

Conceiving of Cyber Architecture/Virtual Architecture

TANAKA Jun: At the present moment any discussion of cyber architecture or virtual architecture is plagued with a variety of difficulties, but in this discussion I would like to begin to sort out some of the issues involved. In the most vague and general terms I think we can start out with the claim that the contemporary situation of architecture built in real space is itself undergoing transformations in intimate relation to this phenomenon of cyber, or virtual architecture. Of course, these concepts--such as the concept of the cyber city--are extremely unclear and difficult to define.

TAJIMA Noriyuki: The term "architecture" can refer to information processing or to architecture proper. Moreover, you also have Architecture with a capital "A" and architecture with a small "a." This makes it difficult to say exactly what is meant when we speak of cyber architecture. If we are talking about architecture with a small "a" we can approach it by identifying elements of urban planning and architecture within cyberspace. When it comes to "Architecture" with a capital "A," we can speak of cyber architecture as something which might transform the concept of architecture itself. Architecture as information processing, moreover, requires us to think of information as a structure.

The problem, then, is where to begin.

TANAKA: In any case the problem has to do with computer technology. At the same time that cyber architecture starts to be talked about as a kind of design using computer technology, that same technology comes to play an enormous role in the design of real spaces. As a result you have a convergence of the design of information space with that of real space through the mediation of computer technology. Then people start talking about the prospect of something like a new, common concept of architecture. At the same time, the "virtual" in virtual architecture suggests the possibility of total design freedom on the computer (of limitless virtual forms). This leads to attempts to pursue design possibilities different from what could actually be built --which in turn leads to attempts to design information spaces based on the metaphor of the city. Here we start getting into the territory of the Internet and information processing technology--like your own "Meta Tokyo Project."

TAJIMA: The somewhat unfocused debates surrounding cyber architecture seem to begin with the division between metaphysics and reality. DELEUZE, for example, talks about "the possible" and "the real." But it seems to me that it is difficult to



understand cyber architecture, or virtual architecture, on the basis of this kind of dichotomy. In something like the "Meta Tokyo Project" I am trying to think about the relation between the corporeal and empirical elements of (physical) architecture and cities, and (metaphysical) architecture as knowledge or thought.

Does Cyber Architecture Defy Gravity?

TANAKA: It's true that the body is extremely important. There are those like Marcus NOVAK who claim that design is free in cyber architecture because there is no gravity, but this is just a kind of utopian idea of architecture as having escaped the limitations of the human body. This is also something which comes up regarding "unbuilt" architecture, but most modernist architecture itself, whether Le CORBUSIER or MIES VAN DER ROHE, have used the freedom afforded by imagining unbuildable designs as a springboard for the creation of new architectural spaces. Freedom in architecture can be realized through media as simple as drawings. In fact it was the differences among and translations between different media which provided the violence necessary to force the transformation of our notions of architecture. So the kind of freedom that people get so hyped up about when they talk about cyber architecture is nothing new. In fact

if you look at the kind of designs that have come out of cyber architecture so far, they have tended to fall back into a kind of rigid, expressionistic formalism. This kind of tendency has been directly discussed through the metaphor of fluid architecture--but representing information spaces through this kind of impossible, a(na)morphous distorted space has deep ideological significance. We are being fooled into thinking that this world is more glamorous and fascinating than plain old reality.

In the "Virtual Architecture" exhibition held last year at Tokyo University, Greg LIN rejected Cartesian space in favor of LEIBNIZ's folds. It was all very primitive [laughs] but what no one there seemed to realize was that the criticism of Cartesian space is itself only a discourse of power in today's society of information capitalism. Virtual space is precisely where major capitalists like Bill GATES do their work. When people like GATES are out there using a(na)morphous language to build information spaces at a dizzying rate, the naive ideology of a critique of Cartesian space is only too evident.

TAJIMA: Greg LIN and Marcos NOVAK are the two major proponents of fluid architecture--but it's true that their work has ended up being a kind of expressionism one could only call virtual baroque.



TANAKA Jun



TAJIMA Noriyuki

They have been quite strategic in trying to use the computer to generate designs which were heretofore impossible, but in the end it's not so different from the way architects use computer graphics to make really fancy presentations. In terms of process, however, their work does hold a certain interest. Notation, for example, has always been important not only in architecture, but also in intellectual constructions. Design is only conceivable and possible through the mediation of some kind of notation. In architecture you have plans, in music you have the score, and in cultural anthropology you have diagrams. If we rethink the computer as this kind of mediating space you start to be able to mediate things like movement and tumult which were formerly unrepresentable. I think their work is actually quite interesting when seen from this perspective.

TANAKA: Fluid architecture makes much of movement, so it always includes the concept of time. ASADA Akira and others were talking about this problem in the discussion of the "Virtual House" exhibition included in this issue--that as soon as a piece of architecture is actually built in physical space the movement possible in cyberspace come to a rest. Of course if it still continues to change even as a physical space we can avoid the question of where to stop it. But as long as movement maintains the qualities of this mediating space, those qualities will not be reflected in the result once it has been stopped. So as long as they put the emphasis on movement in their method, the design on the computer screen will have to be separated from real space.

The Ideology of Cyber Architecture

TANAKA: I would like to touch on the tendencies, or symptoms, of computer-assisted design that I have noticed both in the "Virtual

House" and the "Mirage City" exhibitions. ZAERA-POLO, for example, has used a kind of computerbinary incorporating diverse factors like interior/exterior, public/private into the computer and giving it form. The idea is that if you enter lots of different elements you see forms developing naturally which reflect that diversity. The basis of all of this is a simple schematic or mythology--a progression from simple factors to complex forms characteristic both of the computer and of chaos theory.

TAJIMA: I think there are actually two different ways to use the computer. One is to perform simulations at a speed that would be impossible in real space. The other is to use the computer as a mediating space into which data can be entered and calculated to come up with a final output. What ZAERA-POLO is doing with the AA School Unit is to take actual data from urban spaces, to input it, and to make the resulting output into the final form of the architecture. This is slightly different from what someone like Greg LIN is doing. Greg LIN and Marcos NOVAK have put together an expressionistic design of what John FRASIER accomplished with computer simulation.

TANAKA: ZAERA-POLO samples information from an actual city--it's a kind of program of form generation. As far as the theoretical form goes, it's a question of creating output by unifying the fields and entering the appropriate data. For this reason, if you are able to create a program that would give you the most appropriate answer, you ought to be able to avoid the problem you see in Greg LIN's work--of having to select or determine something from an endless number of possibilities. But ZAERA-POLO's work is not free of a certain ideology--a kind of prearranged destiny according to which the most diverse factors



inputted will automatically yield the most appropriate self-generation. In this case the program itself has become a black box, so the problem of decision making will inevitably come up with regard to how to make the black box. Thus the problem of who stops this process of self-generation when is replaced by the question of what kind of program to write. This is also related to systems of political decision-making--of whether or not to let the majority decide in a democratic fashion, or to head towards the autocratic decision making of a dictatorship. And there is no question that architects today are dictatorial [laughs]. In the "Internet" part of the "Mirage City" exhibition, ISOZAKI was trying to cast the random proposals of an infinite number of others into a single model and thus to create a kind of self-fulfilling vision. In the end this was a really radical form of direct democracy.

TAJIMA: In the "Mirage City" exhibition, the access of so many people did not in fact help to generate the project. In fact I think it was more anarchical than it was democratic. In the end I think the problem of how people who access the Internet are involved in capitalism, democracy, and nationalism really came to the fore. In other words, it was really fascinating how this project gave rise to something which was beyond anyone's control.

TANAKA: At present the bifurcation of cyberspace created by electronic media and real space has become extremely conspicuous in the city. I think it is really the Internet which is furthering this tendency. As a result the real city is becoming a wasteland and losing all interest. This tendency is paralleled by the emergence of the dizzying, a(na)morphous world of the cyber city and the gap between them is being played out on our very bodies. In an information-rich environment we can come into

contact with worlds from which we are geographically and spatially isolated. And in the background of all of this you have the total convergence of the New Right elements singing the praises of the electronic marketplace and economic liberalism with the New Left and their praise of anarchy and the global village. Together they espouse the absolute, unquestioned value of the electronic network. It's what you might call the "Californian Ideology." It's fine as long as it manages to implement a real critique of power, but it inevitably overlooks the existence of a black hole inside the network--namely that it is ultimately a physical infrastructure that makes the information environment possible. However, unlike this infrastructure and its maintenance, the urban environment itself is being dismantled under the shadow of the Internet's growth.

TAJIMA: The Internet is marked by the disappearance of state boundaries. It is an environment in which individuals can relate to each other on a completely different level. There are those who speak wishfully of this as enabling more democratic relations--so how should architects and urban planners be thinking about this? I have come up with three basic principles. First of all, "Cyberspace is a human network and a human activity." Second, "Cyberspace is information." And finally, "Cyberspace is an amalgamation of consciousnesses." In each of these statements we can replace the term "cyberspace" with "architecture/the city" and they will all remain valid. In the same way, it ought to be possible to take another look at the actual city through the filter of cyberspace. Then we can start to discuss whether or not that city will be dismantled or whether it will simply move into a different phase.

Transformations of the Real/Dismantling of Architecture

TANAKA: You are absolutely right to say that cyberspace will continue to help us to rediscover the urban. It exists alongside the city like a twin, or possesses it like a ghost. Actually I'm not sure which is the ghost and which is reality. But there is no question that the retroactive discovery of the urban as the result of the emergence of cyberspace is a kind of Freudian *Nachträglichkeit*. But by that point the collective human memory or the interactive space of the city has already moved into the space of the Internet, so that the actual city has been lost to view. This makes me a little pessimistic [laughs]. This kind of situation won't do. The apartheid-like urban conditions surrounding access to this information space must be abolished. But nonetheless, in a situation where Internet space, or cyberspace starts to appear even more real than actual space you get a transformation of our sense of reality which can only lead to a critical point.

TAJIMA: It is certainly true that reality is changing. ITO Toyo always used to insist that architecture itself was not only to be created in accordance with classical reality, but could also be designed based on the kind of reality you have in the mass media. But even with mass media architecture could still remain the other. When it comes to the Internet, architecture and the city are no longer external. Up until now architecture and the city have changed by incorporating the social situation of philosophy, science, and the mass media. But if we try to follow these precedents by incorporating Internet culture we won't have much success. I think this is because you're starting to see the emergence of a paradox whereby architecture and the cybercity are changing places.

TANAKA: So our sense of virtual reality is emerging as a crisis consciousness regarding architecture. ITO Toyo's proposal in the "Virtual House" exhibit is really symbolic in this regard. He has taken the dismantling of his older sister's house, built twenty some odd years ago, as an instance of a "virtual house." He is saying nothing less than that virtual houses are possible only after architecture has been dismantled. Of course this is understandable as the logical conclusion of his sense of architecture and the city. When you look back at things *ex post facto* it starts to look like the real architecture was itself merely virtual from the start. The reason for this is probably--and I'm not sure whether one can equate this with Internet space--because something other than physical space has come to seem real to us. So even if the simple dichotomy of the virtual and the real no longer holds, this does not mean that the difference between them has completely disappeared or that the dichotomy has ceased to function. It is precisely where these distinctions become more difficult to establish that somatic sensibilities start to matter.

The "Virtual House" Exhibition

TAJIMA: There was something kind of comical in the "Virtual House" exhibition. This was the question of just how virtual or not virtual this project was. In his criticism of Herzog and ZAERA-POLO's projects, ASADA comments, "They haven't gotten beyond phenomenology. But Daniel LIBESKIND and Peter EISENMANN's projects have reached the level of the virtual." But if we follow the definition of the virtual given by someone like DELEUZE, that "the virtual is the possible," we can see that the virtual is something like an ideal, or an idea. So a piece of architecture is not a built material object, but something on a different dimension which

transcends that materiality. This opposition of the virtual and the real directly translates into the opposition of metaphysics and physics.

If we trace the history of architecture it becomes apparent that it has never been exclusively virtual nor material. It has always involved the emergence of something other out of the material. For example, you have a figure like Daedalus in Greek myth. His name is also a verb which means to transform materials into something completely different. So Daedalus was someone who could change materials into something which completely transcended their materiality and as such he was said to be the world's first architect. This leads us to the conclusion that whether or not it takes concrete form you always have concepts emerging which have drifted away from the moorings of materiality. You can't split them off completely, but at the same time they are not the same as actual reality either. This is what I think DELEUZE is getting at. But this "Virtual House" exhibit is not like this. They were just trying to see "how virtual" they could be. Of course if you go with a deconstructionist strategy it is clear that EISENMANN and LIBESKIND will win. But I think that their clever adaptation of a strategy for deconstruction into the age of the information revolution is far less sound as a method than Greg LIN or Marcus NOVAK's pure and straightforward attempt to link the virtual to the philosophy of architecture.

TANAKA: But that discussion is meaningful only when you set up the twin axes of what DELEUZE calls "the real and the possible" and "the virtual and the actual." But once it all gets reduced to the axis of "the real and the virtual" it degenerates into what I see as a ridiculous contest of what is most real or virtual. I also think that the design condition of "two adults, two children, and a pet" was really quite laughable. I think this kind of condition is itself virtual.

I don't disagree with your argument that architecture becomes Architecture with a capital "A" only when it lifts materials up into something non-material. Certainly modernist architects worked to create something new and non-material by limiting their materials and drying up the possibilities. This is why being virtual alone is nothing new.

Mechanical/Somatic System Design and the Interface

TAJIMA: There was a time when people couldn't get enough of the idea of the "mass-media body," but I think recently we have seen a shift in our approach toward the body. What was once discussed from the perspective of media theory or art is now being discussed in terms of information processing. In general architects in the past took materials or spaces and tried to raise them onto the level of a kind of philosophy as a form of metaphysics. But people working with computers have come from the opposite direction--they have started out with the virtual world and from there have tried to come closer to the concrete world of the body. And that concreteness is even greater than what you find in architecture. They are looking at the body in extremely concrete terms, as if through a microscope. The other day I participated in a symposium call "Technology/Things, Design/Spirit, Architecture/Body" that was held by the Society of Information Processing. One of the participants was a researcher for Sony on body interfaces and he was saying that we should be making the best use of high-tech to make it appear low-tech. By making it look low-tech you can design interfaces which are very bodily and intuitive. At the time I was struck by the fact that they were doing exactly the opposite from what is done in architecture. Architecture has always used low-tech to make itself look high-tech. When I think about it this way I find myself more interested in

the kind of corporeality that people in information processing and programming are looking at than the recent trends in architecture.

TANAKA: The terms low-tech and high-tech seem to reflect a kind of class structure [laughs], but it would also seem that mechanical and somatic systems are being rethought as interfaces. The space of proximity to the body is being constituted in the form of an interface with machines. And it is really interesting to see what happens to space and to the sense of space when you start to see borderless communication between real space and cyberspace (of course this ultimately remains a metaphor).

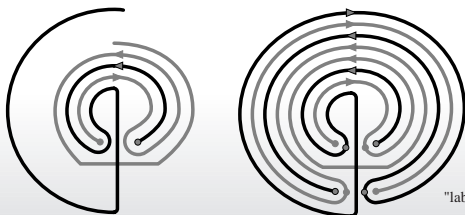
TAJIMA: People doing information processing are trying to read something experiential or intuitive into the body and in this sense the focus on the body for them is something that exceeds the conventional forms of knowledge split between the subject and the object. I think you might even say they are accessing the object as it appears seen through the self, or the subject. And this would seem in some sense to be relativizing the metaphysics of the past.

TANAKA: The transformation of the subject/object relationship is also a transformation of perception--something which is often referred to as the "collective consciousness" brought forth by electronic media. But the sensibility that the media

engender is a very frightening one when you realize that while distant things seem very close, that which is closest to us can also come to feel very far away. In other words you start to get an element of otherness penetrating the subject itself. The tactile closeness made possible by the electronic media has brought that otherness, brought death inside the subject.

STELARC does a tactile performance in which he directly hooks his body up to a computer. This direct adhesion of body and machine is an extreme expression of a certain contemporary fantasy. It may be in primitive form, but this connection of body and machine is no longer simply practical or utilitarian but has to do with unconscious desires. The fact that it has become so difficult for us to live without computers and electronic media is surely not unrelated to these unconscious desires.

The world that emerges at the outer limits of mechanical/somatic systems is certainly full of possibilities, but it is merely an internal space enclosed by eminently manipulable virtual spaces. It is truly a space which lacks exteriority, one conceived on the model of bodily proximity. I can understand the temptation to design down to the last detail interfaces between machines and bodies, but it seems to me that that is driven by a fetishistic desire for the machine which is directly linked to the death drive. Whether we are talking about ZAERA-POLO or Greg LIN, we are only



"labyrinthine dance"

looking at their designs from the outside, and I think this is a very uninteresting cause. We have yet to see or experience what comes after the design of mechanical/somatic systems from the inside. You yourself often use the metaphor of the "labyrinth"--but isn't this also an urban space as bodily sensation only to be experienced from the inside?

The City and the Labyrinth / NIETZSCHE and BENJAMIN

TAJIMA: The concept of the labyrinth itself is a contradiction which seems to have emerged from the inside the city. In historical terms as well we cannot avoid the history of the city if we set out to trace that of the labyrinth. The lines on this diagram represent the routes that people and cattle could traverse together inside the city during the ceremonies accompanying the building of a city. It is a symbol of the "labyrinthine dance" that signified the beginning of the city itself, but it also maps out a locus of movement. In other words, this symbol bears the double-layering that unfolds in contemporary urban issues--so that even as the labyrinth is a site of confusion it is also a bird's-eye plan, a marker of a locus which includes the axis of time. In ancient (Indo-European) cities you always had symbols like this, often inscribed on portals. Beginning with the Renaissance the lines were seen to represent walls and the whole was interpreted as a maze, giving rise to debates about the city/labyrinth. This is all related to the problem of how to establish one's own position, and how to grasp one's own experience. For example, people navigate themselves through the world by locating themselves on a map. Just as the virtual and the real are inseparable, we always need a bird's-eye perspective in order to grasp something--indeed it is only this perspective which makes that grasping possible. This is why it is so problematic that in cyberspace we are able to navigate our way around but can

never get a bird's-eye view. Search engines like "Yahoo!" are perhaps a kind of bird's-eye map of the Internet, but it is extremely important for us to realize that we are living inside this double-layering.

TANAKA: What you're talking about sounds like the labyrinth of Knossos. The image of this labyrinth comes up in NIETZSCHE and BENJAMIN to refer to the idea that the urban experience is one of losing oneself in a labyrinth. It is interesting that the city and the labyrinth for both of these writers are represented as inhuman machines. Just as for Theseus the metropolitan civilization of the island of Crete was a pulsating economic system producing goods even as it was represented as a labyrinth, in NIETZSCHE it appears under the sign of the eternal return--a constantly revolving machine. For BENJAMIN as well, it was an autonomously operating, inhuman machine. In the works of EISENMANN and LIBESKIND in the "Virtual House" exhibition, it is a projection device which constantly gives rise to the virtual; it is architecture as machine. Whether in NIETZSCHE's idea of the eternal return or BENJAMIN's work on the Paris Arcades, this representation of the machine is deeply imbricated with the question of memory. Thus navigating the labyrinth comes to mean memorizing the city with one's body or using one's whole body to recollect the city's memories. The form of the labyrinth was originally a form of notation for dance. By moving one's body in a dance which followed the form of the labyrinth you could replay the most primitive memories--making the labyrinth a mnemonic system. As NIETZSCHE and BENJAMIN strolled through the great cities of the nineteenth century, they must have come

to think of urban memory as labyrinthian. What's strange is that they--and NIETZSCHE in particular--often found themselves remembering the ancient Greece of ARIADNE and DIONYSUS. Thus in urban representation you have a doubling over of the ancient and the modern--and the memory machine that is the city evokes anachronistic representations. This kind of labyrinthian nature of the city also comes up in relation to the Internet and computer technology. The quintessentially machine-like rhythm of an inhuman binary of ones and zeros give rise to a kind of labyrinthian quality. The compulsively repetitive, inhuman and mechanical rhythm of the machines behind the Internet, together with these representations of the labyrinth, are severely delimiting our architectural and urban imagination.

The Internet Flâneur

TAJIMA: I would agree with BENJAMIN in saying that the city is a place where all kinds of memories are woven together in various forms. And I think that the labyrinth is the form where urban memories are tangled together in two dimensions. If we stop to think about how we experience the city in the Internet today I think we can say something very similar. In the myth of Knossos, Theseus manages to kill the MINOTAUR and get back out of the labyrinth by following the thread that his lover ARIADNE had given him to leave behind him as he went in. Theseus' thread is like the links in the Internet. Just as you walk through a city with the aid of various memories, you leap through the Internet thanks to a variety of links, as in hypertext. The comparison here is not metaphorical. If we think of these two scenarios as experiences referenced to the self they are similar and on the same level. I think this way of thinking might give us a new way of conceiving the city.

TANAKA: BENJAMIN's flâneur strolls through the city. But this same kind of activity is not possible on the Internet because links let you jump from one place to another but they don't let you wander through the interstices. The kind of diffusion you have in the arcade experience is lost between the links on the Internet. In the city as a site of memory, you would remember things as spatial representations in your head and then place an item that you wanted to remember in a particular place. So the city itself was the site and system of memory--a place where memories could be internalized through the reading of these sites. As the system of memory itself shifts into cyberspace, the organization of the archives and the control of memory will become less and less spatial. Thus precisely because the metaphor of space has lost its validity we are faced with an even greater need for cyberspace design (or information design).

TAJIMA: If, for a moment, we are to imagine that human memory might be transferred into cyberspace, does this mean that actual physical space could just become expressionless and flat? It is true that the Internet today doesn't produce the same kind of tactile sensations you have in the actual city. Smells, for example, don't exist in the Internet. The world of the Internet has no texture, no smells, and it also lacks the aura of actual physical buildings. But this also means that if you shift the city into the Internet you can suddenly see things that had always been there but that no one had noticed. In this sense, I'm not suggesting that we privilege the cyber exclusively, but simply that we rethink it as one aspect of the double reality that we inhabit. If we do that, the comparison with our bodily experiences will allow us to become aware of things we had never acknowledged.

TANAKA: As you say, the pursuit of cyberspace, or architectural design within it, has led to a complete rethinking of the meaning of architecture and the city. I think this process is similar to the way in which the development of computer technology has led us to rethink our memory systems. In both cases it would seem that the historical production of technology has retroactively brought the natural and the real into greater relief. The problem here is what happens to the human body which is situated as the interface between cyber and real space--and this is one way to understand the problematic of someone like Marcos NOVAK. But it is still not clear how we are to conceive of the relationship between the various kinds of design in cyberspace and the body which is situated outside it. The body itself is being split into the virtual body that appears on the screen and the remaining material body. As long as we rely on older models which take the body for granted this split will either be dissimulated and architectural space will be constructed without giving any special thought to the body, or the virtual body will be understood as more or less the same as the real one and efforts will be made to create a pseudo three-dimensional space inside the computer. And all the while the real problem--that of the split body as interface--will be ignored.

TAJIMA: That's right. There is a part which can be ascribed to ideological strategy, where corporeality and the transformation of social reality is not taken into consideration. In his work *Cyberspace*, Michael BENEDICT has written of four "threads" through which we can think of what cyberspace offers as an extension of architectural and material history. NOVAK's argument was a further elaboration of this which tried to locate architecture within

cyberspace. This was very interesting and in many ways accurate, but the question of the body was, as you suggested, completely absent. Of course it is difficult to know how to evaluate all of this in the end and I think all we can do now is to think of it as an ongoing process.

TANAKA: In relation to the difficulty of mapping, I think we can say that up until now it was possible to maintain two layers of spatial understanding--one in the context of a delimited space on the ground, and the other as a kind of bird's-eye view. But once we move into information space such as cyberspace and out of actual physical spatial arrangements, we face the problem of whether or not it is still possible to have this kind of bird's eye view or transcendent perspective. The difficulty lies in the fact that even if you belong physically to Tokyo, Japan, it is not so easy to say just where you are in cyberspace. As long as the expanse of spaces with which we might affiliate ourselves is not given in Cartesian terms...

TAJIMA: It already lacks a topology, doesn't it.

TANAKA: Exactly. This is why the problem of individual affiliation comes into question. So we are left with the question of whether to think of nations and communities as entities which restrict physical bodies, or whether the "I" is simply an individual who is scattered throughout the network as data. And in the latter case you have the problem of where those individuals are registered as belonging. This is a problem of correspondence among split bodies and as such it is a political issue. It is at this point that we have to ask how we are to represent the space of the community and how that space might be administered.

TAJIMA: The most characteristic feature of the Internet may be its ability to facilitate anonymous movement where the self need not be firmly identified--indeed where it may be impossible to identify. But nonetheless, navigating the Internet clearly requires some kind of road map. The fascination of mapping lies in the possibility it offers of reducing the complex and mysterious environment that surrounds us onto a flat space which can be perceived at a glance. This is what makes it possible for us to get a bird's-eye view of things and to grasp them. But when it comes to actually making such a map it is very interesting to see how this complex network of links--much like a topography--can be given expression on a map.

Cyber Architecture and New Design

TANAKA: Mapping is only possible when you are talking about a limited region--so how do you go about mapping a space without limits? I think it would be quite interesting to try--but I wonder if it would ever really be possible. It is certainly no longer effective simply to replace real space with virtual space. This is because the double layering of subjectivity and transcendent perspective has ceased to function inside cyberspace--something which is related to the impossibility of identifying the self on the Internet. Since it's possible to take on any kind of role there, one can posit all kinds of personalities. And this is once again related to the structural difficulty of occupying a transcendent perspective in order to establish the identity of any given thing. In other words, as long as there is nothing to guarantee a one-to-one correspondence of these various split bodies, it will be impossible to have a "common space" within the cyber community. If cyber architecture were merely a program which used the computer as a tool all we would have to do would be to ask whether or not the program was suitable. But the problem is that the technology that we are referring to as cyber architecture is also connected to the construction of a space which has become

indispensable to us--and as long as this is the case we have to give serious thought to how that space should be designed. I'm not sure whether this is the job for the architect or for the specialist in information processing, but we also have to ask how to design a new spatiality for the body as interface.

TAJIMA: There were many people who tried to transform Tokyo along the lines of an orderly European city. But they never really succeeded because of an array of desires from various quarters which crippled them both politically and economically. Of course simplistic comparisons are risky--but I do think there is something very similar between the situation of Tokyo and that of the Internet. On the Internet you see individual desires growing, self-generating, and changing on a level far outstripping those forces which would try to bring order to it. There was some order and control in the years of communication among personal computers--but the Internet has brought about a virtual stateless zone between nations.

TANAKA: So then you get a common space on the Internet which consists of an amalgamation of the desires of countless individuals. But the information space that unfolds there is so vast that those desires are all in a state of saturation. You even get a situation in which people don't even know what to desire in cyberspace [laughs]. People no longer know what to choose when there are infinite choices and infinite information. In this context one can certainly imagine that one kind of spatial design might involve writing a program which would help people decide what choices to make. So if you want to look at the Internet as an infinite assemblage of irresponsible subjects you could indeed say that it resembles Tokyo--even the whole community of Japan. Particularly in the sense that there is no one who will take responsibility [laughs]. I would like one more time to repeat the main point that I am trying to stress here. I have no problem with projects

that attempt to elaborate the man-machine-system interface on a concrete level. But I find discourses of cyber architecture or the cyber city which are played out on the ideological level to be all too close to an abdication of responsibility. I'm not simply demanding that people become responsible--but I think that this constant rehearsal of the idea of the "virtual" is only an excuse to put off necessary decisions. Putting it in terms of the ZAERA-POLO's input/output program, you can see that if that program were actually implemented, ZAERA-POLO the architect would become completely superfluous. But that program is just a typical piece of layout software. Is this kind of design really where architects want to be going? Here I'd like to ask you about the architect's approach. How, in concrete terms, do you think that the architect should proceed in a situation where he or she may no longer be called an architect?

TAJIMA: That's the most difficult question facing me personally--as well as the other architects of my generation. Cyberspace keeps expanding at break-neck speed before we even get a chance to decide on a stance. I don't think I'm alone in feeling that before I knew it I was completely immersed in cyberspace. Personally I have no intention of depending on cyberspace--but I am keeping a close eye on it because I believe it has something which will change the way we think. By being an observer, rather than a researcher, of cyberspace I would like to become an observer of the field of architecture. In other words I would like to rethink the logic that has informed architecture up until now from the outside. In that sense something like the "Meta-Tokyo Project" was very interesting for me and now I am thinking about how to keep it going.

I think any architect interested in cyberspace is shocked to see how out of step with the times his or her design work is. They may use computers, but architects are still basically doing what they did in ancient times. The traditional drawing of plans has changed a little with the advent of computers--and

now I see a glimmer of hope that the method of designing architecture may actually change for the first time in thousands of years. But I am thinking mainly of a transformation in the mediating space rather than in algorithms. I am very interested to see how our bodily experience of architecture will change and how that experience will be picked up in real space.

TANAKA: Indeed, the rift between cyberspace and real space is a hard one to fill--but it is precisely on that rift that the body is located.

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TANAKA Jun: Born 1960. Theory of Cultural Representation, German Studies. Associate Professor in the Department of Interdisciplinary Cultural Studies of the Graduate School of Arts and Sciences, University of Tokyo. His writings include, *Architecture in the Afterimages: At the 'End' of Modernism*, *Mirraisha*, and *Studies in Modernism* (co-authored) Shichosha.

TAJIMA Noriyuki: Born 1964. Architect. Founded the TATA architectural firm together with TADA Yasushi after graduation from the AA School in 1993. In 1994 he founded YAPPU, an organization using Macintosh equipment to conduct international multimedia activities in planning, graphic design, music, and architecture.