Berlin-Crane City:
Cardboard, Bits, and the Post-Industrial Design Process

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This paper explores the impact of information technology on the architectural design process as seen through different design studios from three schools of architecture in Southern California over a two year period.

All three studios tested notions of representation, simulation and the design process in relation to a post-industrial world and its impact on how we design for it. The sites for two of these studios were in the city of Berlin, where the spatiotemporal of the information age and a liftoff of the industrial revolution overlap in an urban condition that is representative of our world after the cold war. The third studio describe a progressive shift in the use of information technology in the design process, from nearly pure image-driven simulation to a more low-tech, highly creative use of everyday computing tools. Combined, all three cases describe an array of scenarios for content-sponsive uses of digital media in a design studio. The first studio described here, from USC, utilized computer modeling and visualization to design a building for a site bordered within the former no-man's-land of the Berlin Wall. The second studio, from SCI-Arc, produced an urban design proposal for an area along the former Berlin Wall and included a pan-geographic design collaboration via Internet between SCI-Arc/Los Angeles and SCI-Arc/Switzerland. The final and last studio, from Woodbury University, participated in the 1997 ACSA-Dupont Laminated Glass Competition designing a candidate general for Germany and one for Hong Kong. They employed a hybrid digital/level process extracting experiential representations from simple exploded studies models and then using that information to explore an "enhanced model" through digital imaging processes.

The end of the cold war was coincidental with the explosive popularization of information technology as a consumer product and is poised to have huge impact on how and what we design for our cities. Few places in world express this potential as does the city of Berlin. These three undergraduate design studios employed consumer-grade technology in an attempt to make a difference in how we design, incorporating discussions of postconstrual change, ideological premises and what it means to be an architect in a world where image and content can become easily disconnected from one another.
background

While digital technology first impacted the design process through electronic modeling, simulations and digital reality, it has progressively grown to encompass communications (such as asynchronous design collaboration) and more recently hybrid, juxtaposed digital/analog design methodologies (merging “real” models and images with “virtual” ones), through rapid prototyping and digital photography as these technologies became available to an increasingly broad range of users. The emerging challenge for architects exploring the impact of digital media in the design process has increasingly moved from focusing on the electronic “tools" themselves (as these have become easier to acquire and use) to pushing the envelope of what we do best: solve problems creatively. In academic settings especially, we have evolved in recent years from being fascinated with the novelty of hyper-realistic representation to searching for a reason as to why this technology should matter to architects as a condition of our time.

We are realizing that imaging technologies developed for the military and entertainment industry and its capacity to generate sophisticated graphics have impacted architectural content even less than they've affected the mass media's content. Quite often, virtual reality and simulation in a design studio is pedagogically inconsequential because the “reality” being modeled is frequently uninteresting and predictable, mimicking traditional design concepts and their corresponding representational methods. For example, many still hold onto archaic, superseded notions such as “perspective” and “perspectival space” in relation to computer-visualized models as if they had anything at all to do with constructed, paper-based representations of space developed during the Renaissance.

The increasing ease of use in digital form generation and texture mapping frequently have placed the representational media ahead of the architectural content rendering the use of digital media superficial and distracting. One consequence of the prevalence of image-driven architectural computing in many schools has been the ubiquitous number of design studios utilizing entertainment industry paradigms as a means of incorporating digital media into the design process. Simply employing this technology as a “tool” for easy image generation or creating superficial fly-through's of sets that portray to be architecture may have the effect of “dumbing down” architectural representation into becoming an end in itself, hollowed of content and enabled by instrumental savvy in replacement of architectural knowledge. Certainly to confuse architectural representation with the entertainment industry is simplistic and a dead end for our profession. It is simply foolish to reduce the art of design to an exercise of visualization, but that is exactly what much of the high-end of the computing spectrum was developed for in the first place. This use of information technology in architecture is not a path conducive towards exploring an architectural frame of thought for the new millennium.

The end of the cold war and its aftermath are in large part a consequence of shifts and transformations supported by a massive and accelerated technological evolution. A characteristic of our current world order (economically, politically and technologically) is a tendency towards fragmentation of pre-existing structures and their recombination to form new structures and arrangements. In terms of information technology this transformation/evolution is rendering powerless the cold war-era centralized government sponsorship of technological development and its nuclear-age alliance with large universities. Rather, it thrives in small and medium businesses, private homes and in our case, in the design studio. As an example, just think of the government-run nuclear weapons oriented ARPA net, now reborn as an Internet which that very same government can’t regulate or control. The new processes involving high technology
suggest a leaner, more ingenious use of resources leading to result-driven outcomes. Architecture in this sense becomes no different than geopolitics, global economy and even the (recent) exploration of Mars. Ingenious, individual enterprise, creativity and inventiveness stretched to the limit, a means of achieving progress and offering a response to the societies we live in and design for. This involves the use of all available resources and combining them creatively to push the envelope of what we already know in the hope that what we find as a result will make a difference.

The use of consumer-grade technologies in architectural design requires creativity, will to succeed and inventive can-do *esprit* qualities of a designer for a world that is re-inventing itself through a new pragmatism that is based on the valorization of individual creativity and the kind of inventiveness that occurs in a converted garage as well as in a dust-free computer lab.

The whole *hacker* culture is symbolic of this *esprit*, felonious activities aside. It is decentralized, fragmentary yet intimately related to other forms of contemporary cultural expression. By definition inexpensive, when not free, it is liberating only for those who can see beyond the technology’s phony veneer and apparent lack of cultural content. It is a hybrid and complex state, accelerated and defiant of pre-existent norms. This notion of becoming inventive with relatively modest means is suggestive of what it will mean to be an architect of the end of the millennium. We are, as many other disciplines and professions are doing, redefining what it means to be an architect in a world where old truths are now suspect and where the notion of Information has become just another buzz word for selling goods.

**foreground: three studies**

Following, I will describe the three studios themselves and how each one applied information technology in completely different ways but all with the objective of informing and impacting the design process. Occurring over a two year period, they represent a stepped decrease in the use of computer as a unique digital tool, and an increase in inventiveness in the use of simpler, more open/loose design techniques employing digital media. The first studio was required to employ computing as its core topic. The second and third studios were not.

**studio 1. FRES: exploring space in no-man’s land/university of southern california**

This was a vertical 4th-5th year Topics in Architecture design studio, the topic being Computer Assisted Design. (Figures 1-10)

As the studio instructor, I decided to explore a design problem that would bring the use of computing into the greater context of history, technology and geopolitics. A tool of our time as a means of understanding the dynamics of our times.

The proposal was to design a Forum for the Reunification and European Immigration on a site within one hundred meters of the Brandenburg Gate, on a lot located within the former no-man’s land of the Berlin wall. As a curriculum mandated digital “topics” studio, all students were to use (and learn) computer modeling as their primary design environment. Our departure point was to attempt an understanding of the political and technological conditions surrounding both the existence and demise of the Berlin Wall via the design medium being employed. A Post-Industrial design environment applied towards a Post-Industrial urban condition. In architectural terms, this meant identifying design issues and points of view that were not obvious in a traditional design process: the most relevant of these being that of electronic inhabitation and its informing the simultaneity of conceptual/experiential instances (Smilie, 1996).

The relationship between building and ground plane, for example was studied as a con-
dition of phenomenological consequence. Many students were able to connect with the sensation of “standing” in the former no-man’s land through electronic inhabitation (simulation), and because of this many adopted perceptually driven theoretical stands about ground plane use. Some decided for the negative-space exercise of exploring underground space, others lifted their designs off the ground feeling that the space that had separated both Berlins’ had an almost sacred quality and had to remain open in a reactionary response to the memory of The Wall. In both cases, these decisions were made while “standing” on-site in electronic space. They had to be there to understand the emotional bearing of the site’s history.

The use of digital media (in this case computer model simulation) allowed students to explore the site simultaneously from both a conceptual and experiential point of view. This made for a direct connection with history as place, making references to the Berlin Wall both as experience as well as metaphorically (immaterial). Structural systems were explored as a means of exposing technological and cultural contrasts as possible design parameters. Duality, a notion emerging from the east/west condition, was studied as experience. Reinforced concrete juxtaposed with light steel frame structures; notions of heavy/light and tectonic/ethereal approached as metaphor and tested against historical reference; all images and move images from the history of the division. In our case, the images became a powerful inspiration, as images are information and information is currency of the New World Order. We accepted that in this studio, we would take appearances seriously (Benedikt: Cyberspace: First Steps).

Transparency, translucency and opacity were studied in depth in all the projects. We concluded that being able to “see” through things was an opportunity only possible through fall-
scale experience, which is what electronic simulation essentially is. This way, notions of layering and spatial collage were translated into the physical layering of translucent planes in space.

Scale, through electronic inhabitation became more than just a study of relative proportions as seen in traditional means of representation; it became a true means of understanding space relative to the human body. Notions such as Steven Holl's nested experience (multiple simultaneous scales) invited students to understand the scale of a detail and the scale of the city as a simultaneous notion conditioned by optics (1996). Optical simulation transcends traditional media and enables the reading of multiple simultaneous scales in space.

The architectural expression and language that was explored became intimately related to the design process being developed in studio. Students explored notions of surface depth, for example, based on the principle of hyper-linked non-linear layers, an information technology-specific concept a notion borrowed from hypertext, of World Wide Web fame and applied to the building envelope. This kind of study resulted in diverse types of building envelopes tied intimately to a notion of non-hierarchical program space, where the building becomes organized by multiple levels of form-to-concept linkages and not just by form-to-program definition. This kind of study could not be developed or communicated with traditional drawings, needing to be shown as experiential sequences in space.

In studying the conditions of image and language for the F.R.E.I., we discussed the value of metaphor and non-metaphorical expression, vis-à-vis building as a messenger and building as a timeless repository of truths. This led to another digital-based concept referred to by Thom Mayne as thingness, a notion best described as the property of having all of an object's materi-
ality compressed on its surface. In exploring this notion, which draws from the digital visualization technique of texture mapping, several projects experimented with materials without message or any kind of symbolic premise; only a determination to inform about other properties, mostly spatial, embedded in the project. This way, the skin of the building expresses information such as “structure” and “program” without attempting to synthesize them.

This is an imminently post-industrial and indeed post-structuralist concept, where the whole is not greater than the parts and where different aspects of a design shed the need to communicate metaphor and can simply become references to yet other aspects within the same project. Self-referential space (Leibniz’s Woods) appears as a trademark of the New World Order.

Some of the results seen in this particular studio were a consequence of a focused understanding of the relationship between design media and urban physical historical context. The projects developed carried a highly tactile, spatially rich architecture that owed much of its qualities to focusing the use of digital media to design on site-specific conditions, seeking a correlation between architectural design methods, design media and a holistic understanding of the historical and technological legacy (over time) of the former Berlin Wall.

studio II, project Berlin: a pan-geographic urban design studio, SCI-Arc

The opportunity to develop a design studio for the former east/west edge area along the Chiffahrtkanal just north of the Lehrter Stadthbf (and site of the future central train station for Berlin) involved both a programmatic and procedural challenge. The program consisted of proposing a mixed-use urban design project along both sides of the canal over an area almost one kilometer long. The Wall ran along the east bank of the canal, so the project addressed this edge condition as a premise, and dealt not only with the east/west reconnection of the urban fabric but also the future presence of

Figures 11–12. Studio II, Project Berlin, SCI-Arc 1996. Student web page with clickable site photos (left); site (right).

144
the new German Federal Government forum Sprngbind to be located just south of our site. Figures 1-25.

These were in fact two studios, one with eight students based at SCI-Arc Los Angeles and the other with seventeen students located at SCI-Arc's villa in Vico Morcote, Switzerland. The Europe-based studio had visited the site and had images as well as personal impressions of Berlin, while the LA-based studio had access to research resources that were unavailable in the remote villa 300 B. above Lake Lugano. The proposal for this studio was to explore collaborative design as a pan-geographic "nomadic" condition, experimenting with accessible lowend communications technologies that required little or no material support from the school itself as a means of bridging physical distance to some degree. We tested a design process that hinted at an analogy to the irrelevance of centralized organization and geographic determinism on which much of the east-west separation had relied. Our attempt at globalization brought elements of a Post-Industrial design process into our studio, in the form of a semi-physical non-physical "extended" studio spanning nine time-zones.

Through daily meetings on the Internet Internet, E-mail, Chat, e-mail and www postings, students on both continents were able to discuss impressions and ask questions about the design problem, with faculty advising them at either end. The use of inexpensive digital cameras allowed students to send images of work in progress, including images of sketches and models. This way, the Project Berlin students obtained a periodic update of what each side was developing. It was clear that each studio defined a different profile and individuality, despite the ongoing communications and information sharing. The Los Angeles-based students were hungry for first-hand impressions about the nature of the place, the "feeling" of certain buildings on the site, especially after the Vico students mailed a video tape of the site to LA, generating numerous questions that required personal descriptions from the Vico students themselves.
Following is a very brief transcription of one random IRC chat between Los Angeles and Vico. It is hard to understand because the "lag" (time delay) in the dialogue tends read with difficulty when described but hints at the information being sought by one or other side of the pan-geographic studio.

Partial IRC transcription from June/July 1996 between Los Angeles and Vico Morcote, Switzerland

<Morcote> Morcote is bas, Riccardo, pray and edward
<Arvid> Now is it feasible to develop the site around that railway as well?
<bucket_d> JEE: Part of the video was taken from the third floor of a gray building with lots of German people speaking, the view from the building included the wall when the camera panned left and the canal when the camera panned right. Which building was that shot from?
<bucket_d> JEE: Where is the site.
<morcote> one of the housing blocks on the east side
<morcote> holding, we'll be more precise in a moment.
<bucket_d> Cool.
<Arvid> Can we clarify east side—are we assuming the hospital is on the bottom or south side?
<jee> JEE: don’t recall that third floor building
<bucket_d> Hmm
<morcote> hospital is east side just south of sportplatz
<Arvid> thanks.

<Arvid> how much housing is occupied on our site?
<morcote> Hi Ray,
<Arvid> Hi Ray,

<bucket_d> JEE: Is it possible to walk the length of the canal.
<bucket_d> JEE: Hello Ray
<morcote> any more questions?
<morcote> yes it is.
<bucket_d> JEE: Is the canal blocked?
<jee> JEE: no
<Arvid> I see how much housing is occupied on our site?
<morcote> the city has proposed a bike path/park scheme tentatively
<morcote> we can send you that proposal
<Arvid> Morcote: yes.
<arvid> CAPTURED: still waiting to get approx. scale of housing in area...units?
<jee> JEE: arvid: mostly on the east side of the site with a few on the north east.
<morcote> cappreciated: housing is 20-meters typically

Just for reference: JEE is Gerard Smukler in Los Angeles and Ray is Ray Kappie, who was responsible for SCI Arc in Vico Morcote this summer. The Vico students were all participating under a single nickname ("Morcote") because they only had one computer online at the time (they never had more than two, both student-owned). These IRC conversations were held relatively frequently, even daily during for a few weeks during the semester.

We attempted a limited joint design exercise between L.A. and Vico, in this case to design a bridge across the Schiffahrtskanal. The Los Angeles studio had a full array of resources, such as computers, software, drawing supply stores, model shop and seamless Internet access.
and a real library. The Vico students had a notebook computer and an old DX-66 PC, a small model shop and a half-hour mountain road drive to Lugano to purchase drawing supplies. The collaborative allowed each studio to complement the other.

The LA studio based most of their contribution via computer modeling (simply because they had it) and the Vico crew employed traditional cardboard models and sketches (because that was all they had to work with). Vico students would build a rough model in chipboard and take pictures of it with a grayscale digital camera, and email or DCC send those images to LA (Direct Client-to-Client, a faster IRC protocol for file transfer between any two computers on the Internet). In LA, the students would respond with a computer model using Autocad and 3D Studio, and then digitally send the resulting images back to Vico. This became a three week iterative process of interpreting ideas from images generated through diverse (and available) media and defined a pan-geographic resource-sharing protocol enabled by using Internet tools (all legally downloaded for free from different web sites).

In Vico’s 17th century villa, we jury-rigged and spliced telephone cables to reach the administrative office with the only functioning telephone jack as well as negotiating over a ten day period the setup of a dial-up account over the phone with unseemly Tixto Net “service” managers. Up in the hills overlooking Lake Lugano, young architects crawled onto the Infobahn on hands and knees, establishing a volatile link to the world and so to their comrades in Los Angeles. Our Zip drives containing essential Internet software suffered meltdown from fickle power surges, but luckily the anarchy of the Net provided us with all the programs we needed. Freeware and shareware communications and graphic programs were downloaded from various ftp sites. A studio web page was created by two LA students for posting questions between both studios and thus the collaborative commenced.

Although sharing resources pan-geographically, each group had a distinguishable take on the project, heavily influenced by where they were located. The experience of being in Europe and having have come in contact with the culture and physical reality of the project site.

biased the Vico students experientially and emotionally. The ability to research history about the Berlin Wall by the LA studio made that group highly political and critical at a theoretical level, and the experience relayed to them from Vico caused not few disappointments when theory did not support fact; but this was the all part of our learning experience. One can develop a digitally enabled pan geographical design collaboration without losing the uniqueness of physical location, while making use of each other's unique resources and views.

We discovered the possibilities of globalization as a reinforcement of cultural experience and not as neutralizing or homogenizing. In the end it became a very individual exercise, with a great deal of shared knowledge that became empowering rather than leveling. Whether their design ideology was acquired through scholarly research (in Los Angeles) or through direct empirical experience (by the Vico studio) and even after both shared their particular interpretations of the design problem, both studios still retained distinct characteristics, visibly enriched by the exchange of points of view. Both groups remained clearly distinct studios yet formed a third shared studio that existed as long as the will or need to communicate was present. Globalization in this case reinforced the importance of geographic opportunity, and by no means neutralized it.

**studio III. cardboard and bits: mixing the best of both worlds, woodbury university**

This fourth-year topics in Architecture studio participated in the 1997 ACSA/Dupont Co. laminated glass competition. The studio sought to blur the distinction between traditional and digital design media, forcing a crossover between the two. We pursued this as a means of achieving a hybrid process that may very well be a condition of a post-industrial design process, one that seeks to re-conceptualize “tools” now as “environments.” This notion
implies that there is a strong interaction/feedback between designer and design medium. (Figures 26–29)

The nature of digital media here becomes an amplifier of traditional media, expanding known representational techniques such as cardboard model building into a device for quick, intuitive photographically detailed “sketches” of constructed space. For the first time, modeling and drawing can become one, providing students with an incredibly flexible and easy to apply design medium. It also opens the doors to conceptual/experiential iterations without the overhead and labor-intensive use of computer-generated visualization.

Students developed this hybrid process based on two notions: a) that form generation was conceptual at least in its initiation, modulating space through form, but; b) space can only be studied as architecture in its truest definition only when experienced. These notions led us to develop the idea of using quick, rough traditional models to create an initial concept and then experience the resulting space through digital photography employing the same little spherical gray-scale camera used in the Project Berlin studio at SCI-Arc.

Pedagogically this implied merging conceptual and experiential instances into a seamless process, converting a cardboard model into bits (bitmap image). We were overlaying non-digital and digital design media, pursuing a theoretical premise we set for the studio: “Trying to determine what happens when one pushes industrial-age ideas and methods through the filter of post-industrial technology, and how each medium ‘empowers’ the other when employed jointly.

The recurring notion of blurring applies here as a metaphor for using all tools available in defining alternative design methodologies and exploring an architecture born from this process. Generating space as a concept, quick cardboard model, capturing images of its internal space with a small digital camera, and then “sketching” on these captured images by employing digital
collage techniques in Photoshop, constructing design-rich spatial representations from rough model photographs. Students explored glass reflection, transparency/translucency and perceptual qualities by *drawing* inside these bitmap images of their models. Using layering techniques within Photoshop, students were able to paste their model images on background images of their project site, and create openings and transparencies related to the projects physical context, literally knocking out openings in the walls of their models to reveal landscapes framed beyond all within the digital image. These layered images became live model pictures, mutating and multiplying into creative alternatives and document progress. Structure was drawn into the images using the Line tool in Photoshop, and later studies in again in rebuilt versions of the original cardboard (and wood) models.

It became clear that bits were bits (Negroponte, 1992) and that whatever was digitally captured and collaged or was drawn into that captured image, all became one digital database. The cardboard model was now turned into pixels, so adding and subtracting pixels became a sort of post-material extension to material model-making. We discussed the fine line in this case between simulation and representation and the value that both these visualization notions have in a hybrid non-digital/digital design process.

The following step was for the designers to re-invent their models working *backwards* from the digitally altered images of their original study models, much the same way the Vico students had built their chipboard models of of emailed images of CAD models sent to them from Los Angeles. The result was a very elaborate, experientially rich architecture conceived and developed completely through this analog/digital marriage. Truly, the digital camera captured the *conceptual essence* of the students’ formal ideas contained in the initial cardboard study models, which they then developed in great detail as a purely experiential instance; later,
by proceeding with the re-formulation of the concept model they concluded the first iteration of an alternative design process. An integration of digitally augmented reality with abstract conceptualization.

Augmented reality became a simple and very effective notion in developing the projects. One level of reality defined in cardboard was augmented by digitally “sketching” on a picture taken within that model. The end resulting images bore absolutely no resemblance to the original digital pictures taken from the cardboard models. Even more, multiple alternatives were easily created and evaluated side-to-side. While the whole concept of generating “alternatives” to a design concept can be seen as weak, ambivalent, and a misuse of computers in architecture, in this particular case it allowed for a more experimental approach and greater risk taking than that seen both with traditional media as well as with straight computer modeling. The learning curve was extremely short and the level of feedback enormous.

The quality and definition of the projects was excellent and in most images it was impossible to distinguish what was cardboard from what was digital input. Truly, the design media served the design process and was accessible to all students. With minimum computing power and much energy and imagination, many students in fact developed their design skills more by being able to join material and digital thinking and expression, rather than having to choose between the two.

As in the case with the Project Berlin Studio, the Cardboard and Bits studio employed basic, low-cost equipment and software, staying true to the notion that we were attempting to work with a technology that is a part of our time and our evolving professional practice. We experienced a design process that was economically and instrumentally feasible and thus of consequences to the discipline of architecture.

conclusion

We believe that the architectural design process will evolve by grasping and pushing technology to the limit and not by under-utilizing technologies that have been conceived for applications that have very little to do with what matters to us in an architectural design studio. We are seeking, as Lebbeus Woods wrote, to
"participate in change by being part of its initiation," (eggs), and this will only happen if we attempt to understand what change really means to us as architects.

Simulation cannot be confused with representation, and both are relevant and necessary devices for generating architectural knowledge. The moment that knowledge is not the driving force behind its use, a design tool becomes irrelevant. Movie industry special effects are just that, and of little interest in the teaching of architecture. We do not fly through buildings, and we usually even have to stand still to understand them. The computer “fly-through’s” that we see in review after review and conference after conference are an example of the misuse of information technology in design studios, happening only because it can be done and supplying very little of value or interest to the design process. Most of the valuable pedagogical contributions that high-end visualization technologies can make in the design realm are also achievable with very low-end (consumer-grade) technology.

Here the notion of affordable/accessible technology as a relevant one, because architectural design (and all design, for that matter) is quite unimportant if not related to the creation of things (whether material or virtual) and its tools must be available on demand and economically accessible to individual designers and not just corporations and large, well-funded universities. This raison d'être for architecture (viability) is crucial when contemplating how and why information technology is important and transcendental in developing an architectural culture of our time.

A more holistic understanding of electronic media, merging representation with communications, has broadened the subject and brought electronic media into the center of contemporary architectural debate. One reason that explains this occurrence may that we are starting to de-specialize the technology as it becomes more mundane. Architectural computing is becoming architectural digital media and must move completely away from the realm of the technocrats and computing labs and into the design studios, not to mention our students’ own rooms. We shouldn’t have to “teach” cao and digital media any more than we have to teach traditional graphic techniques. Maybe the time has come to eliminate the distinction between traditional and non-traditional media, period.

This transition requires that we apply the same open mind toward digital media as that which we demand from our students in their projects. It is time to understand cao as only one of an array of digital tools. Those of us who actively teach design studio employing information technology are constantly confronted by our less computing-inclined colleagues about how the use of this or that digital tool has made any difference at all in a certain project. Why the effort? Or even more: So what? These are extremely valid questions that cannot go unanswered. The use of digital media in an architectural design studio must make a pedagogical and intellectual difference in studio, establishing a linkage between thinking and making and becoming a means for our students to grow as architects, men and women of their time.

These three studios experimented with digital media in varying degrees of technological sophistication and intent, but what becomes clear is that in Berlin-Crane City, in fact in all our cities, we are going to be increasingly affected by the collision between space and place brought on by the post-industrial blurring of traditional edges. We cannot discuss architectural computing anymore without discussing architectural content. We should not take for granted technological empowerment without asking how will the built gain with its employ. On the edge where the built intersects the imagined, we will find architecture as edge of thought, and we will mostly likely discover that complexity is OK, contradiction is healthy, and that more...is simply just more.
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