CNC ("computer numeric controlled" fabrication machinery), and its relation to handcraft, intuition, and risk.

10 *"The Situation at the Moment";* Partisan Review, January 1948, Collected Essays II. 195.

11 See Boza, note 9, for a good discussion of this technology.

12 Smith, *The Architecture of Aftermath*; Chicago, University of Chicago Press, 2006.