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Perspecta

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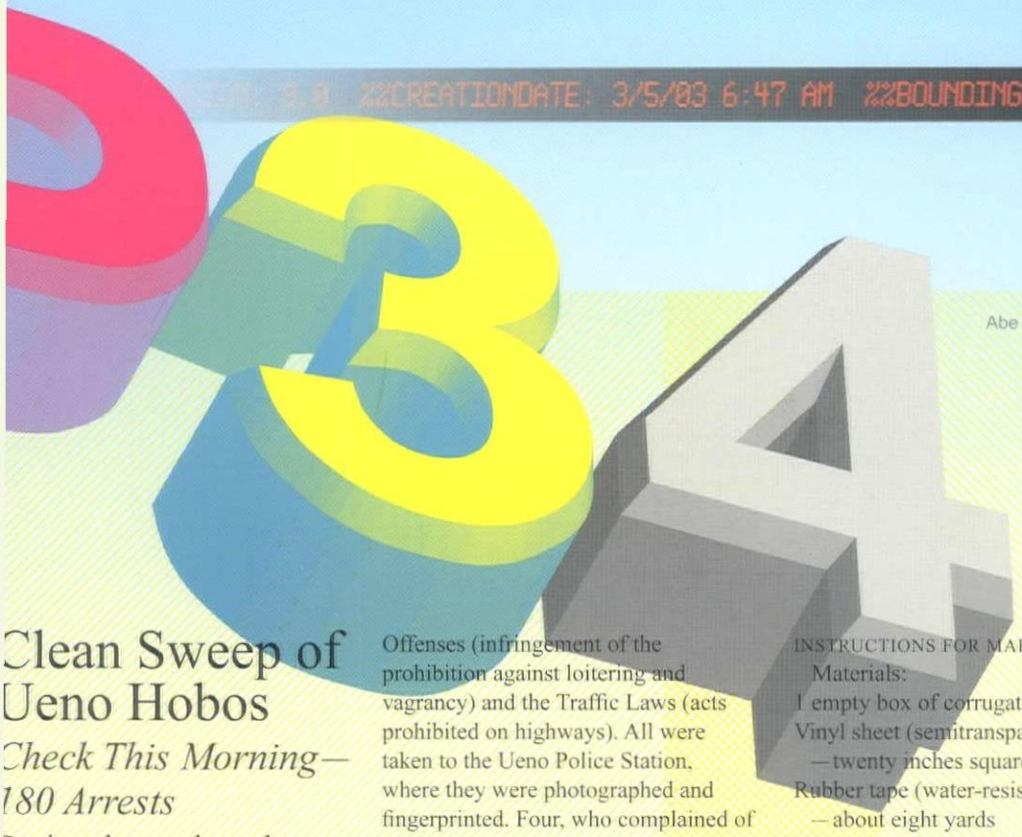
THE YALE ARCHITECTURAL JOURNAL



Abe

Clean Sweep of Ueno Hobos

Check This Morning—180 Arrests

During the predawn hours of the twenty-third, the Tokyo Ueno Police began to arrest those vagrants trying to avoid the cold of the approaching winter by camping in and around the underground passages of the Keisei Line, Ueno Railway Station, Ueno Park, Daito Ward, in the hopes of preventing further shootings by the long-sought criminal no. 109. A total of 180 persons were arrested in the underground passages and behind the Tokyo Institute of Culture, located within the Park precincts. They were arrested on the spot under the Law of Minor Offenses (infringement of the prohibition against loitering and vagrancy) and the Traffic Laws (acts prohibited on highways). All were taken to the Ueno Police Station, where they were photographed and fingerprinted. Four, who complained of being sick, were sent to the hospital via the Daito Welfare Office; nine were sent to a home for the aged. Those remaining were released after signing an agreement not to relapse into vagrancy. An hour later there was every indication that almost all had returned to their former haunts.

MY CASE

This is the record of a box man.

I am beginning this account in a box. A cardboard box that reaches just to my hips when I put it on over my head.

That is to say, at this juncture the box man is me. A box man, in his box, is recording the chronicle of a box man.

INSTRUCTIONS FOR MAKING A BOX

Materials:

1 empty box of corrugated cardboard
Vinyl sheet (semitransparent)
—twenty inches square
Rubber tape (water-resistant)
—about eight yards
Wire—about two yards
Small pointed knife (a tool)

(To have on hand, if necessary: three pieces of worn canvas and one pair of work boots in addition to regular work clothes for streetwear.)

Any empty box a yard long by a yard wide and about four feet deep will do. However, in practice, one of the standard forms commonly called a "quarto" is desirable. Standard items are easy to find, and most commercial articles that use standard-sized boxes are generally of irregular shape—various types of foodstuffs precisely adaptable to the container—so that the construction is sturdier than others. The most important reason to use the standardized form is that it is hard to distinguish one box from another. As far as I know, most box men utilize this quarto box. For if the box has any striking features to it, its special anonymity will suffer.

Even the common variety of corrugated cardboard has recently been strengthened, and since it is semi-waterproof there is no need to select any special kind unless you are going through the rainy season. Ordinary cardboard has better ventilation and is lighter and easier to use. For those who wish to occupy one box over a period of time, regardless of the season, I recommend the Frog Box, especially good in wet weather. This box has a vinyl finish, and as the name suggests, it is exceedingly strong in water. When new it has a sheen as if

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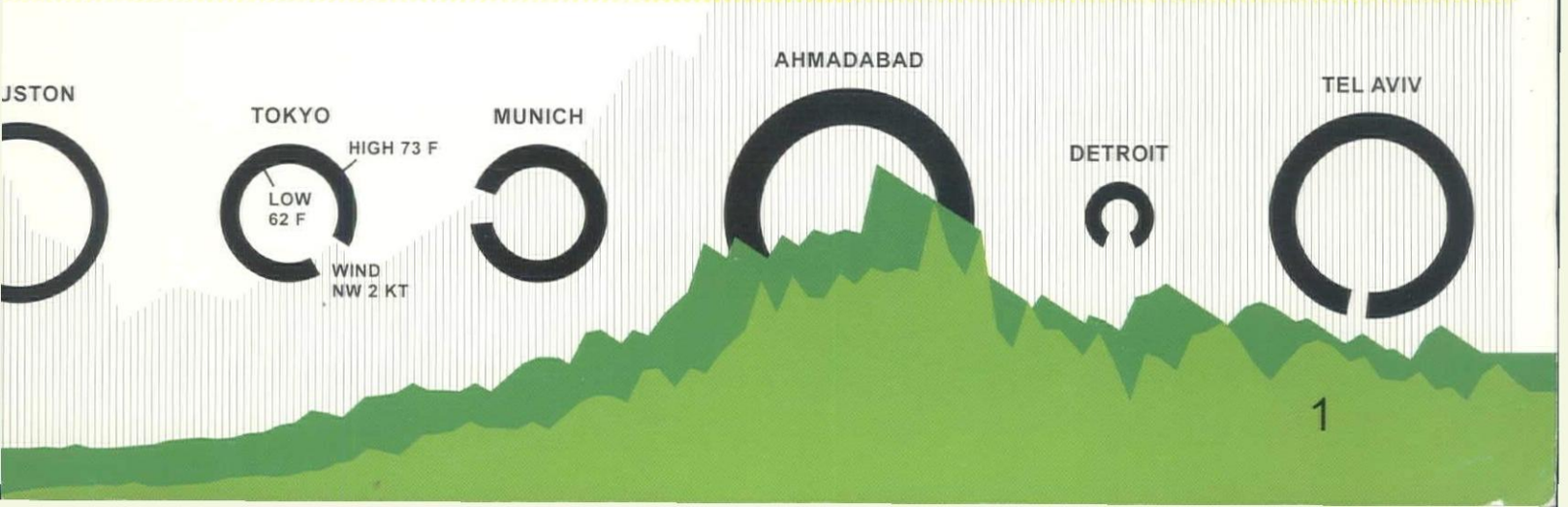

Kobo Abe

The Box Man

oiled, but apparently it produces static electricity easily, quickly absorbs dirt, and gets covered with dust; then the edge is thicker than the ordinary one and looks wavy. You can tell it at once from the common box.

To construct your box there is no particular procedure to follow. First decide what is to be the bottom and the top of the box—decide according to whatever design there may be or make the top the side with the least wear or just decide arbitrarily—and cut out the bottom part. In cases where one has numerous personal effects to carry, the bottom part can be folded inward without cutting, and, with wire and tape, the two ends can be made into a baggage rack. Tape the exposed part of the edges at the three points on the ceiling and at the one on the side where they come together.

The greatest care must be taken when making the observation window. First decide on its size and location; since there will be individual variations, the following figures are purely for the sake of reference. Ideally, the upper edge of the window will be six inches from the top of the box, and the lower edge eleven inches below that; the width will be seventeen inches. After you have subtracted the thickness of the base to stabilize the box when in place (I put a magazine on my head), the upper edge of the window comes to the eyebrows. You may perhaps consider this to be too low, but one seldom gets the opportunity to look up, while the lower edge is used frequently. When you are in an upright position, it will be difficult to walk if a stretch of at least five feet is not visible in front. There are no special grounds for computing the width. These parts should be adjusted to the required ventilation and the lateral strength of the box. At any rate since you can see right down to the ground, the window should be as small as possible.

Next comes the installation of the frosted vinyl curtain over the window. There's a little trick here too. That is, the upper edge is taped to the outside of the opening and the rest left to hang free, but please do not forget to anticipate a lengthwise slit. This simple device is useful beyond all expectations. The slit should be in the center, and the two flaps should overlap a fraction of an inch. As long as the box is held vertical, they will serve as screens, and no one will be able to see in. When the box is tilted slightly, an opening appears, permitting you to see out. It is a simple but extremely subtle contrivance, so be very careful when selecting the vinyl. Something rather heavy yet flexible is desirable. Anything cheap that immediately stiffens with temperature changes will be a problem. Anything flimsy is even worse. You need something flexible yet heavy enough not to have to worry about every little draft; the breadth of the opening can be easily regulated by tilting the box. For a box man the slit in the vinyl is comparable, as it were, to the expression of the eyes. It is wrong to consider this aperture as being on the same level as a peephole. With very slight adjustments it is easy to express yourself. Of course, this is not a look of kindness. The worst threatening glare is not so offensive as this slit. Without exaggeration, this is one of the few self-defenses an unprotected box man has. I should like to see the man capable of returning this look with composure.

In case you're in crowds a lot, I suppose you might as well puncture holes in the right and left walls while you're about it. Using a thickish nail, bore as many openings as possible in an area of about six inches in diameter, leaving enough space between them so the strength of the cardboard isn't affected. These apertures will serve as both supplementary peepholes and be convenient for distinguishing the direction of sounds. However unsightly, it will be more advantageous in case of rain to open the holes from the inside out and have the flaps facing out.

Last of all, cut the remaining wire into one-, two-, four-, and six-inch lengths, bend back both ends, and prepare them as hooks for hanging things on the wall. You should restrict your personal effects to a minimum; as it is, it's quite exhausting to arrange the indispensable items: radio, mug, thermos, flashlight, towel, and small miscellaneous bag.

As for the rubber boots, there's nothing particular to add. Just as long as they don't have any holes. If the canvas is wrapped around the waist, it is excellent for filling the space between oneself and the box and for holding the box in place. With three layers, divided in front, it is easy to move in all ways as well as being most convenient for defecation and urinating and for sundry other purposes.

AN EXAMPLE: THE CASE OF A

Just making the box is simple enough; at the outside it takes less than an hour. However, it requires considerable courage to put the box on, over your head, and get to be a box man. Anyway, as soon as anyone gets into this simple, unprepossessing paper cubicle and goes out into the streets, he turns into an apparition that is neither man nor box. A box man possesses some offensive poison about him. I suppose there's some degree of poison even in a picture of the snake lady on a billboard or the bear man in a circus side show, but even so that can be canceled out by the admission fee. But the poison of a box man is not so simple.

For example, in your case, I'm sure you've not yet heard of a box man. Though there can't be any statistics, there is evidence that a rather

large number of them are living in concealment throughout the country. But I've never heard that box men are being talked about anywhere. Evidently the world intends to keep its mouth tightly shut about them.

Have you ever actually seen one?

Let's stop fooling each other now. Certainly a box man is hardly conspicuous. He is like a piece of rubbish shoved between a guardrail and a public toilet or underneath a footbridge. But that's different from being inconspicuous or invisible. Since he is not especially uncommon, there is every opportunity of seeing one. Surely, even you have, at least once. But I also realize full well that you don't want to admit it. You're not the only one. Even with no ulterior motive, apparently one instinctively averts one's eyes. Yes, I suppose if you were to wear dark glasses at night or put on a mask, you couldn't help being considered some very timid creature or if not that, someone up to no good. All the more so then with a box man, who conceals his whole body; one can hardly object if he is considered suspicious.

Why, I wonder, would anyone deliberately want to be a box man? Perhaps you think it strange, but there are many amazing cases that explain why—trifling motivations that at first glance are not motivations at all. A is a case in point.

One day a box man took up residence directly below the window of A's apartment. Though A tried his best not to look, he did. No matter how he struggled to ignore the box man, he was very much aware of his presence. The first feelings that assailed A were anger and abhorrence toward a foreign body that has imposed itself, irritation and perplexity at

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having his territory encroached on illegally. But he decided to try and wait things out in silence for the time being. Anyway, he thought the neighborhood busybody, nagging about the garbage disposal or who knows what, would take action. But there was no sign that anybody was about to handle the matter. Unable to put up with the situation any longer, he complained to the janitor of the apartment building; but in vain. The box man was only visible from A's window, and anyone who could manage not to be seen would not deliberately move. As frequently as possible everybody pretended not to see him.

Finally A went to the police box himself. When the bored officer told him to fill out a damage report, A said that for the first time he experienced something similar to fear.

"Look here," the officer had snapped. "I suppose you made it clear he was to get out."

There was nothing for A to do but take action himself. On the way home from the police box he stopped at a friend's house and borrowed an air rifle. Once back in his room, he had a cigarette and calmed down; then he looked directly out the window, and as he did so the box man turned the observation slit of the box straight toward him. There were scarcely three or four yards between them. As if perceiving A's inner confusion, the box tilted, and the semiopaque vinyl curtain over the window divided vertically in two. From within, an indistinct whitish eye was firmly fixed on him. A felt a rush of blood go to his head. He flung open the window, and loading the gun, took aim.

But at what? At such close distance he might get the box man in the eye. And if he did that, it would only be trouble later on. It would be enough to shoot him somewhere else just to teach him not to show his face around here again. As A was speculating about his opponent's position in the box and the contours of his body, his finger, still on the trigger, began to grow numb and falter. It would be so much better if the fellow would vacate the premises because of a simple threat. He didn't want a single drop of blood left behind. But he couldn't wait forever. If a simple threat didn't work, it would be useless to try it again. He drew a bead. Again anger welled up within him. Time overheated, burned. He squeezed the trigger. The barrel of the gun, and then the box, made a noise like that of a wet trouser cuff snapped by an umbrella handle.

At the same time, the box gave a big leap. However inventively it may be used, corrugated cardboard is, after all, merely paper. Although it demonstrates considerable strength against general surface pressure, it is weak when stressed at a given point. The lead bullet must have bored into the fellow's body with great force. But neither the screams nor the jeers he had anticipated were forthcoming. Once it had leaped up, the box, again in repose, showed signs within of an extremely slow movement. A was at a loss. He had aimed several inches below and to the left of the line connecting the lower left and the upper right angles of the window. He estimated it to be about where the arm meets the right shoulder. Had he hesitated so long that his aim had deflected? But the box's reaction had been too great for that. An unpleasant thought occurred to him. The man in the box did not necessarily have to be facing front. The lower part of his body was completely covered with canvas, so there was no way to tell exactly what position he was in. He might have been sitting cross-legged, his knees on a diagonal in the box. If so, the bullet might well have grazed the top of the shoulder and hit the carotid artery.

An uncomfortable numbness formed an oval round A's mouth. Running steps in a dream. With bated breath A waited for the next movement. The box man did not budge. No, he had … he was clearly moving. The inclination was definitely increasing not so fast as the second hand of a watch but faster than the minute hand. Was he going to fall over? From the box came a sound like scraping on not fully dry clay. Suddenly the box man arose. He was unexpectedly tall. A heard a sound like that of striking a wet tent. Slowly changing his direction, the box man gave a low cough and stretched. He began to walk, swinging the box slightly right and left. The position of his hips was alarmingly toward the back, perhaps because he was bending forward. A thought the box had spoken, but he could not catch the words. When it got to the street that ran along the building, it disappeared around the corner in the same position. What disappointed A most of all was that he hadn't been able to see the expression on the box man's face.

Perhaps it was his imagination, but to A the surface of the ground behind the fleeing box man appeared darker than elsewhere. Five cigarette stubs had been snuffed out underfoot. An empty bottle was plugged with paper. Two enormous spiders were crawling about inside. One looked like a corpse. Crumpled wrapping paper from a chocolate bar. Then three large, successive blackish stains as big as a thumb. Were they blood stains? he wondered. No, phlegm or spittle doubtlessly. A simpered slightly as if in apology. Well, then, he had hit the target.

In about half a month, A had almost begun to forget the box man. But he was worried about using the shortcut to the station when he went to work, and to avoid the narrow lane, he unconsciously changed his route. Yet he still

Temporary architecture

cta 34

Introduction

On January 15, 1995, the Great Hanshin-Awaji earthquake devastated Kobe, Japan. The homes, businesses, and Catholic church of the Takatori Station neighborhood were destroyed in the resulting fires. In one of many volunteer efforts to help the area recover, Tokyo architect Shigeru Ban designed a temporary church for the community. The church combines structural paper tubes, aluminum sash doors, corrugated fiberglass walls, and a Teflon-coated nylon tent. The crisis of the earthquake and the need for an immediate central location for gathering and distributing information created a programmatic hierarchy unlike that of conventional building. The precedence of immediacy and the assumption of a short life span allowed Ban to bypass typical limiting conditions of architectural production. Designed and built in four months, the temporary structure is still in active use eight years later.

The figures of architecture and urbanism and the surrounding landscapes from which they are constituted are constantly in flux; they are temporary. *Perspecta 34* focuses on the dynamic relations of people and economies—transient bodies (populations crossing borders), unstable power structures (the confluence of ethnic violence and uncertain forms of tenure in cities), fleeting desires (the afternoon stock trade)—that characterize the contemporary condition. The essays in *Perspecta 34* explore emerging conceptions of the city and practices of architecture that are born from conditions of growth, movement, and change. The

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continued to look out of his window as soon as he woke up and first thing when he came home. If only he had not decided to turn in his icebox, in due course he would have been cured of this habit, but …

The new refrigerator, equipped with a freezing compartment, was normal enough, and it came in a corrugated cardboard box. Furthermore, it was just the right size. As soon as the contents were out and it was empty, A began to think of the box man. He heard the whipping sound again. He felt as if the air-rifle bullet had ricocheted from two weeks before. A was confused and decided at once to dispose of the box. But instead he washed his hands, blew his nose, and with great diligence, gargled repeatedly. The rebounding bullet flying about inside his cranium would doubtless set his brain functions askew. After observing the neighborhood for a while, he drew the curtains over the windows and gingerly crawled into the box.

Inside it was dark, and there was the sweet smell of waterproof paint. The place seemed very homelike. A recollection was on the verge of dawning, but he could not grasp it. He wanted to stay like this forever, but in less than a minute he came to his senses and crawled out. Feeling a little uneasy, he decided to keep the box for a while.

The following day, when he returned from work, A cut an observation window in the box with a knife, smiling bitterly, and then tried putting it on over his head like the box man. But he took it off immediately—he might well smile bitterly! He didn't understand what was happening. He viciously and resolutely kicked the box into a corner of the room, but not hard enough to destroy it.

On the third day he more or less regained his composure and tried looking out of the observation window. He couldn't recall what had surprised him so the evening before. He could definitely feel a change, but such a degree of change was desirable. From the whole scene, thorns fell and things appeared smooth and round. Stains on the wall with which he was completely familiar and which were utterly harmless to him … old magazines piled helter-skelter … a little television set with bent antennae … empty tins of corned beef beginning to overflow with cigarette butts … he was again made forcibly aware of the unconscious tension in himself by everything being so unexpectedly filled with thorns. Perhaps he should put aside his useless prejudice about boxes.

The next day A watched television with the box over his head.

THE MIT PRESS CAMBRIDGE, MASSACHUSETTS LONDON, ENGLAND

lens of the temporary often reveals patterns of operations through which architecture might participate in social and cultural change.

Making temporary architecture is a historical practice—festivals temporarily redraw the space and politics of cities, pilgrimages demand accommodation for people crossing political borders—but it is also a particularly modern one. While calling for an architecture to represent a new era, the project of modernity reconstituted our understandings of history and of the present; it suddenly seemed possible to create a utopian space. For many architects and planners temporary objects were the mechanism for this dream. In the 1960s groups like Archigram and Utopie created a climate of rebellion using temporary architecture as a means of questioning the politics of the present. In the spirit of the temporary, architects simultaneously find new buildable forms and places for envisioning new ideas about architecture and society.

The processes of globalization that define the contemporary condition inform much of the content of this journal. Analyses of these processes focus on moments of crisis and war and also on the effects of globalization on the city. In a crisis temporary projects, beyond fulfilling the need for immediate function, cut straight to the performative aspects of architecture. Essays that focus on temporary architecture and the city formulate models for understanding dynamic urban processes. In part, these models construct an understanding of architecture as a reflection of shifting urban dynamics. Altogether, *Perspecta 34* views the contemporary as a fluid practice in which games, intuition, collective

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From the fifth day on, except for sleeping, eating, defecating, and urinating, he lived in the box as long as he was in his room. Other than a twinge of conscience, he was not especially aware of doing anything abnormal. To the contrary, he felt that this was much more natural, he was much more at home. Even in the bachelor's life he had reluctantly led until now, misfortune had turned into blessing.

Sixth day. At length the first Sunday came around. He expected no visitors and had no place to go. From morning on, he stuck to the box. He was calm and relaxed, but something was missing. At noon he finally realized what he required. He went into town and bustled around making purchases: chamber pot, flashlight, thermos, picnic set, tape, wire, hand mirror, seven poster colors, plus various foodstuffs that could be eaten without preparation. When he got home he reinforced the box with the tape and the wire, and then, storing away the other items, he shut himself up in it. A hung the hand mirror on the inner wall of the box—left side toward the window—and then by the radiance of the flashlight he painted his lips green with one of the poster colors. After that he traced, in gradually expanding circles, the seven colors of the rainbow, beginning with red, around his eyes. His face resembled that of a bird or a fish rather than that of a man. It looked like the scene of an amusement park viewed from a helicopter. He could see his small retreating figure scampering off in it. There was no makeup so suitable to a box. Ultimately, he thought, he would become the contents that was right for the container. For the first time he casually masturbated in the box. For the first time he slept, leaning against the wall with the box over his head.

Then the following morning—just a week had gone by—A went stealthily out into the streets with the box over his head. And didn't come back.

If A made any error it was only that he was a little more overly aware of box men than others were. You cannot laugh at A. If you are one of those who have dreamed of, described in their thoughts even once, the anonymous city that exists for its nameless inhabitants, you should not be indifferent, because you are always exposed to the same dangers as A—that city where doors are opened for anyone; where even among strangers you need not be on the defensive; where you can walk on your head or sleep by the roadside without being blamed; where you are free to sing if you're proud of your ability; and where, having done all that, you can mix with the nameless crowds whenever you wish.

Thus it will seldom do to point a gun at a box man.

Contents

Portfolio

imagination, and style emerge alongside conventional architectural approaches as ways to comprehend and shape the temporary landscape.

The design of this journal respects traces of the near past embedded in each letter and pixel, whether it is the chosen typeface of the author, the tactile qualities of imaging and printing processes, or the marginal residue of a chain of electronic, optical, and mechanical transformations. Interspersed throughout the essays is a portfolio of architectural propositions and recordings of transient urban conditions. The projects were chosen and curated as photographic and textual supplements to the essays, and designed as open-ended vectors of potential connection with architectures and ideas that extend beyond the registers of *Perspecta 34*. The temporary buildings, events, and occupations reveal issues of siting, fabrication, and deployment as the projects navigate social and political domains.

The irony of the temporary architectural figure is that it lasts. Conditions that describe a temporary, shifting ground persist, evolve, and repeat in various forms. Though buildings, urban formations, and landscapes might disappear, residual effects remain: physical traces, economic ripples, social relationships. In the moments when the relationship between the figure of architecture and its larger ground is temporary, *Perspecta 34* finds an ecology of shifting conditions and practices from which to draw new tools for the practice of architecture.

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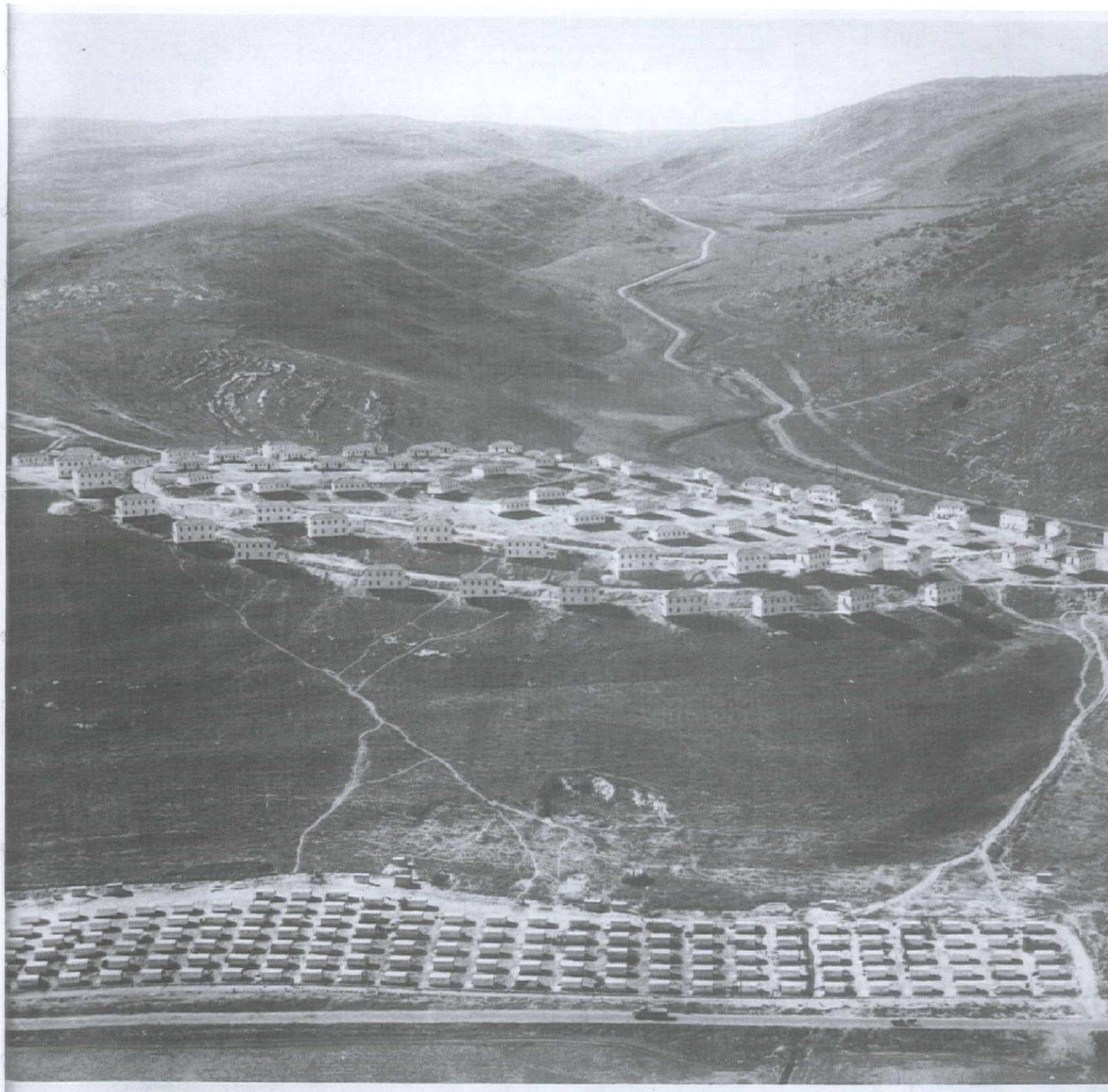


A neighbourhood unit in the new town of Yokna'am, being constructed by the immigrants living in provisional shacks along the road

NECESSITY BY DESIGN

Roy Kozlovsky

↑ Aerial photograph of Yokneam, August 1951. Permanent settlement on top, temporary camp on bottom.

Estimate of Jewish population in Palestine

Almost all are Sephardic
5,000

This essay is an expansion of one chapter of a thesis on Zionist planning, written in the M.E.D. program at the Yale School of Architecture and sponsored by Keller Easterling, the thesis adviser. The thesis is the outcome of prior work as a research assistant for Zvi Efrat, curator of the exhibition *The Israeli Project: Building and Architecture, 1948–1973* at the Tel Aviv Museum of Art, Israel (October 2000), and author of the upcoming catalog complementing the exhibition.

In the three years following the establishment of the state of Israel in 1948, mass immigration doubled its Jewish population from 650,000 to 1.2 million.

The abrupt population growth overwhelmed the state's capacity to supply the newcomers with even the most elementary services of shelter, food, water, employment, education, and health care. Moreover, the newly founded state was in the process of recuperating from the War of Independence (1947-1949), and its financial situation was precarious. In response, the state imposed an austerity regime, rationing the supply of essentials such as food and clothing. It also established a system for the absorption of immigrants in which, upon their arrival, new immigrants were sent to "immigration camps," where they were documented, medically examined, and then resettled. After less than a year of mass immigration, however, all housing options were exhausted, the employment market was saturated, and the absorption system broke down. The camps ceased to function as switches, and immigrants were left living in tents, unemployed, prone to epidemics, and dependent on soup kitchens for their daily subsistence.

The state's failure to absorb the increasing immigration posed a threat to the very legitimacy of existing institutions of power. Minister Lavon warned the government that "one day a hundred thousand such people, cooped up in the camps without any other outlet, could get together and rise up against us, and cause an explosion that would blow away both the government and the Knesset."[1] Fear of popular uprising was real, since disillusioned camp inhabitants attempted to storm the Knesset on several occasions. Minister Eshkol confronted David Ben-Gurion, Israel's first prime minister, with similar alarm:

> In the past three months death stared us in the face.… How could we bring Jews and settle them in tents? … If only we could repress our inclinations and decide to conduct the immigration according to some plan … satisfying both the needs of the immigrants and the needs of the state.[2]

The root of this immigration crisis lay in a strategic postwar policy encouraged by Ben-Gurion to quickly and irreversibly fill the spaces vacated by Palestinian refugees with Jewish immigrants:[3]

> Doubling and tripling the number of immigrants gives us more and more strength.… We have conquered territories, but without settlements they have no decisive value.… Settlement—that is the real conquest! The future of the state depends on immigration.[4]

Adding to the urgency was the assumption that Eastern European countries and Arab states would soon not allow Jews to immigrate to Israel: the Iron Curtain was being drawn, and Arab states were rethinking their policies on Jewish emigration. Restricting immigration, it was thought, would have trapped Jews in those countries, with substantial risk to their welfare.

To solve the crisis of rapid immigration, the Israeli government devised a new method of containing the explosive impact of mass immigration in a provisional urban form called *ma'abara*. Literally meaning "transitional town," the *ma'abara* sheltered incoming immigrants for an interim period until the construction of permanent housing could meet their needs. One hundred twenty-nine *ma'abaras* were subsequently erected during 1950-1951, housing one out of three Israelis and permanently affecting the shape of Israeli society and its identity.

This aerial photograph, often used as an official representation of *ma'abaras*, shows the *ma'abara* of Yokneam situated in the valley and the incomplete New Town of Upper-Yokneam on top of the hill. Footpaths, made by *ma'abara* residents employed in building the New Town, connect the two communities. Upon completion of Upper-Yokneam, the *ma'abara* would be dismantled, as scaffolding is removed from a building. In this scenario, the *ma'abara* functioned as disposable, self-destructing architecture, suspending the urgent need for shelter without compromising the ideal modern design of the final settlement form. The emergency temporal shelter is bound with the vision of modern planning. Contrary to the expectation that temporality and displacement on a national scale would be chaotic and improvised, the situation appears organized, implying a clear design at work. The photograph constructs a functional relationship between the temporary and the permanent in which the prospective settlers of Upper-Yokneam are housed for the duration of construction in the temporal settlement below, which will be dismantled once its inhabitants move uphill. By examining the planned aspects of the *ma'abara*, this essay

1. Lavon to Ben-Gurion, 22 April 1949. Quoted from Tom Segev, *1949: The First Israelis* (New York: Free Press, 1986), 136. The Knesset is the Israeli parliament.

2. On January 2, 1950. Segev, *1949*, 140.

3. In the three years after May 1948, 685,000 immigrants arrived in Israel, and the number of Palestinians who became refugees is estimated at 700,000. See Benny Morris, *The Birth of the Palestinian Refugee Problem, 1947–1949* (New York: Cambridge University Press, 1987), for the controversy surrounding the exact number of refugees.

4. Segev, *1949*, 97.

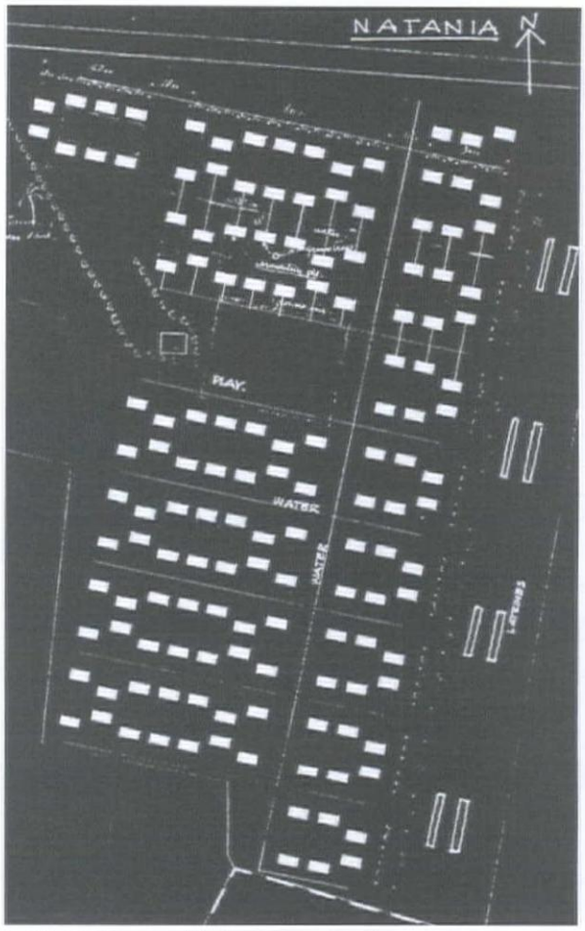
← Immigrants assembling a prefabricated hut, Raanana, 1949.

proposes that although the *ma'abara* was implemented to manage a unique historical event of mass immigration, it was preconceived long before its implementation as a by-product of Zionism's embrace of the project of modernity. Planning was essential for the Zionist enterprise to establish a modern territorial and social order on a conceptually empty site. Even the rapid rate of immigration and the temporary infrastructure to accommodate it were planned as structural elements of the nation-building project. When these scripts were finally activated, they produced sites of conflict. The modernity of the *ma'abara* lies in that tension between utopian planning scripts and their materialization as instruments of power, on the one hand, and the unplanned reality they produced, on the other. The photograph of the Yokneam *ma'abara* ideologically suppresses this element of conflict and failure by conveying a semblance of order and efficiency devoid of human presence, amplified by its symmetrical and abstract composition. To understand how the *ma'abara* actually functioned, and to expose its contradictions, this essay will examine its mode of organization through different scales, from the single prefabricated hut, to the individual settlement and beyond, to the layout of the *ma'abaras* as a national project.

Scaling the *ma'abara*: the prefabricated hut

The Yokneam *ma'abara* was composed of hundreds of single-family tin huts. Other *ma'abaras* were made up of wooden shacks, aluminum cabins, canvas huts (houses with wood skeletons and canvas walls), or tents, imported from Canada, the United States, Finland, and Sweden, countries that had a postwar surplus of temporary shelters. These structures were being circulated around the world to sites of crisis and massive dislocation caused by such postwar developments as the rise of the Iron Curtain and the carving of new nation-states out of dismantled empires. Wholesale suppliers of shelters demanded payment in foreign currency, making these structures as expensive per square meter as permanent dwellings made with local materials and labor. Eshkol's report to the government from October 1951 explains why such an uneconomic strategy was nevertheless pursued:

> In order to build 20,000 dwellings this season, we need time, money, and materials, so nobody will live in tents.… 3,000 huts are nearly completed and in one or two weeks will be populated. An additional 6,000 huts and canvas huts will be ready by next month, and before the rest arrive, we have to prepare foundations and floors. The ships bring the huts and timber for the canvas huts, so we have to coordinate both processes. We have priority in the port for unloading and the help of the army.[5]



Behind the rapid deployment of prefabricated technologies on such a scale lies a political equation: the government either regulated the pace of immigration to the building industry's capacity to construct permanent homes or accelerated immigration beyond its capacity, bridging this gap with the rapid deployment of temporary structures. In such a constellation, the state employed the prefabricated shelter kit as a technology for the acceleration of historical time, bypassing the limitations imposed by conventional construction methods.

The *ma'abara*

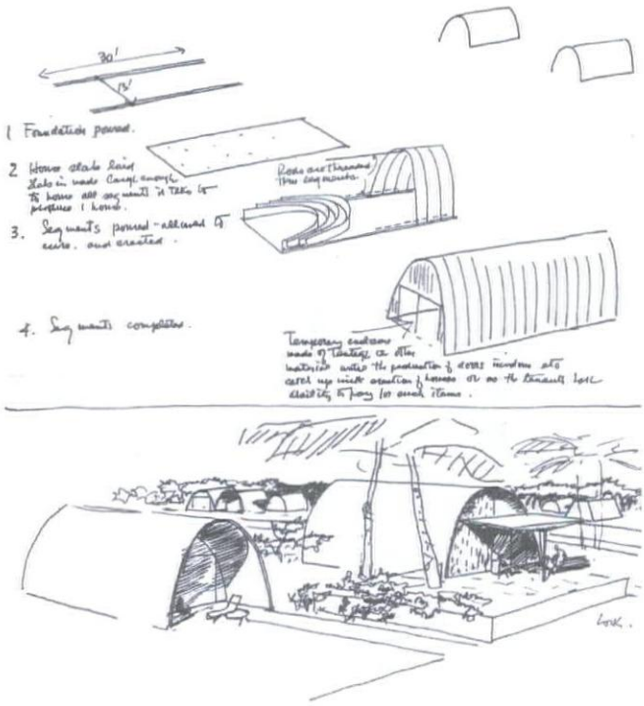
From above, Yokneam and Upper-Yokneam appear similar. Both are composed of one or two types of repeatable structures and are differentiated only by the spacing of the units and geometry of the layout. While the permanent town is built of apartment houses arranged according to planning models of the

5. "The Situation in the Ma'abaras" (in Hebrew), government meeting memorandum 10.11.1951, session 2, article 11 (Israel State Archive).

Most are Orthodo
24,000

← Plan of *ma'abara* and its water system.

→ Louis Kahn's plan for semipermanent shelter, 1948–1949.



neighborhood unit and garden city, the *ma'abara* is composed of single-family huts densely placed in a grid layout. Differences in density and geometry are produced by the contrasting concepts of temporality and economy governing the planning of the two settlements. Planning of the transitory settlement is guided by economic efficiency: because water pipes were in great shortage at the time, the plan of the *ma'abara* was determined in part by the shortest layout of the water supply system. However, the excessive density of the *ma'abara* design also functioned as a planning mechanism, making the *ma'abara* disposable by suppressing the possibility of its inhabitants' settling down and remaining in their huts. This interpretation is based on a comparison between a typical plan of a *ma'abara* and Louis Kahn's unrealized plans for emergency housing from 1949. Kahn was commissioned by the Jewish Agency, a semigovernmental institution responsible for the absorption of immigrants, to prepare plans for the immediate production of forty thousand housing units, as well as plans for the reorganization and mechanization of the Israeli housing industry. Kahn devised an inexpensive method for mass production of semipermanent concrete homes and placed them in a suburban subdivision scheme. The units are spaced on individual lots so they could be enlarged and the *ma'abara* could develop into a permanent community. However, in the typical *ma'abara* the huts are spaced so closely together and with so little open space that the inhabitants would not be able to transform the temporary units (often no more than 160 square feet of floor space) into permanent homes. The design of the *ma'abara* is cunning in its resistance to any deviation from its temporary status, a strategy whose motivation lies in the larger scale of the system of camps.

The system of *ma'abaras*

Of the 129 *ma'abaras*, roughly half were sited in the center of the country adjacent to established towns and cities, where they could benefit from existing systems of services and employment. The other half were sited according to a national plan for population dispersion. Yokneam was located in an empty, undeveloped area, aligned with one of three roads connecting the center of the country to its northern region. The isolated location of the settlement is of strategic importance; it controls a main highway and populates an uninhabited rural region. The system of transition camps was devised to absorb the demographic shock of mass immigration until permanent settlement could be prepared. But the same system gained the authorities time to plan and prepare the future layout of the country, using *ma'abaras* as seeds for a new territorial order.

Immediately after the establishment of the state, a planning department was set up under the direct patronage of the prime minister. Headed by architects and urban and regional planners who studied at schools such as the Bauhaus prior to their immigration, the department was in a unique position to pursue the radical planning ideas of modernism: they had immigrants to settle, a free supply of publicly owned land, and the backing of the political establishment. The planners were obsessed with creating an ideal distribution of population between country and city, an issue high on the international planning agenda and with a special resonance for Israel. In 1948 Israel held the world record for urban concentration with as much as 82 percent of the Jewish population living in three cities, and 43 percent in Tel Aviv alone. Such a population distribution was considered

World War I:
Turkish government expels foreign citizens
85,000

unbalanced and undesirable for a variety of reasons, including defense (concentration of population is perilous under modern technologies of warfare), politics (Jewish settlement was concentrated along the coastal strip, leaving the hinterland without Jewish presence), economics (few big cities were believed to be less efficient and economically stable than many small ones), and public health (hygiene and health are compromised by overcrowding and lack of open space).

Planners feared that immigrants would prefer to settle near existing cities, exacerbating the problem of urban density. By settling the newcomers in a dispersed pattern, the planners would achieve what they regarded as an ideal balance between town and country, as well as colonize the empty parts of Israel. The main instrument for resettlement was the New Town program—the establishment of twenty-eight cities modeled after the postwar British implementation of Ebenezer Howard's Garden City ideal.[6] In this scheme the *ma'abara* functioned as a human reservoir for populating the New Towns, suspending people in space and time until they could be settled permanently. Those who refused to relocate to the isolated New Towns were left to live in temporary conditions well into the 1960s, whereas newly arrived immigrants (after 1953) were immediately supplied with permanent housing.[7]

The insistence on transitory status had a different rationale in the cases of favorably located *ma'abaras*. The land beneath the *ma'abaras* was becoming valuable, and officials from the Housing Ministry suspected that the residents might profit from occupying expensive real estate:

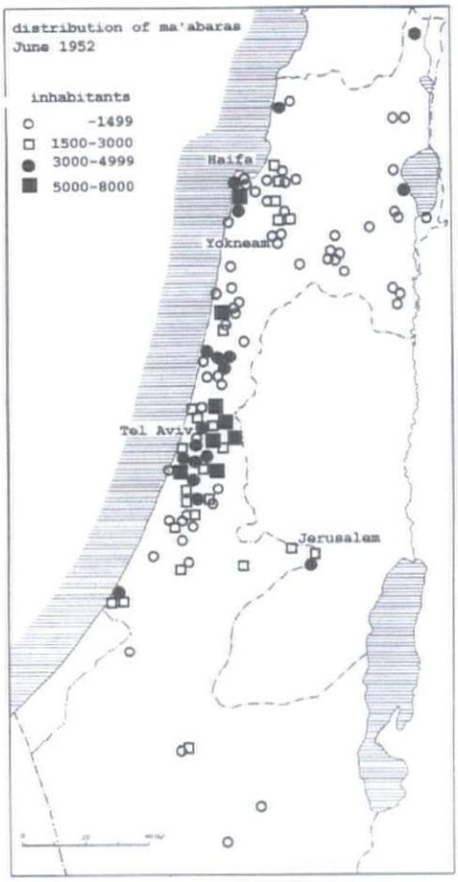
> The *ma'abaras* at the center of the country occupy expensive land adjacent to main transportation routes, and the rapid development of their surroundings has informed its inhabitants of the possibility, which is not unfounded, of gaining possession of the land as a consequence of their long settlement on it.… Until now we have seen the erroneous location of specific *ma'abaras* on expensive sites as wasteful. This waste can develop, in specific lots, into wholesale theft of property.[8]

6. Eighteen cities were established from 1948 to 1951, and ten more before 1957.

7. Haim Darin-Drabkin, "Economic and Social Aspects of Israeli Housing," in *Public Housing in Israel* (Tel Aviv: Gadish, 1959), 33. In 1963 there were still 15,300 people in *ma'abaras*.

8. "Plan to Liquidate Ma'abaras—Permanent Housing for Immigrants," 9.17.1952, doc. G 5558/19 (Israel State Archive).

British Mandate
56,000



← ← An immigrant family from Iraq.

← Map of Israel with location of *ma'abaras* in 1952.

↘ Poster promoting population dispersal, 1951.

The insistence on the temporary status of the *ma'abara* is designed to resolve the contradiction between property rights and the process of claiming possession through everyday use. The design of the *ma'abara* as a legal instrument dispossesses and then displaces immigrants ostensibly according to a national policy for population distribution; however, this was often a pretext for a policy aimed at maximizing profits and political power through the post-demolition distribution of the *ma'abara's* prime real estate to various construction companies and housing agencies.

Populating the image

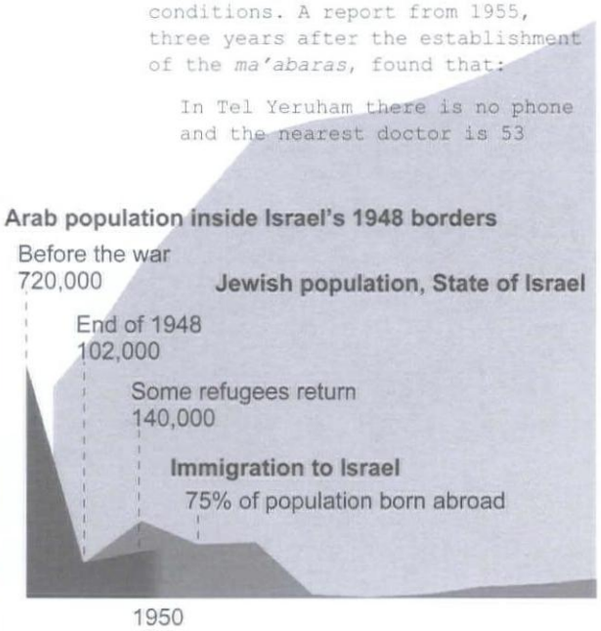
The aerial image of Yokneam suggests that the transition between the temporary *ma'abara* and the permanent New Town is smooth and automated. The remote viewpoint does not convey everyday life in the *ma'abara*. At ground level, life was one of poverty and discontent. Large families had to fit into a standard living space of 160 square feet. Basic civic services such as schools, medical treatment, communications, and sanitation were improvisational or simply nonexistent. Child mortality rates in the *ma'abaras* were so high they doubled the national average. Several investigation committees were commissioned to examine the failure of *ma'abaras* in education, employment, health, and living conditions. A report from 1955, three years after the establishment of the *ma'abaras*, found that:

> In Tel Yeruham there is no phone and the nearest doctor is 53 kilometers away … garbage is collected once every two weeks … in Tira an average of 5.5 people live in one room, in Kurdani 336 people share one shower, in Karkur there is one toilet for 53 people.[9]

That these conditions existed for so long indicates not just a local failure to supply sanitary equipment but a systemic imbalance of power between the immigrants and the state. The inhabitants of the *ma'abara* were dependent on and marginalized by the veteran society and state institutions, a position that allowed the state to act contrary to the will of the immigrants. Some inhabitants of the *ma'abaras* did not fully cooperate with their assigned role in the national dispersal plan and moved from camps in undeveloped regions to more prosperous regions. In these cases, sanctions were used to control their movement, and government-issued work permits prohibited the "independently relocated" from employment. Weiss, the administrator responsible for the settlement of immigrants, proposed strict measures to control independent migration:

> The settlement department is partaking in several measures to stop the migration of new settlers from place to place without our prior authorization. One of the measures recommended is preventing the relocation of food-rationing cards without our approval.[10]

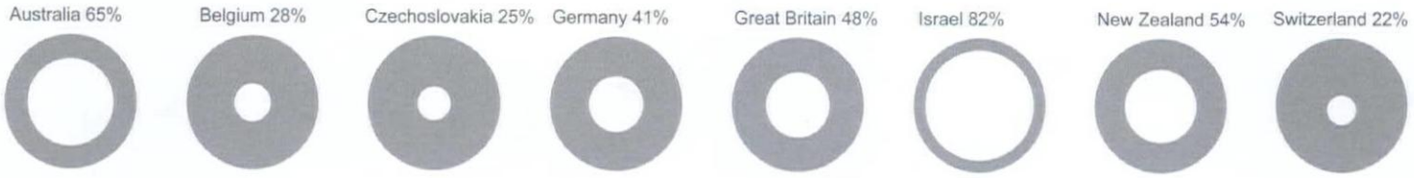
During a period when essential commodities were distributed through a rationing system and work permits were needed to be legally employed, it was possible to bind the population to a specific place and



9. Ministry of Labor, "Committee for the Coordination of Social Services in the Ma'abaras" (in Hebrew), July 1954, 49, doc. G 5558/3903 (Israel State Archive).

10. Dvora Hacohen, *The Grain and the Millstone* (in Hebrew) (Tel Aviv: Am Oved, 1998), 194.

1948: Percent of population living in cities of over 100,000 inhabitants



execute the dispersion policy against the will of the immigrants. In order to function properly, the *ma'abara* had to rely on supplementary systems of control beyond its physical design.

The extent to which the *ma'abara* system was merely supplemental can be discerned from its definition in official state documents:

> The term "*ma'abara*" has not been clearly defined. The *ma'abara* differs from the immigrant camp in that its inhabitants are self-sufficient, while those in the camps received bed and board for free.… The inhabitants of the *ma'abara* live on wage labor. In other words, "*ma'abara*" means a fixed group of settlers residing in temporary dwellings.[11]

This definition centers on the labor status of the *ma'abara*, as one of its original objectives was to relieve the state from the burden of feeding and supporting the idle population of the immigration camps. The first *ma'abaras* were defined as "labor villages," and their inhabitants worked on public projects such as construction, afforestation, and land conservation. Manual labor was regarded not merely as a temporal necessity but as an ideological mechanism for changing the occupational structure of Jewish immigrants from "middlemen" to people living off their own physical labor. The planners of the Housing Ministry held the ideology that

> construction acts as a kind of natural vocational school for new immigrants. The majority of new immigrants come from the middle classes and are not accustomed to physical labor.… Under such circumstances the construction industry acts as an important and desirable transitional stage.[12]

The footpaths connecting the Yokneam *ma'abara* with the New Town were carved into the slope by the process in which immigrants were transformed into manual laborers. Once construction of the New Town was completed, other relief works were organized, of which afforestation offered the main employment for immigrants living in the geographically remote *ma'abaras* at the margins of the national economy.[13] The labor surplus was channeled to pursue a national program of soil reconstruction, an ecological undertaking prescribed by the planners to improve climatic and soil conditions. In his opening address to the second Knesset in 1951 Ben-Gurion interlocked labor and ecology as tutorial and symbolic elements of nation building:

> We must plant many hundreds of thousands of trees on … a quarter of the area of the state.… We are a nation at the beginning of repairing the corruption of generations, corruption which was done to the people and corruption which was done to the land.[14]

The narrative of "repairing" deformations caused by history conceals the use of the *ma'abara* as a mechanism for transforming a heterogeneous group of immigrants into a proletariat. This component of social engineering was possible only in the context of unequal power relations, built into the system to the degree that inhabitants of the *ma'abaras* became objectified as construction material for nation building. This last observation problematizes the historical role of the *ma'abara*: Was it an instrument improvised by the planners and politicians to absorb demographic shocks without compromising their long-term plans for the state, or was it always an integral component of the Zionist nation-building project, calculated to set up unequal power relations that could facilitate the construction of a new type of society in a new land?

Scripting the transitional

A scenario incorporating temporary architecture, mass immigration, and the will to design a society was always already at the beginning of the modern Zionist movement, some fifty years prior to the establishment of the state of Israel. Theodor Herzl (1860–1904), the founder and first leader of modern Zionism, advanced the movement into its modern phase with the 1896 publication of *The Jews' State*. The book, written as a manual for nation building, describes organizational methods for relocating the Jewish population of Europe to another continent and establishing a secular nation-state, for which Herzl supplied an ideal constitutional and social framework. The instant success of the book transformed Herzl from a journalist and failed playwright with little interest in Zionism into the movement's leader. By arming it with the instrument of planning as a method for mastering its future, Herzl's book also transformed Zionism from being primarily a religious sentiment into an effective political movement of

11. Ministry of Labor, "Committee for the Coordination of Social Services in the Ma'abaras."

12. Darin-Drabkin, *Public Housing in Israel*, 78.

13. The pace of afforestation correlates with the construction of *ma'abaras*: In 1949, 2,910 dunams were afforested. In 1950 the figure rises fourfold, to 12,650 dunams, and in 1951 to 56,400 dunams. Shaul E. Cohen, *The Politics of Planting* (Chicago: University of Chicago Press, 1993), 64.

14. Ibid., 61.

← Afforestation of mountains near Yokneam, 1959.

international scope. Herzl and his followers believed they could establish an ideal society, because they had the advantage of starting from scratch, and could avoid repeating the mistakes of other nations. In his follow-up novel, *Old New Land*, published in 1902, Herzl declared it possible to "establish our Society without inherited drawbacks.… Nations with unbroken histories have to carry burdens assumed by their ancestors. Not we."[15]

Contrary to more evolutionary, organic visions of Zionism, favoring slow, gradual acculturation of a Jewish cultural entity in Palestine,[16] Herzl assumed that a nation could be instantly created if only guided by the right plan:

> From the start, everything will be determined according to plan … we will use all the sociological and technical achievements not only of the time in which we live, but also of the future times … with unprecedented chances of success.[17]

The preference for a creationist mode of statecraft over an evolutionist process determined Herzl's concept of planning. Since military strategists and Zionist leaders shared similar logistical challenges—moving millions of people to a new site, together with the infrastructure needed to sustain this demographic shift—Herzl incorporated military and business strategies into his planning. He encouraged rapid immigration into Palestine, a feat he presented as unproblematic, since in comparison to the tasks confronting military planners during the Napoleonic Wars, "We had only to settle half a million people by the autumn."[18]

Herzl's blasé attitude toward such a radical undertaking points to the uncritical integration of military concepts of logistics and planning into the civic sphere. Mobilization of society along military principles was ingrained in the details of Herzl's plan. Anticipating the rapid deployment of the *ma'abaras*, Herzl proposed that the labor force, the first to immigrate, be temporarily housed in prefabricated shelters bought wholesale to cut expenses:

> I ordered five hundred barracks from France—a new kind that could be taken apart like a tent and put together in an hour.[19]

Not only did Herzl script the transient as a logistical necessity to the Zionist project; he also proposed using labor to transform immigrants into citizens. In *The Jews' State* he envisioned that "Jews will enter the new land under the sign of labor" and advocated labor therapy to discipline the masses and elevate them into middle-class values:

> By their labor [the unskilled] will gain the right to own their own houses … if they give evidence of good behavior for a period of three years. In this way we will develop a diligent people who can be readily employed. A man with the discipline of three years' work behind him is ready for life.[20]

From the very beginning the concept of the *ma'abara* was incorporated as a necessary stage in Zionism's creationist mode of statecraft. In the following decades Zionist planners and political leaders compiled an ever-growing body of plans for the future society and its spatial organization, incorporating advanced planning theories such as the garden city, the linear city, cooperative organization of industry, and collective ownership of land. As World War II erupted, planning became urgent. David Ben-Gurion, then the leader of the Zionist movement, rehearsed Herzl's 1896 scenario for accelerated movements of population to save Europe's persecuted Jews. In 1942 Ben-Gurion commissioned a group of experts and civic leaders to prepare plans for the immigration of one million Jewish refugees from Europe in only *ten* days: the D day of Zionism. The experts and politicians were startled by such a scenario:

> Hundreds of thousands of unemployed masses will explode our country … we must transfer immigrants in a planned, ordered method, and not in a catastrophic way.[21]

Ignoring the risks involved in such plans, Ben-Gurion remained adamant, establishing an expert committee to prepare the "Million Plan" for the absorption of mass immigration. The committee planned a system of camps to house the influx of refugees, going into such details as scientifically calculated diets to be prepared in the camp's kitchens.[22] To solve the practical need for a rapid and efficient housing program, the Jewish Agency looked into the most advanced technologies, negotiating the purchase of large quantities of the

15. Theodor Herzl, *Old New Land* (New York: Herzl Press, 1987), 78.

16. Such as Ahad Ha'am's brand of "cultural Zionism," which proposed to establish a cultural center in Palestine rather than a nation-state, or Franz Oppenheimer's plans for incremental settlement.

17. Theodor Herzl, *The Jews' State* (Northvale, N.J.: Jason Aharonson, 1997), 194.

18. Herzl, *Old New Land*, 228.

19. Ibid., 205.

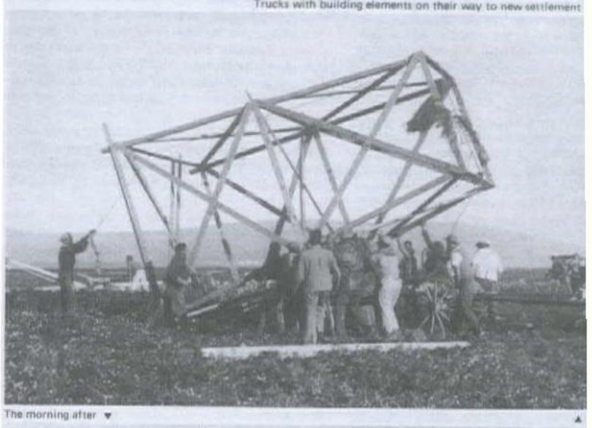
20. Herzl, *Jews' State*, 156. Herzl was indebted to Edward Bellamy's *Looking Backward*, and especially his idea of the industrial army, in which labor is a duty that gains the citizen a right to society's collective goods.

21. Kaplan, an engineer and later the first Treasury minister of Israel, to Ben-Gurion, in Dvora Hacohen, *From Fantasy to Reality: Ben-Gurion's Plan for Mass Immigration, 1942–1945* (Ministry of Defence Press, 1994), 114.

22. Ibid., 130.

→ "Tower and stockade": a settlement erected in one day. After two years it assumes its ideal form (1936–1938).

Trucks with building elements on their way to new settlement



The morning after ▼

Standard Panel House, designed by Konrad Wachsmann and Walter Gropius.[23]

Parallel to its grand designs and epic scripts, the Zionist movement held several small-scale experiments putting temporary architecture to the test. An illuminating case is the "tower and stockade" technology for settlement, a technique for building cooperative villages invented during the Arab rebellion of 1936-1939.[24] To establish a settlement in hostile territory against the military resistance of the Arab population, the fortified settlement nucleus was prefabricated, transported, and assembled in one day on-site. At a later stage the barracks and tents inside the compound were dismantled, and the settlement attained its utopian form. The test proved that temporary scaffolding could be removed without leaving a trace, with temporary architecture mediating between military objectives and utopian schemes.

The performance stage

The performance of the immigration script on a mass scale did not follow the results of small-scale rehearsals, and the assumption that the scaffolding of the *ma'abaras* could be removed without leaving a trace proved erroneous. Most of the *ma'abaras* were dismantled in the 1950s, and their inhabitants were housed in permanent settlements, but the temporary stage produced unforeseen long-term distortions in the structure of Israeli society. Residents of the *ma'abaras* received inferior medical and educational services and suffered from poverty and endemic unemployment, with the jobs offered mostly being manual and temporary. Their integration into the economy and political structure was slowed, if not blocked, resulting in what is known today as "the second Israel." The *ma'abaras* spatially separated the veteran citizens and the immigrants, producing two, unequal societies. Because the ethnic composition of the *ma'abaras* was predominantly Sephardic immigrants—72 percent versus 22 percent Ashkenazi[25]—the uneven ratio produced the correspondence between class and ethnicity that still holds in Israel today; the *ma'abara* came to symbolize the fall and humiliation of the Sephardic Israeli by the Ashkenazic establishment. The author Shimon Balas, in his 1964 novel *The Ma'abara*, summed up the experience of Iraqi immigrants living in the *ma'abaras*:

> It appears to me that since the Babylonian exile, never such a horrible holocaust has been inflicted upon the Jews of Mesopotamia as the holocaust it presently suffers. This enlightened and ancient community was crushed to dust and dispersed upon desolate and foul places called *ma'abaras*.... Is this not exile?[26]

The New Towns project, for which the *ma'abaras* functioned as scaffolding, did not develop as expected. The attempt to instantly create an artificial territorial order composed of small dispersed towns and settle them with the marginalized population of the *ma'abaras* countered the general trend in the economy for concentration and centralization. The ideally designed cities never performed as expected, and struggled economically and demographically for decades to come. After half a century the list of the most impoverished and unemployment-stricken cities in Israel is still composed mostly of these New Towns. The residues of the temporary are long lasting, unlike the optimistic promise of the image of Yokneam with which we began.

Cause and effect

The event of the *ma'abara* is commonly misunderstood as a result of emergency conditions; however, these emergency conditions were anticipated, even planned. From its conception, the transitional mechanism was an organizational mode

23. Gilbert Herbert, *The Dream of the Factory Made House* (Cambridge, Mass.: MIT Press, 1984), 304 and 375, n. 22.

24. The Arab rebellion was aimed against British rule over Palestine and its support of Zionism.

25. Miriam Kachensky, "The Ma'abaras," in *Immigrants and Ma'abaras* (in Hebrew), ed. Mordechai Naor (Jerusalem: Yad Ben Zvi, 1986), 75.

26. Shimon Balas, *The Ma'abara* (in Hebrew) (Tel Aviv: Am Oved, 1964), 51.

for managing population in time and space, a logistical instrument in an overall scheme for controlling and accelerating the nation-building process. Zionism's planning consciousness permitted it to calculate rationally the risks involved and produce an event that few societies would ever attempt: doubling the population in three years, managing hundreds of thousands of immigrants in military-like conditions, and assuming that such traumatic events could be contained without lasting negative consequences.

The *ma'abara* has a dialectical relation to temporality: it delays or suspends time by deferring the need to settle down, but it also accelerates time by enabling immigration beyond the state's capacity to absorb. Processes deemed too slow, such as the development of an economic infrastructure that would attract voluntary populations to the hinterland and New Towns, were bypassed by the mechanism of the *ma'abara*. A similar dialectic lies in the relation between planning and reality. Planning is commonly perceived as an auxiliary discipline, making the process of change and modernization more efficient and tolerable. But planning can become something altogether different; it can accelerate the pace of social and geographic change to the verge of failure, inducing new kinds of risks and disruptions, producing chaos rather than order.

The Israeli case is exceptional in the discourse of modern planning due to its starting point. The identity of the Zionist movement was constituted on the desire to become modern and on the ambition to lead the project of modernity. In Herzl's words, "We are a modern people already, wanting to become the most modern among peoples."[27]

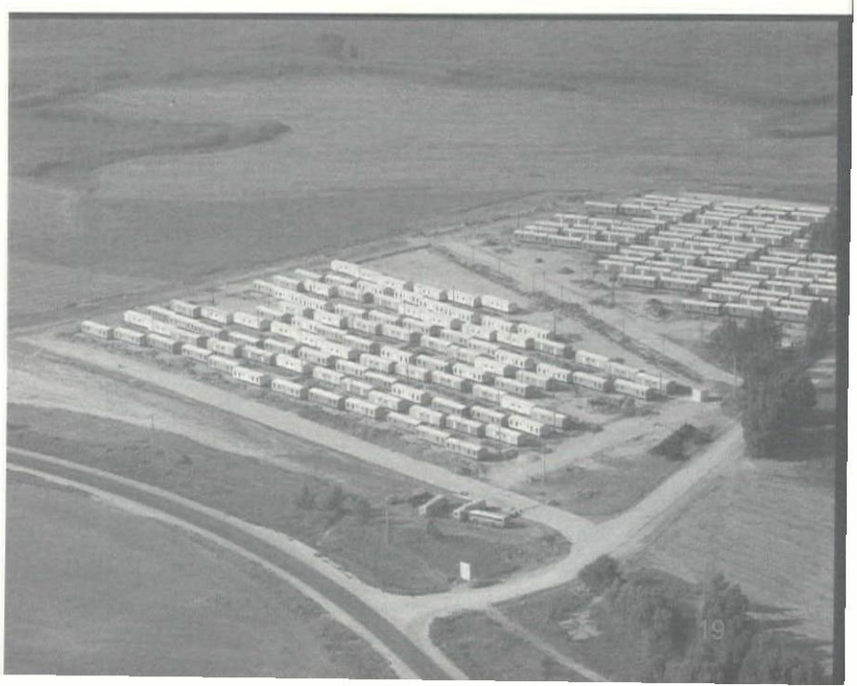
Unlike any other modern movement, Zionism was in the "privileged" position to plan a society from scratch; the Jewish state existed in theory well before it was established. The type of planning that evolves from such a position seeks to liberate itself from the constraints of time, space, and agency. The category "transitory urbanism," to which the *ma'abara* belongs, functions as an instrument for radicalizing planning. It liberates politics from the slowness of architecture and the resistance of its subjects. This sense of planning omnipotence, rather than negotiating the tensions inherent to the project of modernity, contributes to their accentuation to the point of failure, as demonstrated in the history of the *ma'abara*.

The 1990s revival

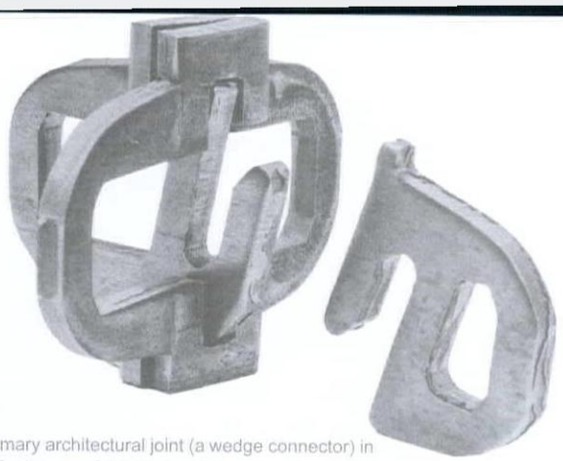
During the early 1990s, as a side effect of Gorbachev's perestroika, immigration of Jews from the Soviet Union to Israel was legalized, instigating an immigration wave similar to that of the 1950s and resurrecting the concept of the *ma'abara*.[28] The economics and demographics were quite different: Israel was substantially more developed and prosperous, and the new group of immigrants composed less than 10 percent of the population. Nevertheless, the absorption of these immigrants, more than half a million strong, followed a similar strategy. Prefabricated cabins were imported en masse from the United States, and new *ma'abaras* were built on the fringes of cities or next to the New Towns of the 1950s. The same social conditions of dependence, poverty, and marginality were re-created, although this time the immigrants were able to escape the system and settle according to their individual preferences. Several of these new *ma'abaras* exist to this day, demonstrating the continuing function of the *ma'abara* as an instrument of temporal and spatial control a century after its theoretical conception.

27. Herzl, *Jews' State*, 195.

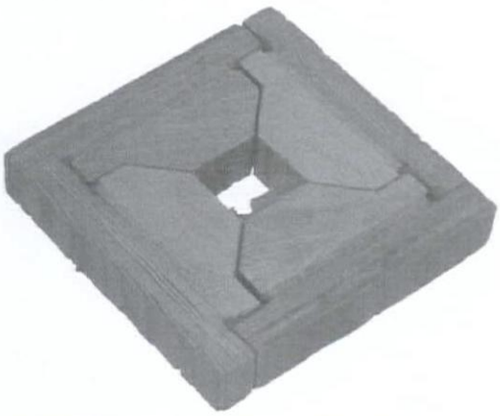
28. In the years between 1990 and 1996, as many as 650,000 emigrated from the former Soviet Union into Israel, half of that number in 1990–1991 alone.



→ A 1990s *ma'abara* for Russian migrants, next to Sderot (a New Town established in 1954).

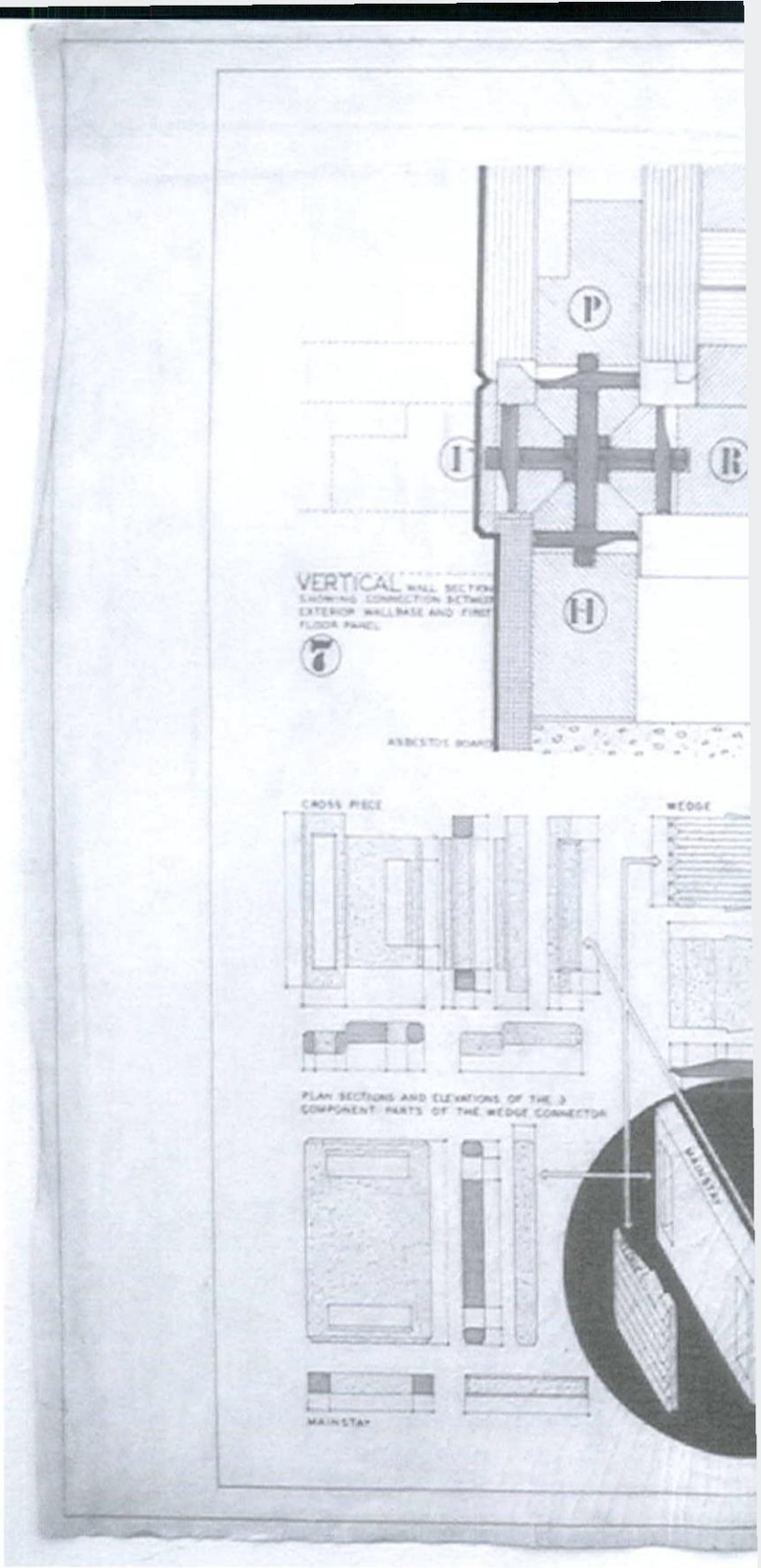


↑ Primary architectural joint (a wedge connector) in the final stage of development.



↑ Four panel corners brought together by a wedge connector.

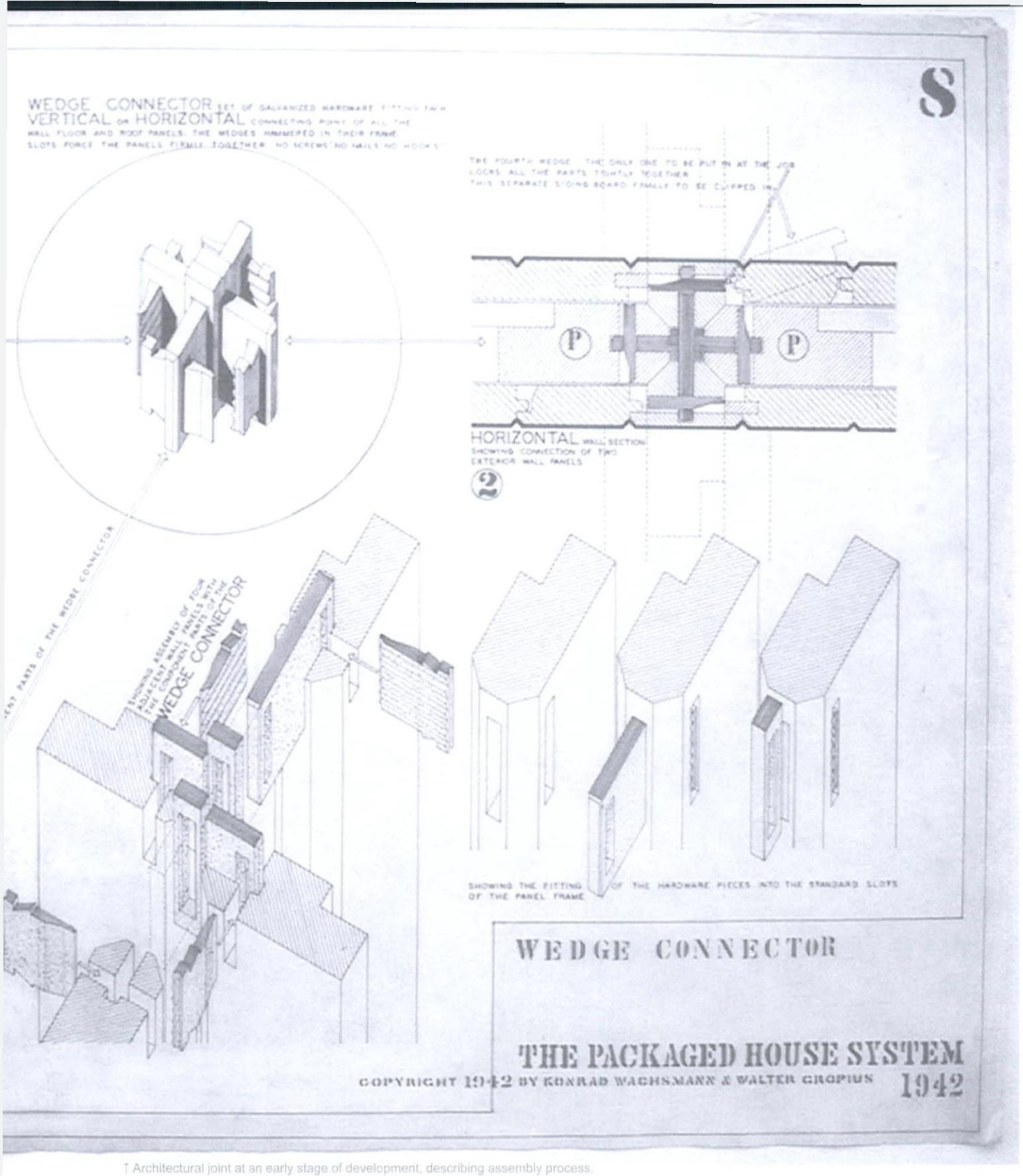
↑ Disassembled architectural joint.



THE PACKAGED HOUSE SYSTEM (1941–1952)
Konrad Wachsmann and Walter Gropius (curated by Michael Tower)

In the Packaged House System, Konrad Wachsmann and Walter Gropius directly applied the ideals of universal architectural space to the crowded field of manufactured housing. Drawing from experience with industrialized building in their native Germany, the two architects saw great potential to capitalize on recent U.S. government efforts to provide immediate housing for war veterans.

Wachsmann and Gropius attempted to use a serialized network of joints to create a flexible design and construction system. The primary joint of the Packaged House is a discrete fastener that connects modular panels from any primary axis; without nails or screws, the same joint provides connection between floor, wall, and roof panels. Not

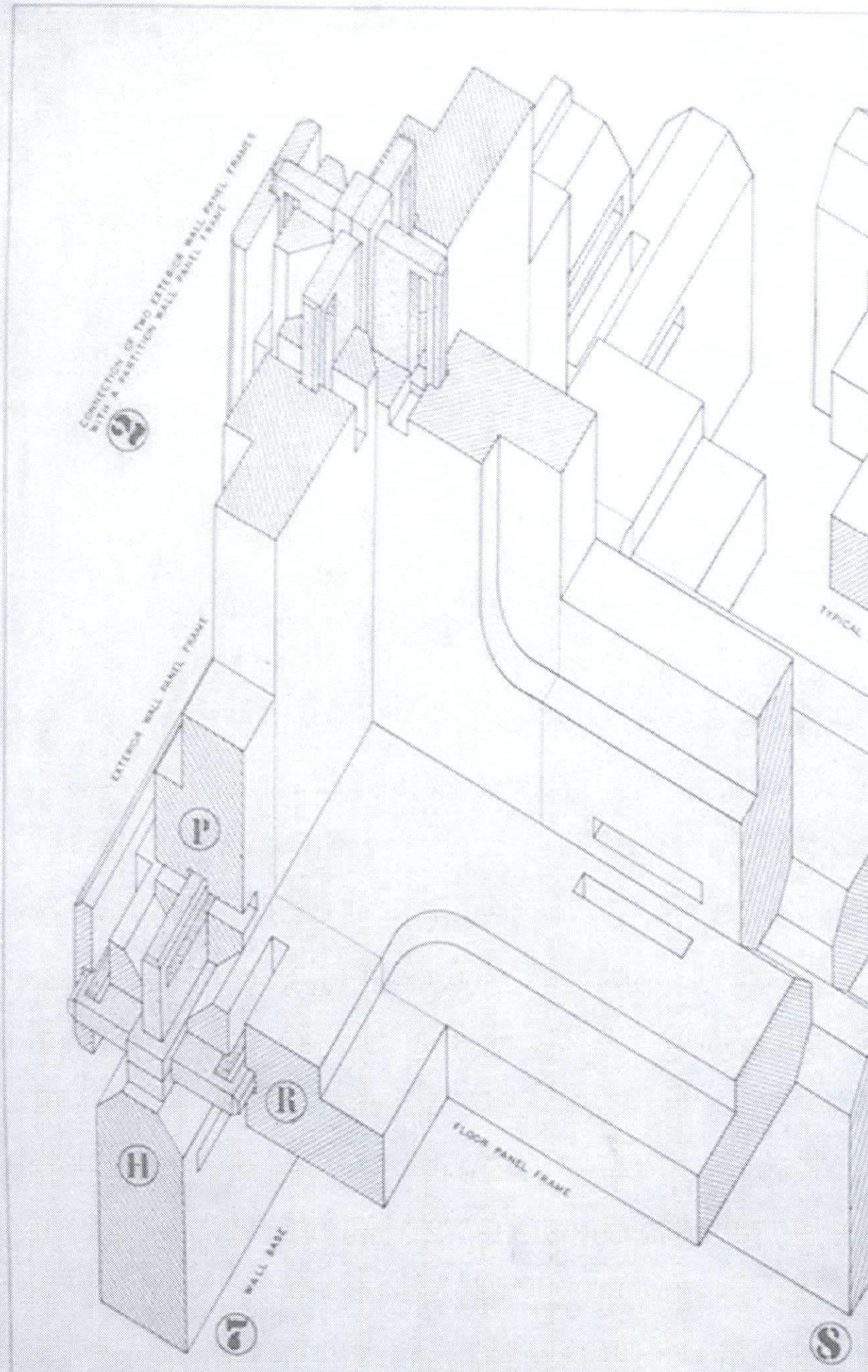


† Architectural joint at an early stage of development, describing assembly process.

unlike the efficiency and flexibility of balloon and deck framing, the serial connections for the Packaged House System promised to deliver the physical and economic catalyst for the larger modernist ideal of the modular.

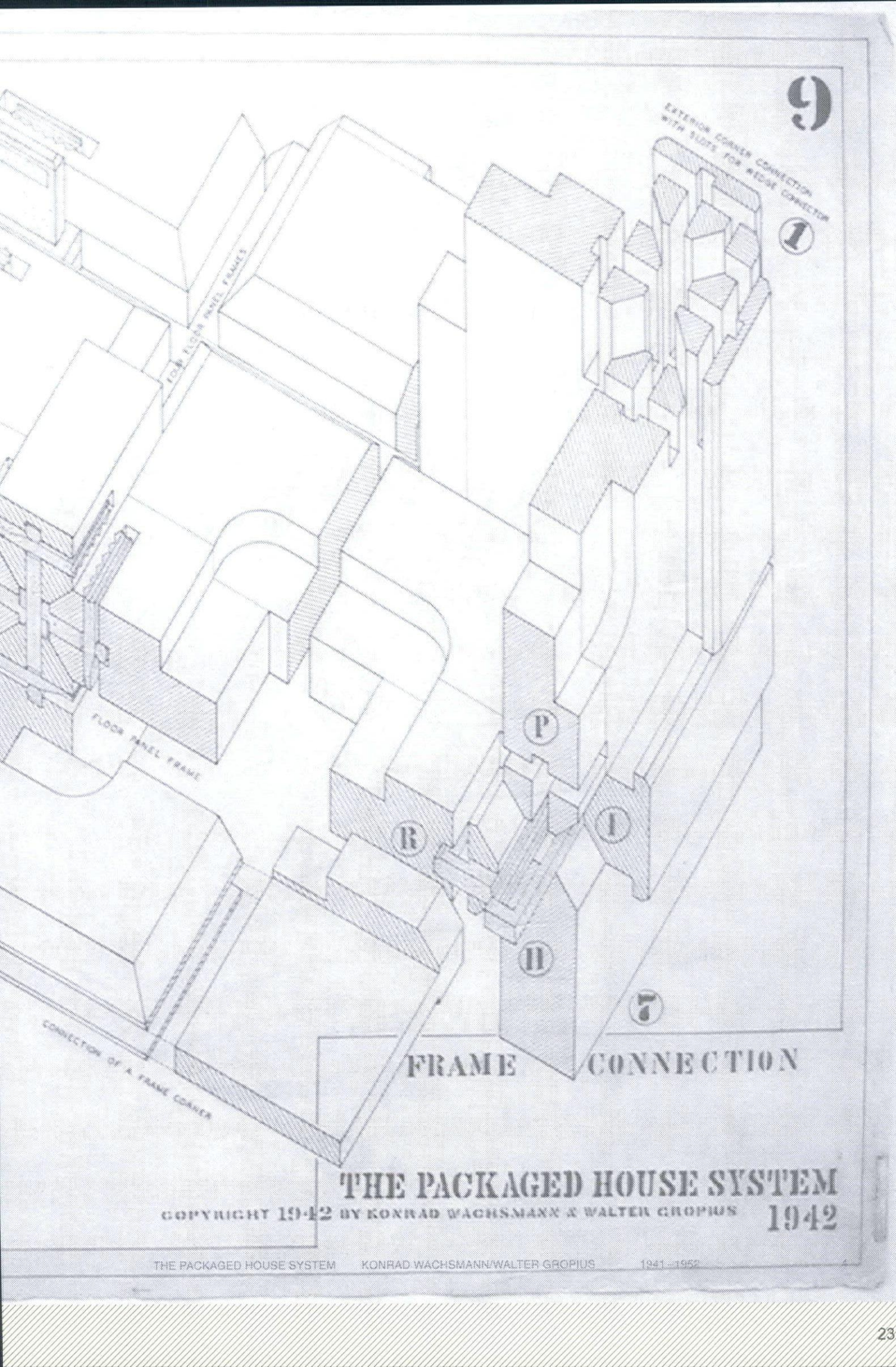
From the outset Wachsmann and Gropius foresaw a system that could be repeated at larger scales and in more complex configurations. Unfortunately, as the Packaged House System developed, the structure turned from a house as a universal spatial construction into a more spatially limited and proprietary structure. Although the system met with both financial and critical failure, the drawings and details that follow illustrate the hope and aptitude that the two architects applied to one of manufactured housing's greatest possibilities.

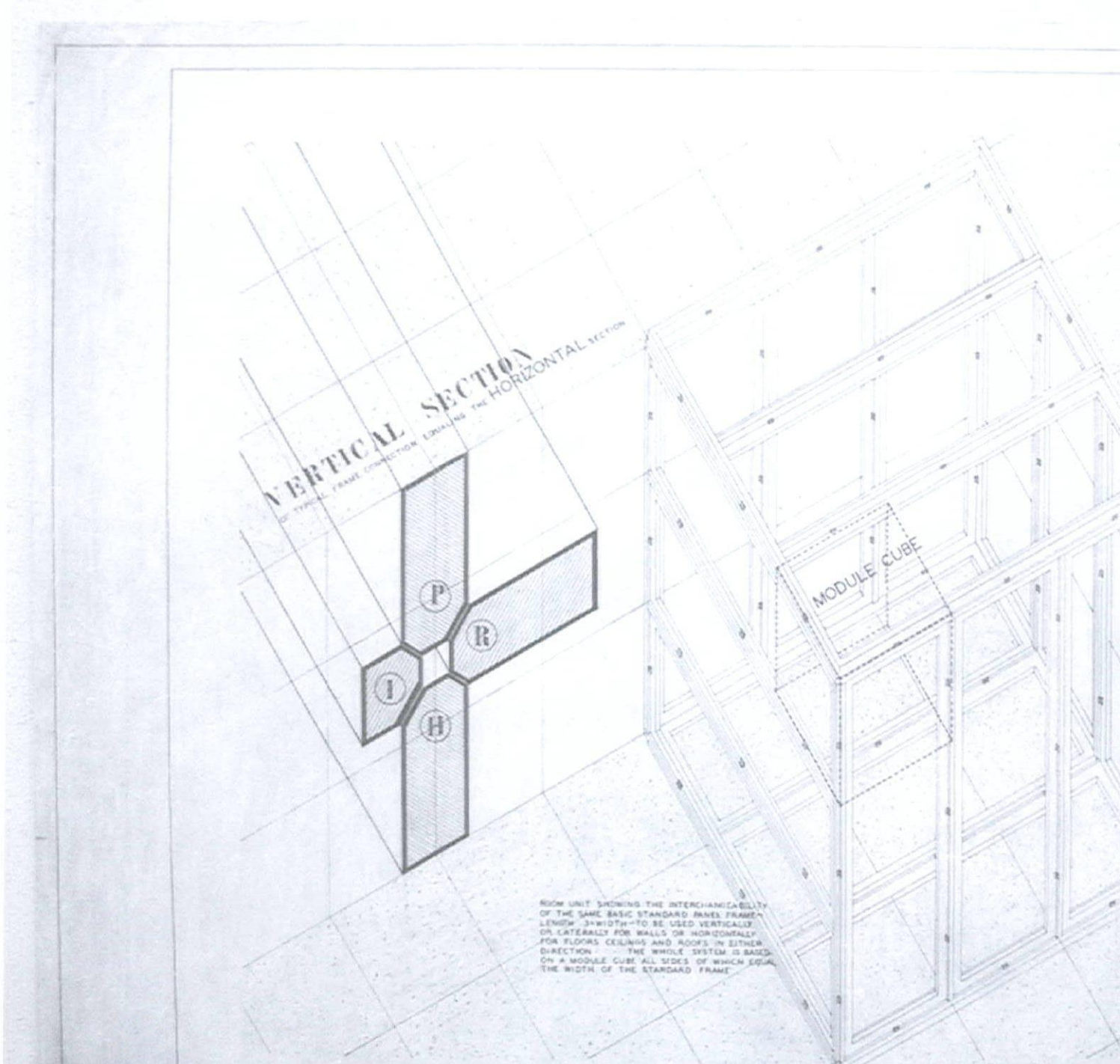
Michael Tower's research on Konrad Wachsmann has been generously supported by a grant from the Graham Foundation for Advanced Studies in the Fine Arts.



THE PACKAGED HOUSE SYSTEM KONRAD WACHSMANN/WALTER GROPIUS 1941–1952

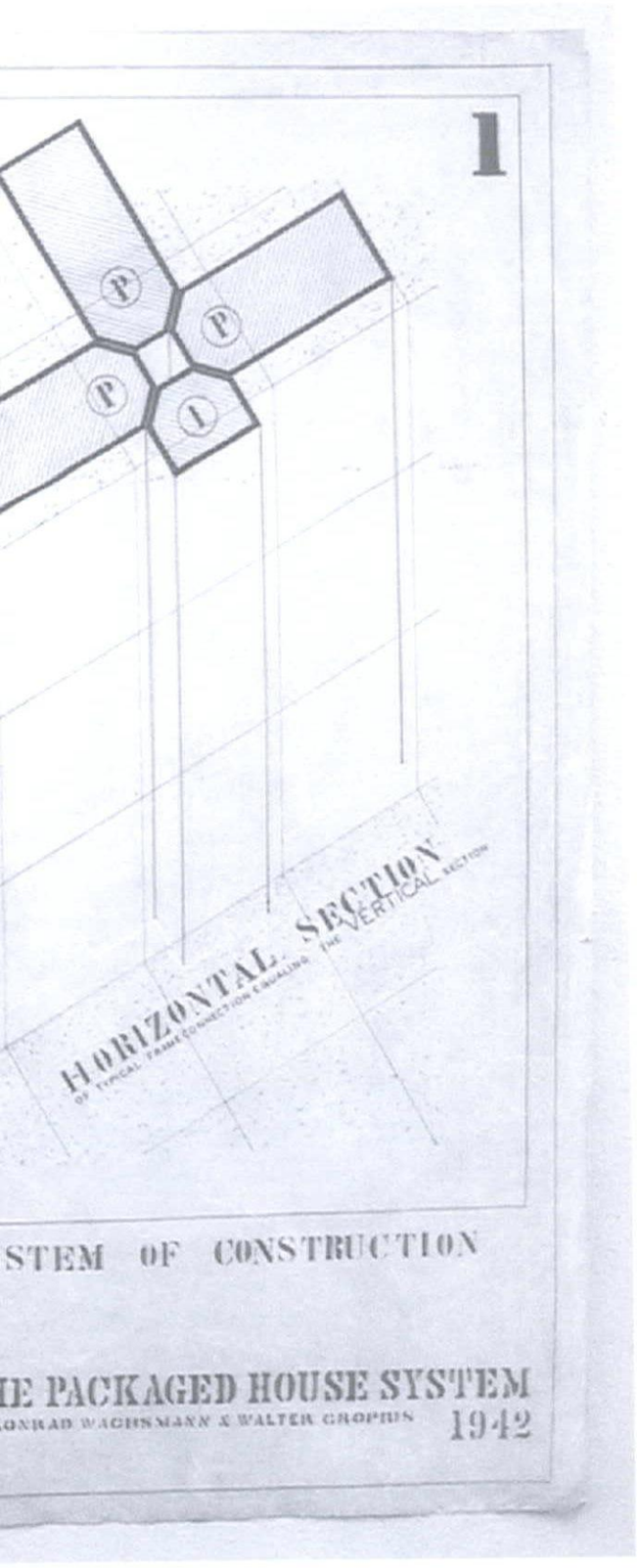
† Axonometric of connections at three critical axes

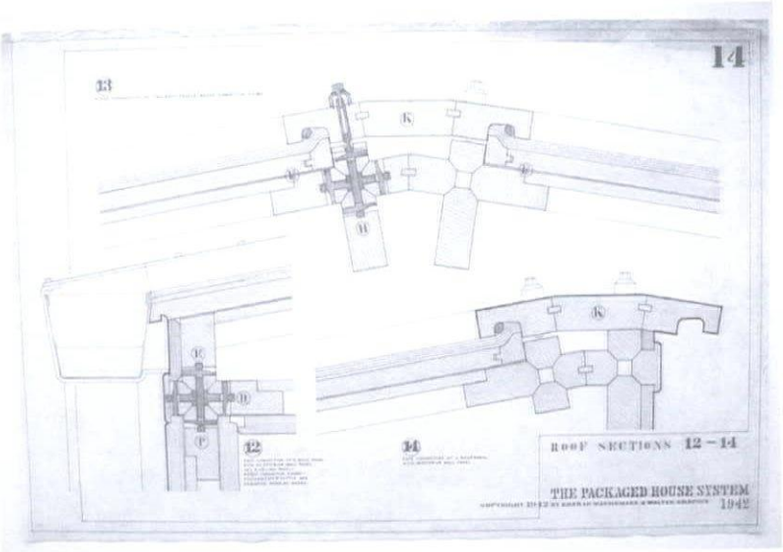

9
EXTERIOR CORNER CONNECTOR WITH SLOTS FOR REAR CONNECTOR
1
FLOOR PANEL FRAMES
FLOOR PANEL FRAME
P
R
I
H
7
CONNECTION OF 4 FRAME CORNER
FRAME CONNECTION
THE PACKAGED HOUSE SYSTEM
COPYRIGHT 1942 BY KONRAD WACHSMANN & WALTER GROPIUS
1942

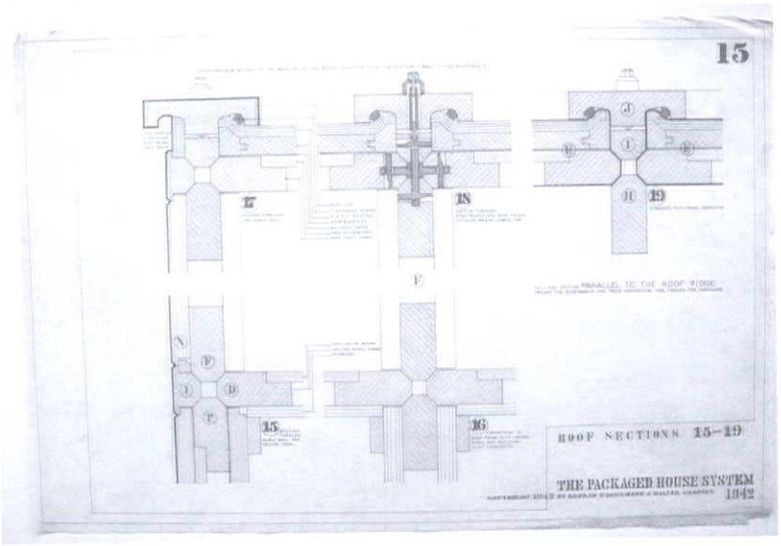


† Axonometric of modular system.

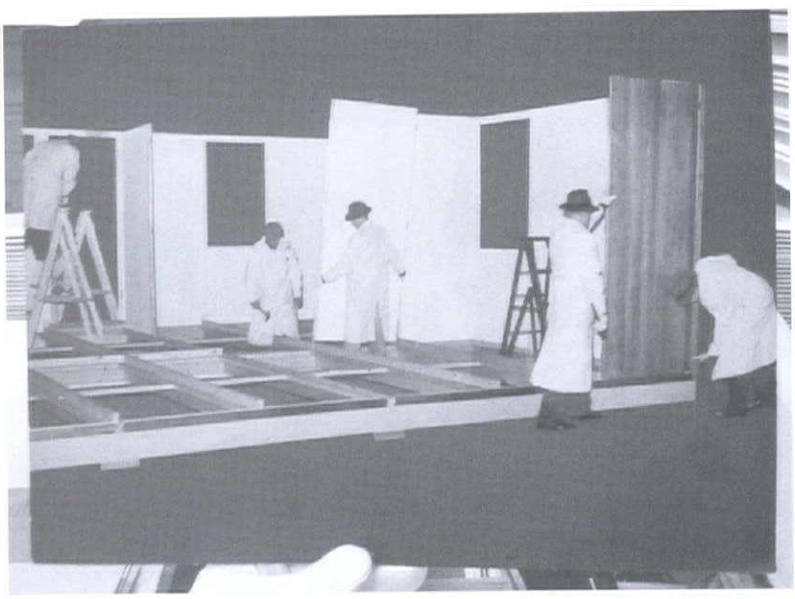
5 THE PACKAGED HOUSE SYSTEM KONRAD WACHSMANN/WALTER GROPIUS 1941–1952



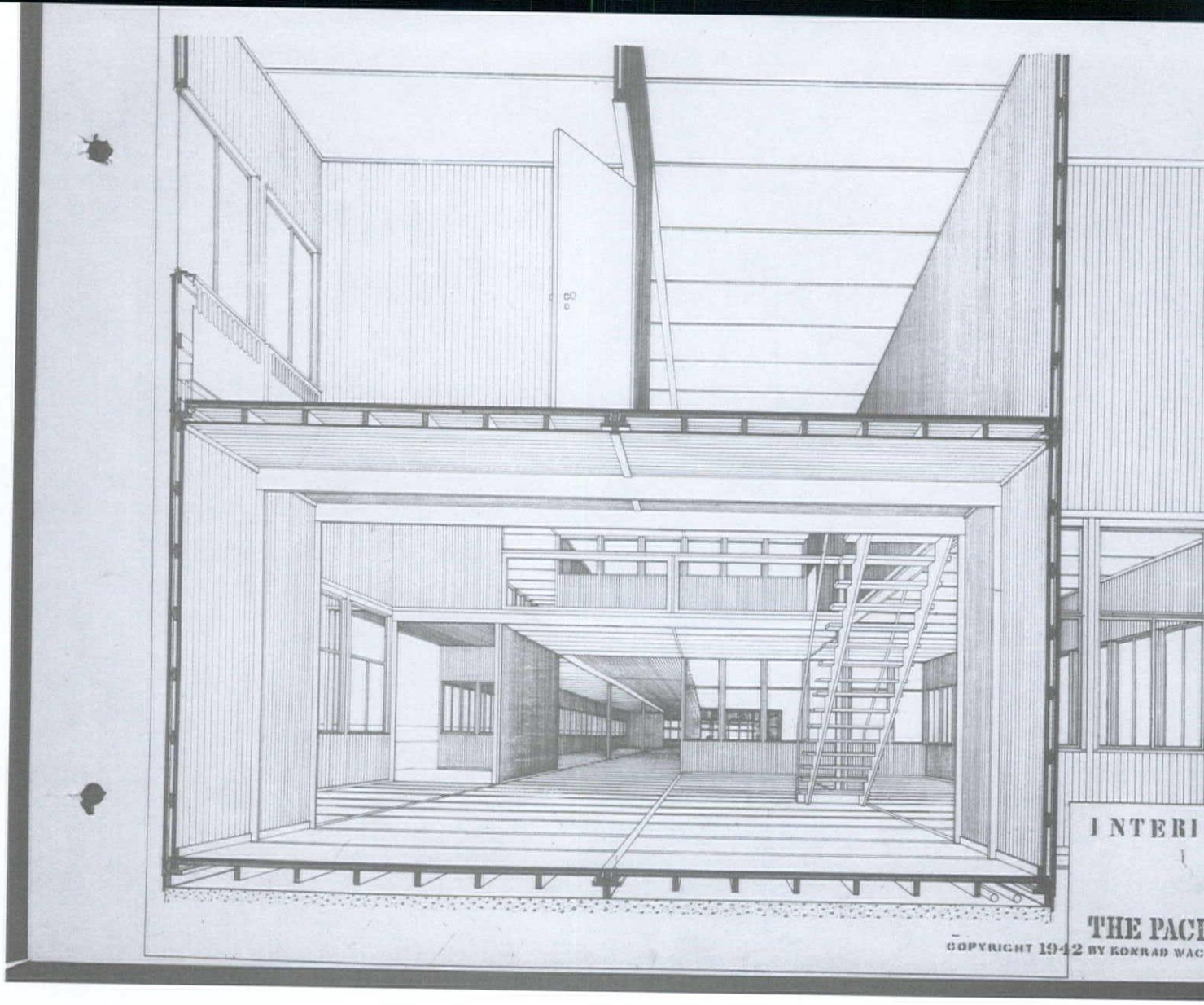


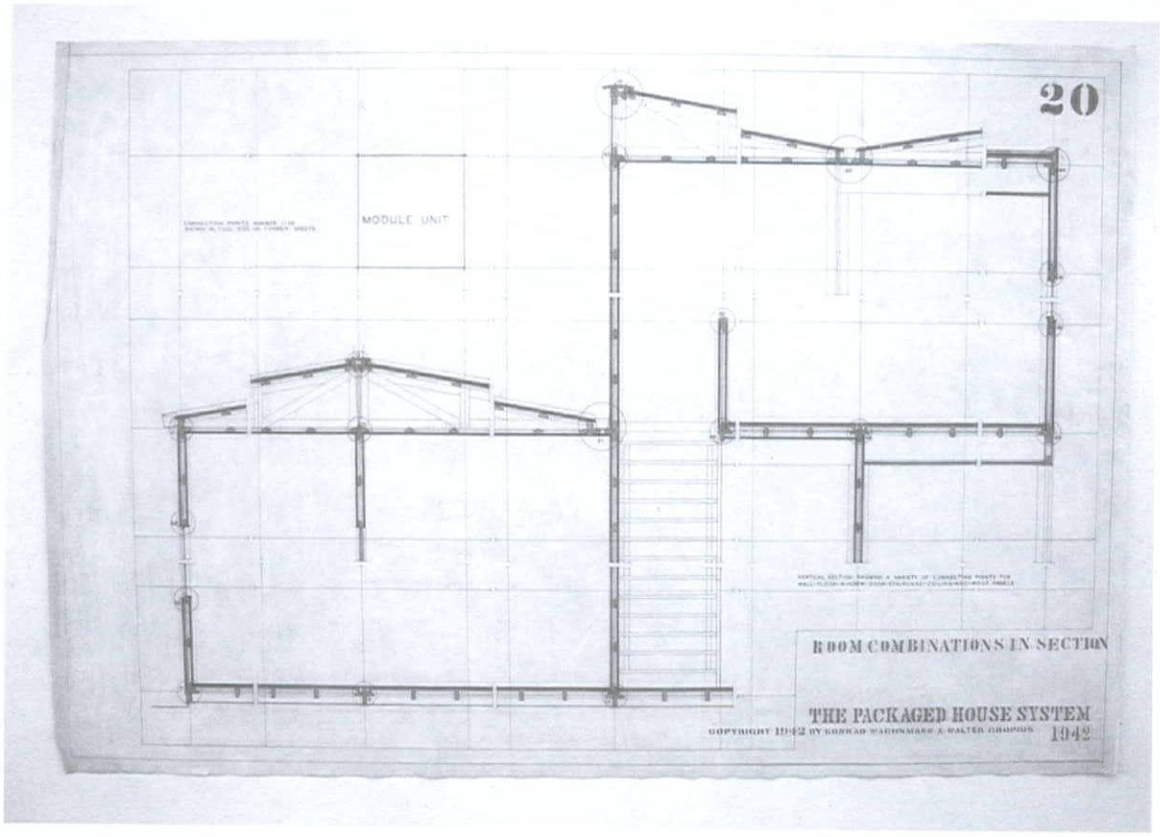


↑ Joint and modular panel integration.

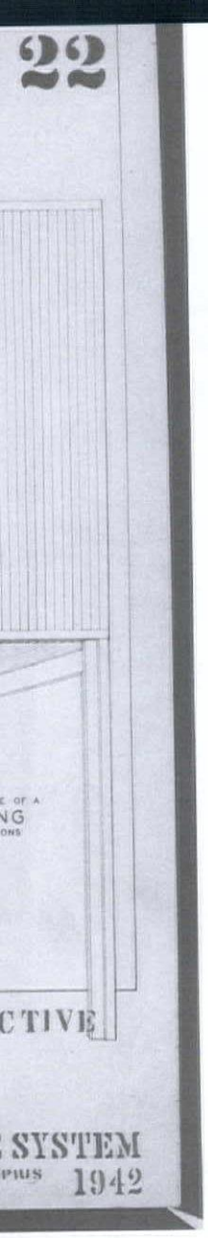


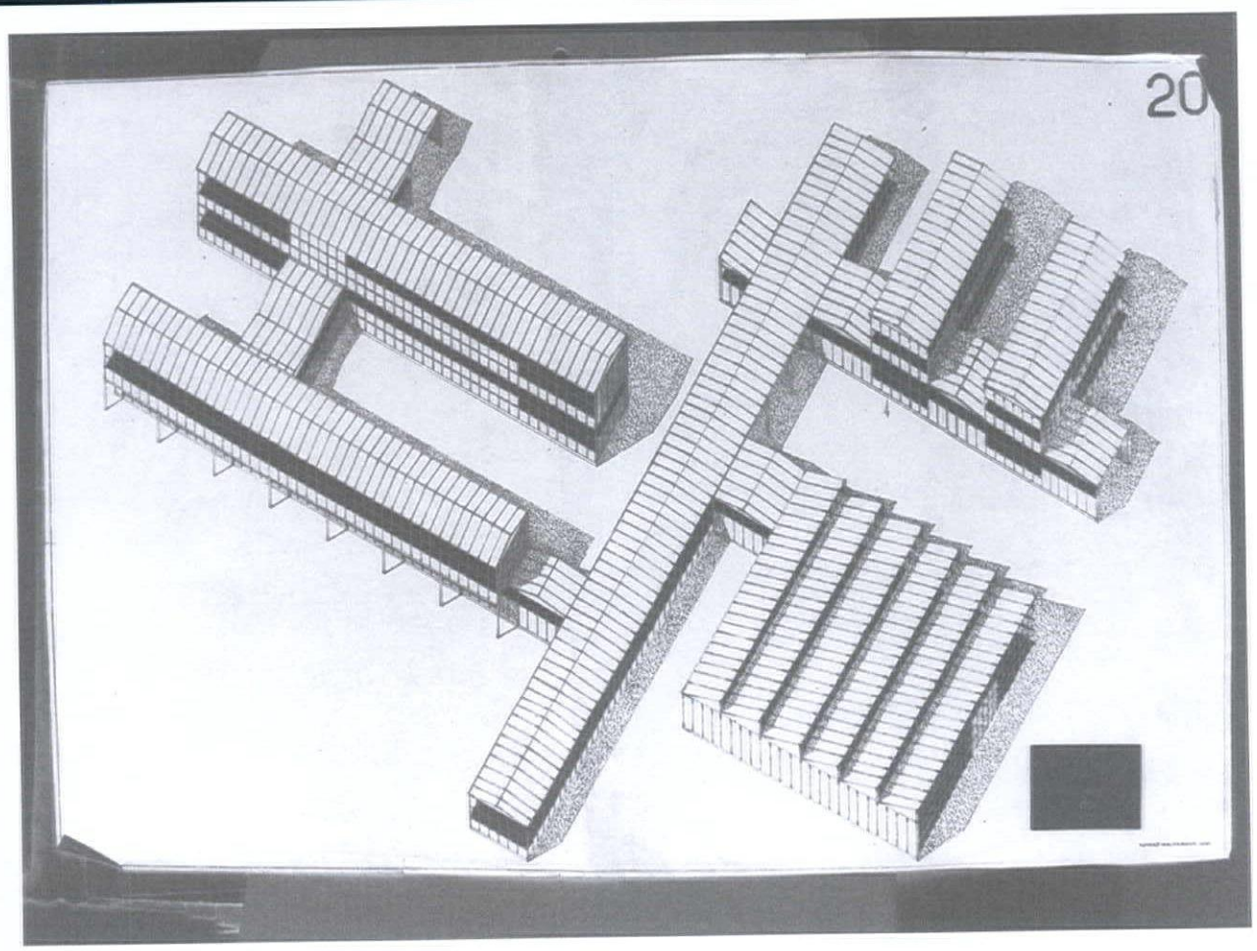
↑ Montage of the Packaged House assembly.





7 THE PACKAGED HOUSE SYSTEM KONRAD WACHSMANN/WALTER GROPIUS 1941–1952



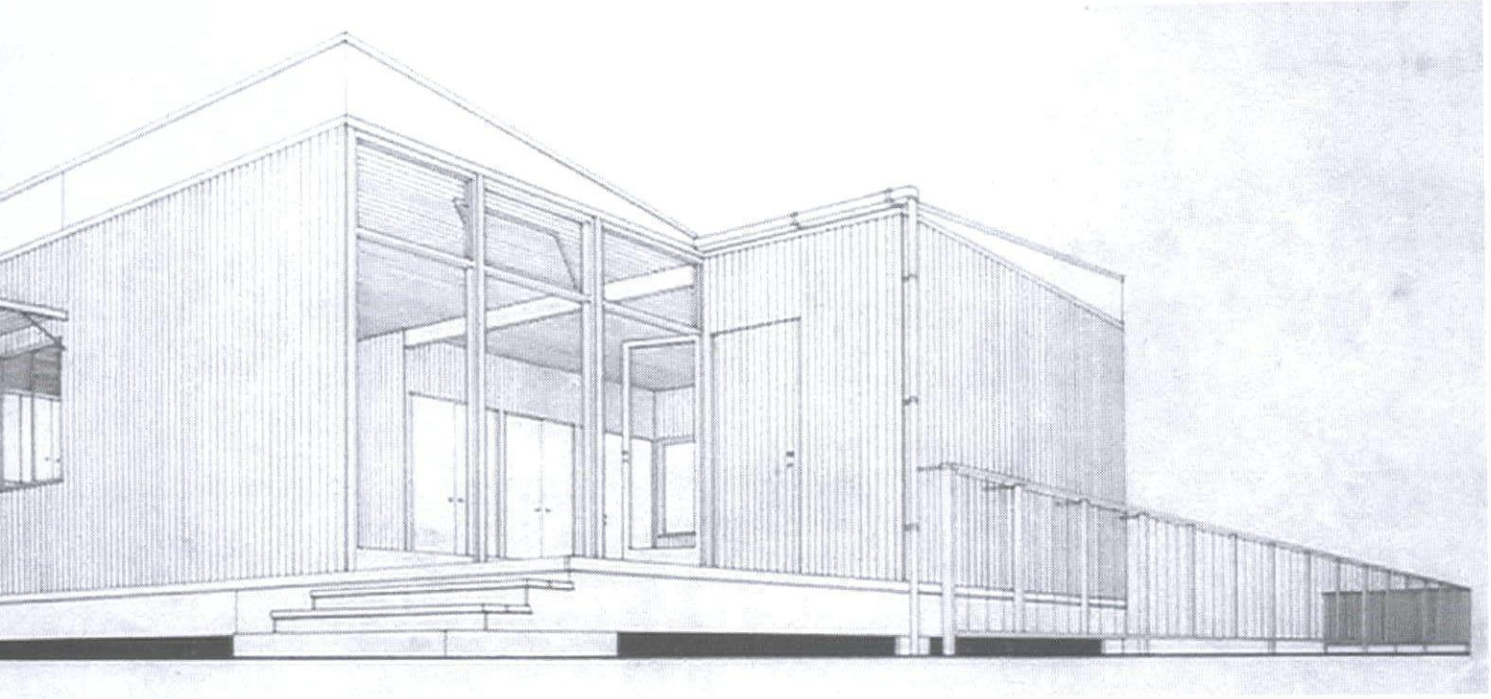


← Interior perspective illustrating the possibilities of the modular system.

↙ Cross section of the house illustrating the modular system's full integration.

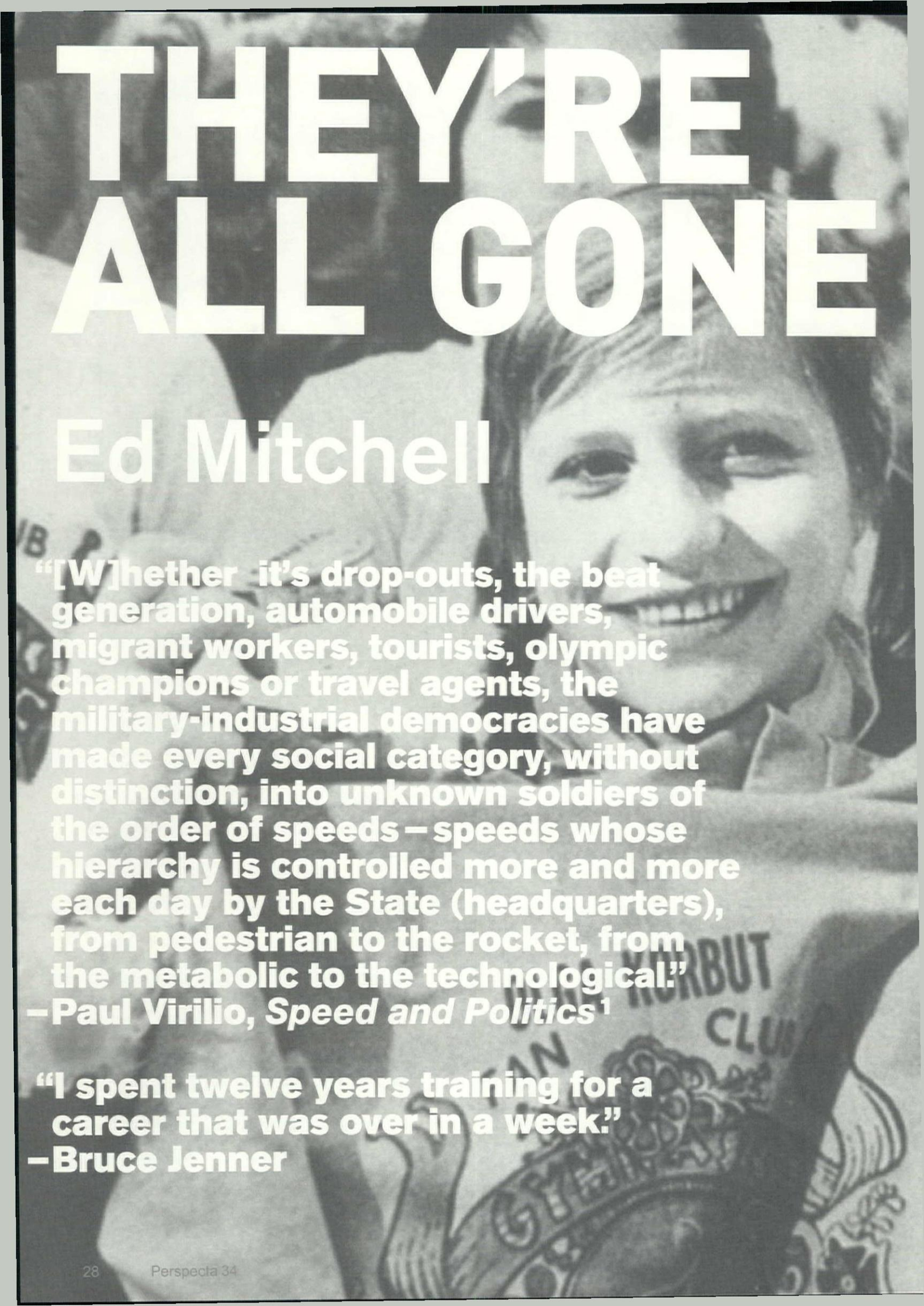
↑ Expansion of the modular system proposed for barracks.

↓ Exterior perspective of an early example of the Packaged House, later to be called the General Panel House.



THEY'RE ALL GONE

Ed Mitchell

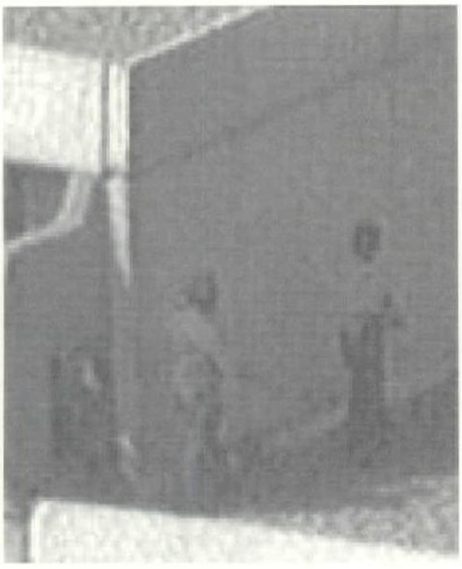


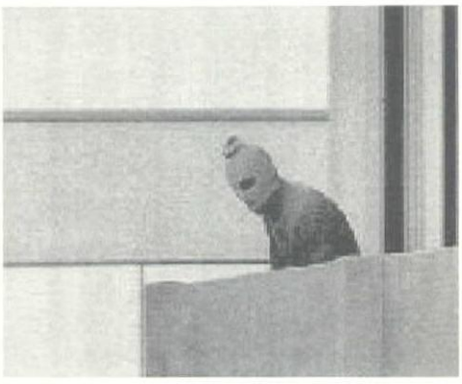
"[W]hether it's drop-outs, the beat generation, automobile drivers, migrant workers, tourists, olympic champions or travel agents, the military-industrial democracies have made every social category, without distinction, into unknown soldiers of the order of speeds – speeds whose hierarchy is controlled more and more each day by the State (headquarters), from pedestrian to the rocket, from the metabolic to the technological."
– Paul Virilio, *Speed and Politics*[1]

"I spent twelve years training for a career that was over in a week."
– Bruce Jenner

← Russian gymnast Olga Korbut, winner of four medals, three gold and one silver, at the 1972 Munich Olympics.

↓↘ The Israeli national team is held hostage at the 1972 Munich Olympics.





September 5, 1972, six days before the close of the Olympic Games, eight Arab terrorists raided the athletes' village, killing two members of the Israeli contingent and holding nine others hostage. Preliminary reports stated that the survivors were safe, but after unsuccessful negotiations and a botched standoff with German authorities at the airport, the terrorists executed the remaining victims. Early the following morning, exhausted ABC sports reporter Jim McKay, who had been up all night anchoring the news, reported, "They're all gone." McKay's epitaph cast a pall on the future of the Games. Although the International Olympic Committee encouraged all participating countries to call an armistice during the event, the Olympic movement's lofty ideals of "fundamental principles of universality" vanished in the miasma of Cold War politics, rampant commercialism, and political terrorism. Political violence, temporarily suspended during the Games, was brought to the center.

Paul Virilio contends that in this same time period, the city itself disappeared. According to Virilio, the city, once a coherent spatial organization, was fragmented and reorganized by time. The traditional city had been governed by the continuities of ritual, history, and memory, but inform-ation, surveillance, and the economic forces of global capital subjected the city to instantaneous re-formation by the disappearance of traditional geometric references—the "Lost Dimension"—resulting in the lack of resolution of the architectural image. Virilio argues that the city, once organized by the three-dimensional expression of the plan, is now regulated by temporal physical interfaces. Spatial depth is replaced by the orders of time.

The exchange of a geometric for a temporal model is not a historical evolution but a new conceptualization of the city. In revisiting the temporal architecture of the Olympics, it appears that since the Munich Games both models are operative and the conflicts produced between the physical order and the temporal dimension form the new language of architectural practice. Michel de Certeau, for example, characterized the urbanism of the modern period as a Concept City defined by three principles: the production of space through rational organization, the establishment of synchronic systems at the cost of resistances offered by traditions, and the creation of universal and anonymous subjects. The Concept City ex-changed symbolic space for operational logic as traditional public spaces were replaced with a set of self-referential systems: open, closed; solid, void; building, landscape; servant, served; etc.[2] By neutralizing symbolic terms, place became anyplace but devolved into no place; bodies became anybody and then nobody; time became anytime, and then notime at all.

However, de Certeau, maintaining a linguistic paradigm, contended that the meaning of space was still extant and open to contested interpretations. Political action against the dominant, organizational mode was possible. Space could still be performed by taking place in a resistant, temporal, and quasi-utopian order. But rather than seeing a pure utopia, one could infer that de Certeau's performed space would be in constant, temporal renegotiation. In diagnosing the absolute loss of space, Virilio rejects forms of resistance like the enclave. Disjunction is not resistance, but the dominant order of time—a chronic condition that seems to eradicate the possibility of the linguistic/spatial practice. Time in de Certeau's Concept City is synchronic, but the presence of a no-time conversely offers the possibility of utopian resistance within the everyday; in Virilio's City of Lost Dimension there is no "way out." I will contend that both of these models are useful in examining the Temporal City; however, de Certeau's account of language remains valuable in that it acknowledges that language—"phatic language," as he terms it—is both eventful and constructed, whereas Virilio's City of Lost Dimension is a closed system. If we accept that disjunction is the order of the day, then we might also contend that there is still a "linguistic" coding to the city, one that no longer is a permanent value, but rather is contested at every moment. The language of temporal urbanism is unstable, dynamic, and above all eventful.

The Olympic Games, both event and urbanism, embody the complex contradictions of the Temporal City. They are both high-concept city and a performed urbanism. Traditionally, festivals operated as temporary utopias, exposing and often restructuring the social programs of civic space. The contrast between the festival and the city made the "permanent" values of the culture visible. When the city loses its

1. Paul Virilio, "The Consumption of Security," in *Speed and Politics: An Essay on Dromology*, trans. Mark Polizzotti (New York: Columbia University, 1986), 119.

2. Michel de Certeau, *The Practice of Everyday Life* (Berkeley: University of California Press, 1984), 94.

permanent values, when it loses its dimension and is instead negotiated by temporal dynamics, the festival's role becomes redundant. The Concept City, made up of replaceable parts, and the City of Lost Dimension, made up of parts in contingent relationships, are both temporal architectures. But while the festival packs up and leaves the traditional city, temporal cities keep moving on. The Games, therefore, have shifted their structural relationship to the host city. Forces dependent on time—fiscal management, telematics, programming, scheduling, and coordinating the movement of goods and bodies—are crucial to staging the Games. No longer exceptional, the Olympic Games are now the paradigm of temporal urbanism and have been courted for the finances that allow cities to shift into this temporal mode.

The Games, unlike the festival, are not "minor" practices—they reconfigure spatial narrative and monetary investment on a scale surpassed only by military operations. Equally important, the strikingly intense yet brief period of the event, primed for both commercial exploitation and critical intervention, highlights the temporal role of buildings in civic environments. Even though the six-to-twelve-week planning and bid period extends the six-week life of the Games, it is instantaneous relative to the gestation period of most public projects. "Temporary" architecture—mobile constructions, modular buildings, and scenery suited for television coverage—is part of the Games, but the Temporal City has an extended repertoire.

The Olympic Village began as a fugitive architecture. Until Helsinki held the Games in 1952, athletes were housed in rented hotel rooms, army barracks, or, as in Amsterdam in 1928, "emergency residential menus" of military barracks, boarding-houses, schools, and hired ships docked for the occasion.[3] Now that Olympic Villages are designed to accommodate up to fifteen thousand athletes, and billions of people witness the Games, the village has taken on the character of a model. Its temporary status became both a permanent architecture and an indelible global image. Planners and designers are charged with creating an "ideal city" that is informed by prevailing discourses on architecture and urban planning. The first Olympic Village, built for the 1932 Games in Los Angeles, for example, was promoted as "a miniature world ... set up by itself, rigidly protected from the world outside." Those Games' final report emphasized the idealistic hope that the Olympic Village would be a place where people of different national and cultural origins could meet, become acquainted, and live together for a limited period of time—a microcosm of a functional, multicultural society.

Olympic founder Baron de Coubertin's promotion of the "fundamental principles of universality" was symptomatic of an emerging cult of internationalism, embodied by Olympic campaigns of mass transportation, social housing, and organized physical activity. But both de Coubertin's "principles" and Olympic urbanism were not politically neutral; global sports competitions are ideologically motivated. In the nineteenth century the British exported cultural traditions and games in support of colonization, using previously elitist and exclusionary upper-class amateur games as a means of "civilizing" the growing working class by introducing it to the rules of "fair play."[4]

The Olympic "fundamental principles of universality" masked blatant ideological contradictions. The sports mega-event worked as propaganda for the aesthetics of physical culture for the Nazi, Soviet, and American regimes and accelerated the rise in sports as mass spectacle and politically motivated entertainment.[5] The Games became the stage for promoting nationalism in Berlin in 1936; protesting ethnic and religious strife in Mexico City, Munich, and Montreal between 1968 and 1976; and exacerbating Cold War superpower struggles during the boycotts at the Moscow and Los Angeles Games in the early 1980s.

The rise in state-sponsored funding in the mid-twentieth century transformed the temporary utopian community into a spectacular form superimposed on the host city, gradually becoming an event that supported the economies of traditional urban centers while also neutralizing their symbolic content. National agendas dominated development but were informed by the relationship of the host country to global economic power and by the prevailing architectural and planning paradigms of the era. Time management—the efficient movement of bodies—informed planning strategies, though central organizing principles limited networked relationships. All nodes were in the serviced hierarchy of the center. Olympic planning moved from development of the center hub, to reappropriation of underutilized urban cores, to more complex reconstruction of existing urban contexts through a combination of building and public relations.

With increased funding, mid-twentieth century Olympic building campaigns emphasized functional zoning and enhanced interconnection of various sites

3. Francesc Munoz, "Historic Evolution and Urban Planning Typology of Olympic Village," in *Olympic Villages: A Hundred Years of Urban Planning and Shared Experiences*, ed. Miquel de Moragas Spa et al. (Lausanne: International Olympic Committee, 1997). http://www.blues.uab.es/olympic.studies/dir/od.html#uao.

4. Maurice Roche, *Mega-events and Modernity: Olympics and Expos in the Growth of Global Culture* (New York: Routledge, 2000), 102.

5. The USSR, however, did not participate in the original revival of the Games, because tsarist aristocrats remained part of the IOC until World War II. Partially as a counter to the Games' covert politics, the Soviets staged their own festival to promote the benefits of Bolshevik internationalism against the "bourgeois cultural nationalism" that the Games came to represent.

← Olympic Stadium, Munich 1972. Net wire, translucent acrylic sheeting, and tubular steel masts. Frei Otto and Günter Behnisch.

and—despite isolated architectural masterpieces that gave a nominal symbolic content to the architecture—promoted an anonymous, state-sponsored modernism. Olympic Villages of the 1960s took particular advantage of the increase of state investment in technological buildup to colonize outlying areas.[6] The capital cities of Rome, Tokyo, and Mexico City, for example, expanded urban growth and relied on multiple sites connected by transportation systems for staging the Games. Tokyo built its athletes' village 5 kilometers from the main stadium and linked it by highways; Mexico City relied on unprecedented dispersion, with distances of over 30 kilometers between sites; and Moscow in 1980 colonized its suburbs in a master plan of programmed growth.[7] Undeveloped areas were modernized and brought into the systems of efficiency and centralized control.

By 1972 a second paradigm shift had begun to take place. Global funding had drastically altered both the responsibility and the control of regional and state-sponsored urban planning. The gradual erosion of the strength of the nation-state affected the Olympic movement, and the old regime was being replaced by a newer politics of the spectacle that had already been identified in critical theory. Despite the lingering political climate of the Cold War, the Games were no longer used solely to promote national ideologies.

Urban cores, still organized as synchronic productive engines, were recolonizing patches of formerly nonproductive space. The capital cities of the previous campaigns directed surplus flow toward the center, but Munich and Montreal represented a new order. While the 1960s schemes centripetally extended functional zoning patterns, the 1970s venues, sited in underdeveloped urban cores, changed existing land use. Munich's and Montreal's organizers re-imagined the city, reprogramming fallow economic ground for the spectacular urbanism that serviced tourism and the mega-event. As a result, the city fabric no longer was conceived as a unified field but was reconstructed as a patchwork of temporary orders. Even though these pieces were increasingly linked by a superstructure of transit and communications networks, their physical adjacencies could produce radical disjuncture.

Both cities' architectures participated in the cultural critique of functionalism, mass production, and Taylorism that characterized the building form of previous Olympic campaigns. However, during this period the aesthetic avant-garde replaced the modernist ethos of work, production, and rational, universal form with the new mythologies of leisure, consumption, and ephemerality. Leisure became a focal program for both visiting athletes and failed central-city economics. In previous Olympic campaigns recreational programs played secondary roles in the city; integrating leisure programs into the unused center of the city gave a new dimension to the urban core. "The landscaping and gardening design of the open areas in the Olympic Village belonged to the realm of recreation," states the *Report of the Organizing Committee for the Munich Olympic Games*. "One could relax on a miniature golf course, in a small swimming pool, in a partially roofed tennis hall, or a large dance hall."[8]

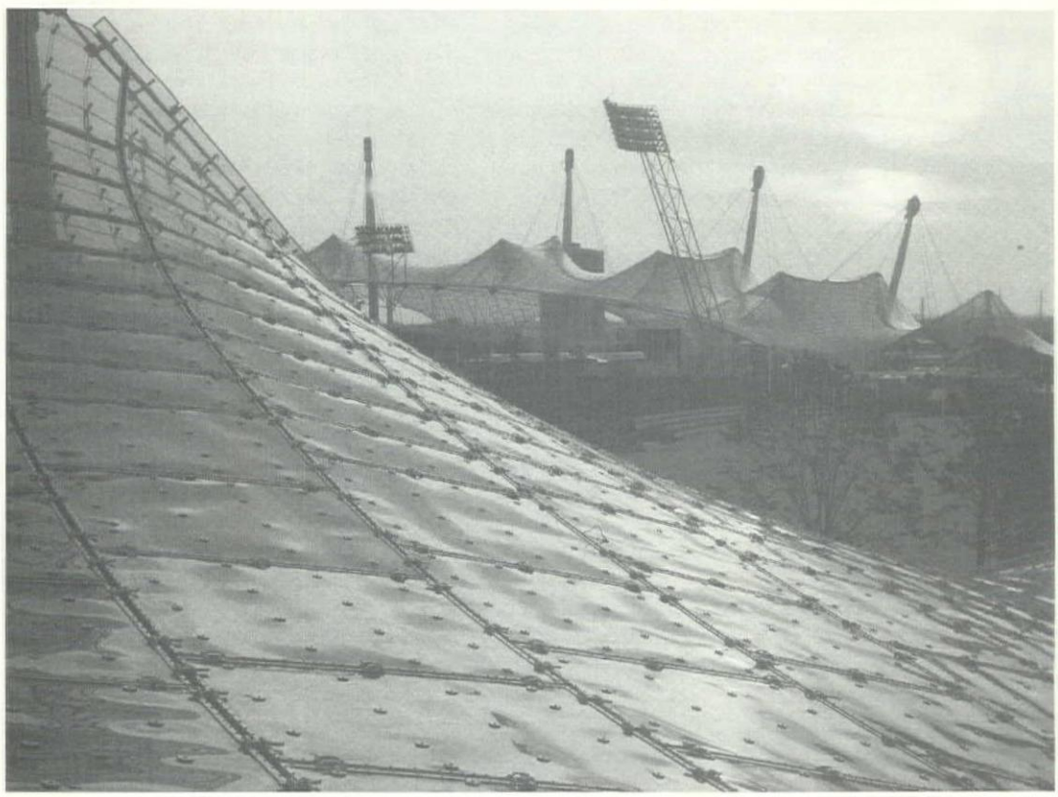
Munich's and Montreal's Olympic Villages were the modernist project's optimistic counterpoint, an open utopia of bucolic consumption where bodies were tested in play rather than production. For six weeks, the village promised a life after production, one that delayed the return of late-modern urban "realities." Images of a physically fit leisure class temporarily occupied the spaces of the underemployed until the perfected bodies of the athletes would surrender the festival grounds of the city to the workaday citizen, and the village would return to a project—culture always held in abeyance as a set of promissory notes that would rarely be fulfilled.

The visual potential of avant-garde architecture in these venues acted in conjunction with the functional network of communication systems as a new urban support. Architects, picking up on trends in other media, offered images that were more compelling than the logistic diagrams of rational planning techniques. The exotic lifestyle of a liberated, transitory culture became "image bites" that collapsed traditional forms and complex urban patterns into single, consumable frames. In a controlled environment, modernism's technical promise could be fulfilled or, conversely, allegorized, exaggerated, and spectacularized to the point of critical commentary or farce. But both the overdetermined formalism of

6. Munoz, "Historic Evolution and Urban Planning Typology," 13.

7. Ibid.

8. *Report of the Organizing Committee for the Munich Olympic Games* (1972), 126, cited in ibid., 28.



the concrete mega-structure and the frivolity of the architectures of information and system design had a short-lived critical relationship to the emerging metropolis. The temporal architecture of the mega-structure, programmatically detached from the city, devolved into an architecture that was simultaneously mythic and nostalgic of an impending urban apocalypse—Peter Cook's "Walking City," for example, was pointedly futuristic while Superstudio's "From Point A to Point" was primitive. At the time, space and form were in jeopardy, but the avant-garde vision seemed unable to surrender a formal regime or advance new models of urbanity and subjectivity.

Munich included conventional building types like the athletes' dormitories, but ephemeral architecture—the main stadium, velodrome, and Olympic Park by Günter Behnisch and Frei Otto—was the centerpiece of the building campaign. The large open, free-form shed hinted at a utopian play of programmatic elements, but the Otto/Behnisch tensile tour de force was more technique than urban proposition. The dormitories, not the tent, became the world's image of Munich after the terrorist strike, and the conventional and avant-garde were rendered hopelessly naive symbols of modern idealism. Open building systems, rationalized infrastructures, and a relaxed politics of spectacle over substance were turned inside out and became images of global folly rather than of an emancipated humanism. When the IOC refused to cancel the remaining events, *New York Times* columnist Red Smith wrote, "Walled off in their dream world appallingly unaware of the realities of life and death, the aging playground directors who conduct this quadrennial muscle dance ruled that a little blood must not be permitted to interrupt play." For some the elegant stadium structure, turned into a mass funeral services site for three thousand athletes and eighty thousand spectators, seemed frivolous and inappropriately lightweight.

Munich's failures raised the stakes in Canada four years later. Montreal already had its big top—Otto's West German Expo Pavilion of 1967—from a previous attempt to capitalize on the mega-event; Otto, Moshie Safdie, and others had already

← → Olympic Stadium, Munich 1972. Frei Otto and Günter Behnisch.

established a local foothold for the megastructure. From the extensive recreational program for the Olympic Park to the elevator lift up the spine of Robert Taillibert's Olympic Stadium that offered a panoramic view of the city, Montreal's architecture romanticized both the mechanics and the spectacle of the Leisure City. But this production cost the city over $1.5 billion, and the architecture had less resilience than the economic climate demanded.[9]

Reconstructing a city on a game rather than on explicit ideological principles contradicted the conceptual framework of modern urban planning. But the bar-stool cliché that "sports are a metaphor for life" suited both the staged political drama of the Games and the Darwinian model of global capitalism. While the avant-garde of the early half of the twentieth century sought to integrate art into life, the Olympic cities explicitly played to a new adage—sport as life—developing and prototyping the Leisure City and aestheticizing the physical environment. In this new model of the Temporal City the mega-event's power to generate an attractive image of the city for the emergent leisure class was more permanent than the physical infrastructure necessary for the staging of the Games.

The publicity and propaganda of the Games, whether in support of National Socialism, postwar Asian business opportunities, or the picturesque scenery of Basque culture, have always been significant in urban planning. Olympic urbanism, in fact, blurs distinctions between modern and postmodern urbanism. The Olympic city is measured not just by how it works but by how it plays—how it projects images into the global media and adopts volatile fiscal planning into the development of its physical infrastructure. American television coverage, which began in Rome in 1960, escalated precipitously throughout the 1970s. Civic promoters needed to leave viewers with an indelible image of the event so that in the future a revolving group of itinerant visitors could be enticed back to the city. The media coverage of Montreal and Munich increased exponentially, reflecting an emerging agenda that put individual cities rather than national agendas on the map of global economic organization. Urban image became equal or superior in value to function in Olympic urban planning, and the symbol of the Olympic Games, the five rings, turned from high-modern concept to brand, recognized by over 90 percent of the world's population—higher even than Shell Oil or McDonald's.[10]

With the respective political and economic failures of Munich and Montreal, specific techniques of globalism—sophisticated media and security infrastructure and the commercial "personalization" of world events—became increasingly necessary to sustain the Games. It was not only terrorism that destroyed the Olympic Village's ideal of a "city within a city" but the systems of globalization, the systems that instigated the Black September group's actions, that were the root cause. If, according to Bruce Jenner, a career could be over in a split second, then a millennium of protest could be summarized in a single flash of weapons. The Olympic mega-event, short-lived but eminently imageable, could keep pace with the speed of globalization better than the mythical cadence of traditional narratives.

UP CLOSE AND PERSONAL

During the modern period the Olympic athlete was relatively anonymous and was quantifiably evaluated on levels of physical performance. Marxist critics equated the Olympics Games with repression, epitomized by the aestheticization and a technological intensification and evaluation of the body. The introduction of mega sports events into the city demonstrated the role of the new, anonymous soldier-citizen. Susan Sontag writes that "the rendering of movement in grandiose and rigid patterns is another element [which fascism and Communist art have] in common, for such choreography rehearses the very unity of polity." Or, as John Hoberman states, "Even under the best circumstances (a pre-conditioned audience), the 'grammar' of sportive language is confined to three major 'parts of speech': physical beauty, force of will, and ideological truth. Major elements of human experience such as reflection, doubt, irony, anxiety, and pathos must be omitted. Claims that sports should be a branch of culture should be judged in this light."[11]

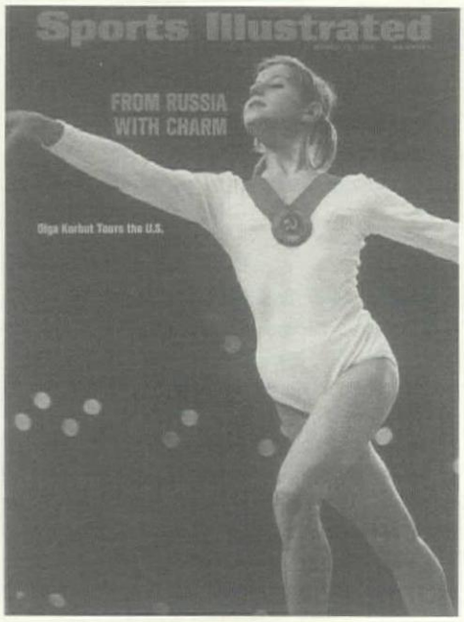
However, in Munich those older ideologies were already out of fashion. Reflection, irony, doubt, and exaggerated pathos became more profitable than winning medals. Time is the governing factor of the citizen of the post-conceptual city. Key moments of the Games break down into micro-events, and critical moments are collapsed into thousandths of seconds. These micro-events are then presented as a series of stills—the thrill of victory and the agony of defeat—captured digitally, and broadcast across the globe. Telematics resolves a lifelong struggle. New advertising strategies were replacing the broad marketing of "universal" imagery in order to target "individualized" markets. The Olympics needed a face, and ABC television's "Up Close and Personal" profiles supplied a

9. Certain reports indicate that the debt has yet to be recovered, and projections indicate that the costs of the soiree will not be made up until 2006. By that year the stadium that today houses the Montreal Expos will have no permanent tenant.

10. Nigel Morgan and Annette Pritchard, *Tourism Promotion and Power: Creating Images, Creating Identities* (New York: Wiley, 1998).

11. John Hoberman, *The Olympic Crisis: Sport, Politics, and the Moral Order* (New Rochelle, N.Y.: A.D. Caratzas, 1986), 27.

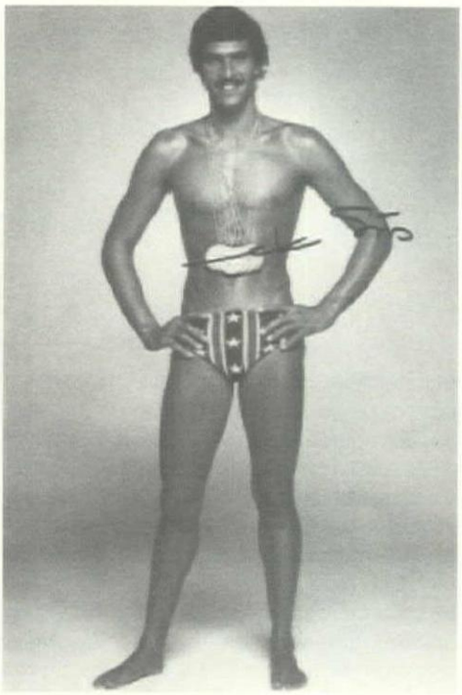
↓ Olga Korbut on the cover of *Sports Illustrated*, March 1973.



countenance to the dromadic body of the modern athlete.

While athletes "acquired a face," corporate and commercial interests sought to regain control of that image. Resistant political forms were outflanked by the rules of the spectacle. Cassius Clay, the first media star of the Olympic Games, eventually used his fame to advance political causes as Muhammad Ali. But by 1972 even Ali had acquired a different, more user-friendly image. At Munich, Olga Korbut, a Russian gymnast and a recent participant in the Fox network's *Celebrity Boxing*, was portrayed as a sprightly "pixie" in contrast with the conventional image of the Communist athletic "machine." The 1972 image of Mark Spitz, the literal poster boy of wholesome (i.e. Anglo-American) political values, supplanted the 1968 picture of protesting Afro-American sprinters Juan Carlos and Tommy Smith. The raised fist of class conflict was replaced by the kitsch sexuality of the corporate athlete. While Jenner's

↓ Mark Spitz, winner of seven gold medals at the 1972 Munich Olympics.



"career" may have ended in seconds, his sales pitch seems to have lasted beyond any reasonable period of observance. Jenner, who seems to have lost his face due to extensive plastic surgery, relives his moment of victory, waving a miniature American flag, almost nightly on television infomercials.

Contrary to Sontag's criticism, it is not the body that is subjected; what you wear is critical in the Temporal City. The gray flannel suit, sharply cut with pin stripes but ultimately anonymous, was the suit for the subject of the old central city. Time was of the essence to both the athlete and the average citizen. By the early 1970s the leisure suit had come to fit the inhabitant of the Leisure City: kind of a suit but with a little personality, not too dressy but appropriate at formal occasions. The early 1970s, at least at the Olympics, were still formal occasions, and the leisure suit was a hybrid of the old gray flannel and the athlete's warm-up suit. But the athlete of the past, like his office counterpart, was an efficient time machine. The leisure suit formalized guilty pleasures, and the warm-up suit...well, the warm-up suit, stripped of its function, was the dress for the late twentieth-century mass consumer. The warm-up suit is appropriate for the new state—relaxation.

The Black September group told an opposing story. Covered in white ski masks, balaclavas, and black shoe polish, they showed globalism's darker countenance. The terrorists, simultaneous to ABC sports producer Roone Arledge, comprehended and manipulated the temporal organization of global cities. Feeling unable to represent themselves, they countered by murdering a group of human beings who they mistakenly thought suppressed their voice. The three surviving terrorists, who returned home to a hero's welcome, called the mission a success, because they had put the name "Palestine" in everyone's vocabulary.[12] Ultimately, they saw the politics of globalism as "Up Close and Personal."

IMAGE IS EVERYTHING

Postmodern architects, meanwhile, were making a similar attempt to give the city a face. Virilio asks, "Does the metropolis possess its own facade? At what moment does the city show us its face?" The traditional city was once understood as a finite physical entity controlled by geometric order, but the metropolis was more fluid, negotiated at any number of speeds, subject to fluctuations of resources, and linked by countless visible and invisible infrastructures. A building's ability to acquire a face within the Temporal City required the territorialization of temporal forces. Conservative new urbanism tried to restore the face to the city by referring back to traditional typologies, with an emphasis on the facade. The body was the site of a restored generic "humanism." Critical architects at times used the body as an instrument to measure the politics of identity and repression. Critical postmod-

12. In the film *One Day in September* it is revealed that the German authorities helped stage a mock hijacking of a commercial airliner and then exchanged the "hostages" for the three guerrillas. German authorities apparently claimed that this was to prevent a trial that might lead to further terrorist actions on German soil.

ernism identified these forces; commercial postmodernism exploited them.

After the Munich tragedy and the fiscal crisis precipitated by Montreal's extensive building campaign, the physical infrastructure necessary for hosting the Games appeared to be untenable. Culture moved too fast to accommodate the static and cumbersome nature of architecture. Olympic venues had limited post-event use value. The logical step was to capitalize on the image potential of the festival without the physical and functional infrastructure. Los Angeles, the sole bidder for the 1984 Games, already had the facilities from 1932, and the rising fees for network coverage fueled possibilities for the world's media capital. The final tally showed an immediate profit on the order of $400 million.[13] Los Angeles's "invisible" architecture and fiscal success, copied by Atlanta in 1996, pointed out a viable future strategy for the mega-event as a staged form of urbanism.

Television revenues doubled from 1976 to 1980 and again in 1984, starting in Montreal at $83.7 million, rising to $179.6 million in Moscow and $419 million in Los Angeles.[14] Though the trend has slowed, current estimates for 2004 project $1.03 billion in revenues for Athens. As a consequence of the rise in commercial revenues, Olympic cities (excluding those in the United States) generally rely on increased international funding. Munich had 19 percent international funding, Montreal 26 percent, Seoul 52 percent, and Barcelona 46 percent.[15] The Olympics did not disappear. Bid competition has increased. Courting the Games, a high-risk speculation of urban futures given the potential fallout, is a risk-reward model in urban planning.[16] While gathering thousands of athletes in one place seemed anachronistic when the new global village was housed in the television set, the dollars generated from its architecture could potentially improve the urban scenery.

International capitalism, contrary to common misconceptions, requires an enormous amount of construction. Given this new form of "Internationalism," one might have expected a dematerialization of traditional cultural practices, but the Games have promoted an architecture that reflects and contributes to local customs and rituals. The Olympic Games—like no other mega-event—exemplify capitalism's need of not only sophisticated security, media, and transportation infrastructure but also the cultivation of individualized mythologies. Capitalism needs visualization to promote itself. "Local content" serves as the backdrop for commercial products. The urban "real" is required as both the record of the cultural artifacts of previous regimes and the receptacle for projected images. Even recent images of utopia like Munich's main stadium continue to be promoted as urban attractions. Today the Internet site Virtual Beach Cafe promotes the Munich Olympic Park as an exotic singles' club where "German bachelors...go to war against each other in a watersport Bavarians call 'Schifferstecken.'" Even the relatively new Leisure City, once a gesture toward social progress, could turn into simulated landscape of marketable pleasures. The radical cry of the 1960s counterculture "Under the sidewalk, the beach" has been commodified—its promise of a new urban politics sold back to the public.

Barcelona's and Seoul's exercises in urban simulation learned a great deal from the financial success of Los Angeles's investment in civic "image" on the world stage, from graphic packaging and color coordination to the investment in electronic circuitry. Both cities modernized their infrastructure. Korea was able to launch a new industry in electronics through the construction and marketing of a sophisticated communications network for the Games. Barcelona saw an increase of 70 percent in telephone services between 1988 and the start of the main event. Plugging into the systems of information technology has become an important source for working in the global market.

But they also learned that postmodern architecture's investment in "place" over modernist "space" was far more profitable. Like Munich and Montreal, Barcelona and Seoul reinvested in the historic center of the city. The dominant physical change involved the rehabilitation of existing and underutilized waterfronts, but instead of inventing a new and futuristic urbanism, Seoul and Barcelona marketed an image of the historic fabric and culture of the city.

The heterogeneous quality of temporal organizations contradicts predictions that the logic of capital would produce a seamless space without centers. According to Lluís Millet, "Centrality had to be redefined. ...That meant defining the services and influence borders that had to be given to this central city, or, in other words, to define a system articulated between this centre and the centres of other metropolitan and regional cities."[17] These "centers," what we once defined as political territories or "cities," are subject to dynamic temporal reorganization. Urban architectures are neither permanent nor absent but temporary, subject to emergent narrative or conceptual reorganization. Seoul marketed an "architectural tradition which is based on human

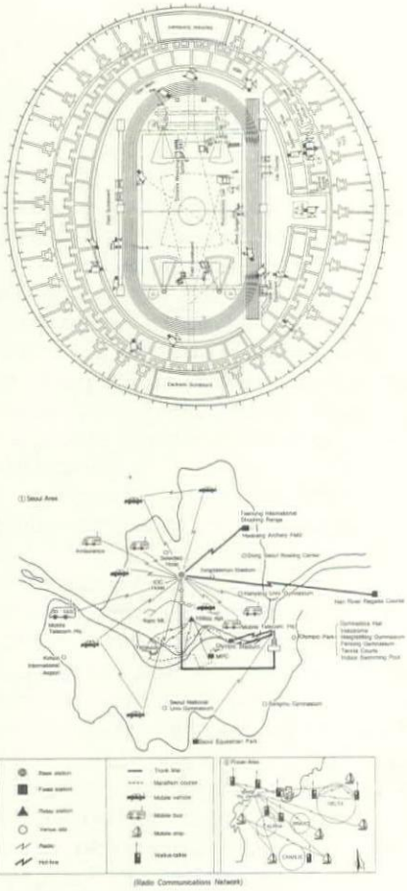
13. G.M.P. Swann, "When Do Major Sports Events Leave a Lasting Economic Legacy?" (research paper, Manchester Business School, n.d.); http://www.blues.uab.es/olympic.studies/dir/et.html.

14. Holger Preuss, "Globalization and Its Economic Impact on the Olympic Games," in *The Olympic Ideal and Culture in the Global Age*, International Olympic Academy 39th Session for Young Participants.

15. Ibid.

16. See Greg Andranovich, Matthew Burbank, and Charles Heying, "Olympic Cities: Lessons Learned from Mega-event Politics," *Journal of Urban Affairs* 23, 2 (2001), 113–31.

17. Lluís Millet, "Els jocs de la ciutat," working paper, 46 (Centre d'Estudis Olimpics i de l'Esport, 1992), 4; cited in Munoz, "Historic Evolution and Urban Planning Typology," 33.



←✓ Plan for the stadium and radio communications network at the 1988 Seoul Olympics.

values and expresses Korea's feelings of tranquility and modest elegance... [which] enhances the spirituality deeply rooted in the country's culture."[18] Barcelona's allusions to Catalonia's independent seafaring tradition emphasized its "Mediterraneanity" over its Spanish nationality. This marketing strategy traded the politics of territory for the more ambiguous milieu of the ocean.

Both Seoul and Barcelona had strong associations with political violence and repression but were able to reverse this history, distinguishing themselves from the respective regional and imperial political apparatus that had been responsible for this historical cultural suppression. In both cases, the cities negotiated complex relationships with regional economies (Asian and European markets) and suspect political nationalism (Korean Communism and Spanish dictatorship) by leaping into global markets. The IOC took a great risk by picking Seoul, and though some have questioned its motives, the success of those Games may prove to be the most powerful positive outcome of the global politics of the Games. Similarly, Barcelona had a history of terrorism from the days of the presence of French anarchists at the beginning of the twentieth century.[19] Massive migrations in the 1950s and 1960s from the impoverished south had resulted in a densely populated and poorly serviced outer ring. The Olympic building campaign used international funding not only to resolve urban planning problems but also symbolically to restore Barcelona's independence. The home of the soccer team that had been closed by the dictator Primo de Rivera in the 1920s was rehabilitated as the main Olympic stadium.

FLOWS VS. PLACES

It would seem, then, that the brief outline of these campaigns represents urban and conceptual types—Central Cities, Leisure Cities, Ephemeral Cities, and Postmodernist Cities. But physical characteristics cross between models. Images, after all, played an equally important role in the support of the state, while an Ephemeral City like Atlanta still relied on a heavy investment of capital for the physical renewal of its center. Although type defines physical qualities of Olympic building campaigns, it seems insufficient for measuring the effect of temporal urbanism on cities, tending to fix the physical support structure into a "linguistic" coding or spatial archetype. That coding, it should be made clear, differs from an eventful language. Temporal urbanism requires gauging urban forces in time rather than stabilizing abstract concepts.

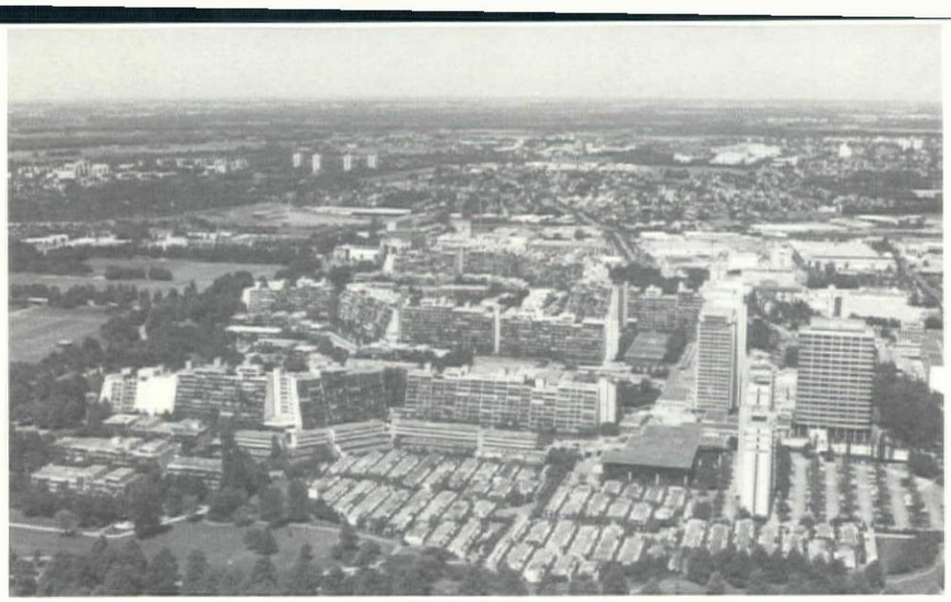
Consequently, building form can be evaluated by its potential both to absorb and to generate urban programs and resources. Bureaucracies arise to extract energy surpluses (taxes, tourist dollars, advertising revenues, rents, and labor) and succeed by their ability to manage those energy flows.[20] Understanding spaces of flows vs. spaces of places allows for the successful negotiation of the financial and political complexity of recent Olympic bids and the ability to calculate the trajectory of urban futures. Spaces of flows include the element of time that spaces of places exclude. Productive exchange requires the flow of the rights of ownership of parts of the city, necessitating the establishment of new institutional norms. Ossifying these forces by fixating on linguistic types confines architecture to a limited series of expressions. Olympic planners, in contrast, think in the dynamic terms of a developer. They work with temporary structures and flexible programs and reorganize existing transportation networks, land values, and labor sources. Barcelona's oceanic imagery, for example, was a symbolic space that looked back to the significant architectures of previous political regimes, but it was also operational. The fiscal flows, television revenues, and politics were managed into organizations that had repercussions beyond the local. Conversely, Barcelona's remapping of its position in the emergent European markets was put into the service of urban renewal.

The IOC, a top-down organization of lifelong members with highly restrictive rules

18. G. Brandizzi, "Architecture and the Games," in *Spaziosport*, special number dedicated to the Seoul Olympic Games (1988), 173, cited in Munoz, "Historic Evolution and Urban Planning Typology," 28.

19. The general strikes in 1901–1902 and in 1909 erupted in weeklong riots that caused extensive destruction, including the razing of seventy buildings belonging to religious orders. The dictator Primo de Rivera eventually banned the emergent anarchist union Organización Confederación Nacional del Trabajo. Rivera fell in 1930, but the Spanish Civil War cut the Second Republic's urban plan short. Catalan national identity was totally repressed until Franco's death in 1975.

20. For more on this idea see Manuel De Landa, *One Thousand Years of Non-linear History* (New York: Zone Books, 1997).



→ Olympic Village, Munich, 1972

for staging the events, has both limitations and implicit interests in the reorganization of cities. To a degree, the Olympic Games are still beholden to the original mission of the IOC—the promotion of "universality"—and the subtle, coercive role organized sports play in assimilating resistant cultures into the symbolic domain of dominant colonial orders. Olympic investment, however, remains centered on the United States and Europe and tends to take the path of least resistance—typically cities trying to move up the global economic scale. Barcelona, for example, became a world rather than a regional center, and Atlanta tried to establish itself as a financial center for the emerging American South. Africa and South America, on the other hand, have never been granted bids, while awarding the Games to both South Korea and China risked the possibility of aggravating political tension on the world stage and thereby compromising the safety of the athletes in exchange for the vast potential of developing the emerging Asian market.

Because the public has been loath to take on the level of debt that crippled Montreal, bid committees, especially those in the United States, have been forced to avoid excessive reliance on government funding. Resistance to Olympic bids abounds from Toronto to Finland, but with the bid committees' increasing independence from governmental institutions it is difficult to determine whether local political protest will continue to have the same impact it has had in the past. Institutions like local and regional bid committees are complex hybrids that do not simply replace existing institutions—legislative bodies, law enforcement agencies, and economic authorities—but coexist with them. They succeed by their ability to operate on large-scale projects without forming a society-wide "system." The promise and yet the threat of mega-event development are that these new institutions can move more swiftly than the agonizing snail's pace of public discourse. Beijing—perhaps anxious over exposure to Western business but with interests in moving its closed culture into the space of flows—has straddled expressions between the old form of political propaganda and central organization and the benefits of Western financing and information technology.

Architecture, the concrete legacy of the Games, stands at the ideological node of these flows. The idealized image of a miniature world without national and cultural boundaries, for example, is contrasted by the tremendous security effort undertaken during the Games in order to protect the athletes. This often makes the athletes' villages gated communities, made up of homogeneous populations guarded by private security services. This isolation can ghettoize the village for those who occupy it after the Games. Lake Placid's Winter Olympic Village was an extreme case of a blatant contradiction between the symbolism of the original program and the post-Olympic use.

Lake Placid, like Los Angeles, hosted the Olympics in 1932 and in 1980. With a population under three thousand, the town had little capacity to generate a post-event housing market for the athletes' village. Instead, it used federal funding to convert the Winter Olympic Village into Ray Brook Federal Prison, home to John Gotti Jr., among others.[21] New York City, a lead candidate for the 2012 Games, may have benefited from global economics, but the upstate regions that account for two-thirds of the state's counties had lost mining, logging, dairy farms, and manufacturing jobs.[22] Prisons offered income stability to upstate counties that were subjected to a highly seasonal, uncertain economy. In addition to the more than $1.5 billion spent to build correctional facilities, the prisons now bring the North Country about $425 million in annual payroll and operating expenditures, representing an annual subsidy to the region of more than $1,000 per person.[23] Lake Placid is a complex parable of the movements between flow and stasis in material-based practices. Transitions from public to private ownership, urban to rural poverty, illicit global commerce to lawful imprisonment, and industrial production to leisure programs produce spaces in their wake. The cell is the quintessential spatial remainder of a complex set of temporal processes. The tenants of the New York penal system occupy spaces where legal flows are blocked. They are "doing time" as they learn how to make time "productive."

The Lake Placid story backs up Virilio's assessment that speed is linked solely to brutality and repression. Virilio noted that the decay of older industrial nodes and the political turmoil in Third World mega-cities were signs that warfare had penetrated the centers of Western culture. Global internationalism represented the dominant mode of the new warfare; terrorism is both its inevitable product and its critique. As prev-

21. In 1981 New York's voters defeated a $500 million bond issue for new prison construction, necessitated by the global war on drugs and the resultant doubling of the state's inmate population between 1983 and 1990. Governor Mario Cuomo, facing a close election, tried to shrug off his liberal label by coming down tough on crime. A tight budget necessitated a search for an alternate source of financing. Cuomo used the state's Urban Development Corporation, created in 1968 to build housing for the poor, to construct the prisons and lease them to the Department of Corrections.

22. Although roughly 80 percent of the state's inmates came from New York City and its suburbs, high real-estate prices and opposition from community groups made it difficult to build correctional facilities there.

23. Eric Schosser, "The Prison-Industrial Complex," *Atlantic Monthly*, Dec. 1998.

iously noted, the Olympics' impact is exceeded only by direct military actions. The temporary nature of the Olympic event, coupled with its huge financial investment, includes a whole palette of physical "war machines" that must attempt to enhance and support movement while keeping it from breaking into random and chaotic blockages—local political resistance, traffic jams, and debt. Movement, however, also implies vitality or life force, a way of moving along in the face of cultural stasis. Capitalism, which is ultimately responsible for the temporal status of cities, puts forces into dynamic play, but in its conservative modes it is also responsible for re-territorializing space by hoarding resources and ideas. Spaces are made to secure cultural dynamics; flows keep them in play.

The architecture of temporal urbanism would include the infrastructures of telecommunications, highways, air traffic, and waterways as well as ephemeral and permanent architectures that are open to programmatic reinterpretation and urban reuse. Infrastructure is perhaps the ubiquitous physical legacy of the Games. In this case, the architecture does not move, but movement is promoted. And while the improvement of infrastructure can tend to centralize spatial hierarchy and synchronize urban mechanics, shifts in urban geography have also promoted heterogeneous, multicenter development and mesh networks. Recent trends indicate conceptual changes to thinking about the problem of infrastructure that do not impose new systems but reorganize existing ones for greater productivity. New York City, which suffers from an archaic system of mass transit, plans to connect the larger northeastern transportation corridors and link regional event venues by its waterways, adding both permanent and temporary ferry stops along the East River. This latter project will open up low-serviced areas of Brooklyn, Queens, and Harlem into the dynamics of the speculative real-estate market.

The second key development in systemic thinking is the reevaluation of the landscape as an infrastructure or ecosystem with wealth-generating potential. Sydney's "Green Olympics" made extensive use of solar power, while Athens intends to upgrade its deteriorated ecology. China, which has experimented with weather manipulation since the 1950s, has already taken measures to ensure blue skies throughout the course of the Games, though it admits that this is not "rocket science." Missiles used to seed clouds and disperse smog have been dangerous to the public. Wang Wang of Beijing's Study Institute of Artificial Influence on the Weather notes, "It's still not a mature art."[24]

Architecture must tie into these larger legal, ecological, and physical systems. Temporary or ephemeral structures are the most obvious but sometimes the least compelling temporal architectures. Though Los Angeles and Atlanta made extensive use of transitory structures, these are major investments in construction that have no return value. Tokyo, which experimented with temporary structures for its village, most likely suffered an economic loss by not thinking about long-term use. Clever scheduling concepts, graphic packages, or low-cost image making now prove to be more lucrative. The blue stripe on Sydney's marathon route has been repainted and maintained due to its aesthetic and tourist-servicing potential. That line traces the strategic parade route by the Sydney Opera House and other significant urban attractions, tracking the best location shots in the city.

Conventional buildings also play a role in temporary urbanism. Los Angeles and Atlanta introduced the idea of a multipurpose "container" as a building type, whereas Barcelona developed a variety of types in its residential palette that distinguished its urban plan. Cities that will survive the Lost Dimension of spatial coherence will have to develop or redevelop building fabrics that sponsor flexible programming and urban zoning and still promote an "experience economy" that survives on atmosphere.

Munich ultimately exposed the comic and tragic conflict between modern utopian intentions and the emergent operational strategies of temporal urbanism. The eight terrorists boarded commercial planes on September 4 from Libya to Munich. On the night of the fifth they attended volleyball matches in one of the secondary venues, and then shortly before dawn climbed the fences surrounding the village, aided by a group of American athletes who were sneaking in after curfew. Shortly before 5:00 A.M. an attempt to storm the dormitories was scuttled when German authorities realized that their rescue operation was being broadcast into the dorms by East German television. When they thought they had the "place" surrounded, they soon realized that the underground network of roads that directly tied the dormitories to the national transportation infrastructure would aid the terrorists' flight to the airport, where the final executions eventually took place. But perhaps the most absurd detail captured in the film *One Day in September* demonstrates the radical disjunction of spatial practices that took place in an architecture that was intended to support universal utopia. At 2:00 P.M., after the guerrillas had extended the initial deadline for the release

24. Melinda Liu, "China: Rain Called on Account of Games," *Newsweek*, 5 Aug. 2002.

of two hundred hostages from noon to 5:00 P.M., after two athletes had already been murdered, other Olympians—still members of the Leisure City—were filmed sunning themselves on the artificial beach and playing Ping-Pong on collapsible tables only a few hundred yards from the hostage site.

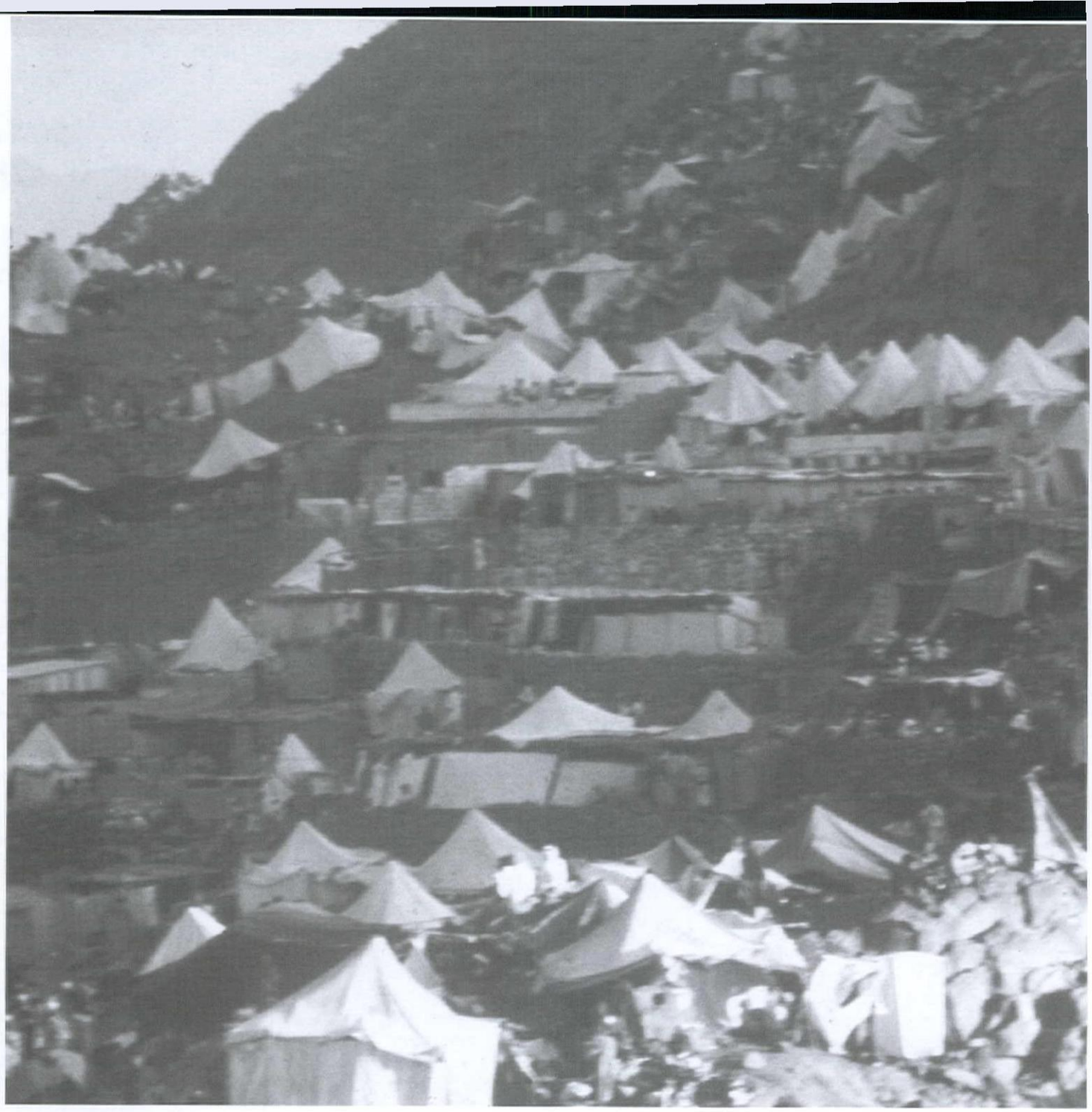
The Palestinian terrorists both recognized and targeted the temporal urbanism of the Olympics. They tapped into the infrastructure of that developing culture—open movement, free exchange, and anonymity coupled with mass spectacle. Their larger objective was to radically rewrite the spatial-temporal practices of internationalism and modernism's positivistic, progressive teleology by introducing radical disjunction into the system, exposing the hypocrisies of universalism and the temporary status of that culture's secure future. The guerrillas' minor techniques were mirrored by the major operations of the Temporal City. Their mission was a success because, by 1972, the consequences of their actions had already been established within the embattled city.

The image of armed assassins patrolling the balconies of Munich's athletic dormitories challenged modern urbanism's doctrine of a neutral, homogeneous form of public space. Though it was ostensibly a minor practice in that it usurped the information systems that broadcast the benefits of Olympic "internationalism," it did not construct a viable alternative, nor did it desire to keep things in play. It could be said that the Black September group ultimately could not construct a "minor language," though it sought to give a voice to Palestinians. The Olympic massacre, a radical, fundamentalist act, reorganized the urban, spatio-temporal "universality" promoted by the IOC but replaced it with a fundamentalism in the service of apocryphal time. Munich therefore represented a triple rewriting of the city: first, by the local Olympic organizing committee responsible for staging the Games and thereby "neutralizing" the existing urban fabric; second, by the American media who commercialized and "personalized" the events; and third, by the terrorists who violently usurped the representation of the event. Terrorism did not construct an alternative space—a space of resistance—but exposed the inherently disjunctive nature of time in the contemporary city.

The Black September terrorists, outsiders to the operations of an emergent globalism, steered the infrastructure of roadways, transportation, and media toward the promotion of their own cultural agenda, though ultimately they did it in the name of another brand of oppression. While the 1972 massacre marked a political shift from the clearly defined "rules of fair play," it also inaugurated critical changes in the imaging and perception of both the Olympic athlete and the Olympic city. Political terrorism, a new reporting style that dominates the coverage of the Games, and reconsideration of the limited ideological and practical terms of modernist master planning developed seventeen years before the close of the Cold War. In 1972 terrorism was able to exploit our cultural logic by reversing the ruling dynamics of the infrastructure of capitalism—free movement of bodies and information in space, the legal transparency of national borders, and the liquidity of financial exchange.

One Day in September captures the Temporal City better than any conventional architectural representation. Throughout the documentary the camera tracks at low angles, imitating the movements of the terrorists speeding along highways, eating at food counters, running through back alleys, climbing walls, racing through the anonymous corridors of the Olympic Village, and escaping through darkened parking garages. As events unfold, the world is measured by the speed of its response. Munich is no longer a city where "tradition and modernity exist happily side-by-side" but a product of movement, a turbulent vortex of spatial disintegration. Cities are urban because of the density of these conflicting actions, not because of the quality of their spaces. "You were looking down into the cockpit of the world," remarks a British cameraman who witnessed the events. The modern utopian city seemed as if it were constructed for hijacking.

We have come to think of the people who manage global culture—media moguls, financiers, and politicians—as architects. Most of the temporary architecture associated with practices like the Olympic Games embodies and promotes the lightweight qualities of our culture: fast food, instant celebrity, and Ping-Pong tables. Other temporary architectures are far more serious: credit systems, security controls, and the language of politicized propaganda. Temporary architecture, from the television camera to an Olympic venue, tends to be self-contained and functionally determinate, but the temporal urbanism that it produces spreads everywhere, reworking our former notion of a unified urban space. The city may well be "all gone"; temporal architecture produces both a networked society and seams of extreme difference. Those seams are both the gaps in civility and the potential site of a productive, timely cultural language.



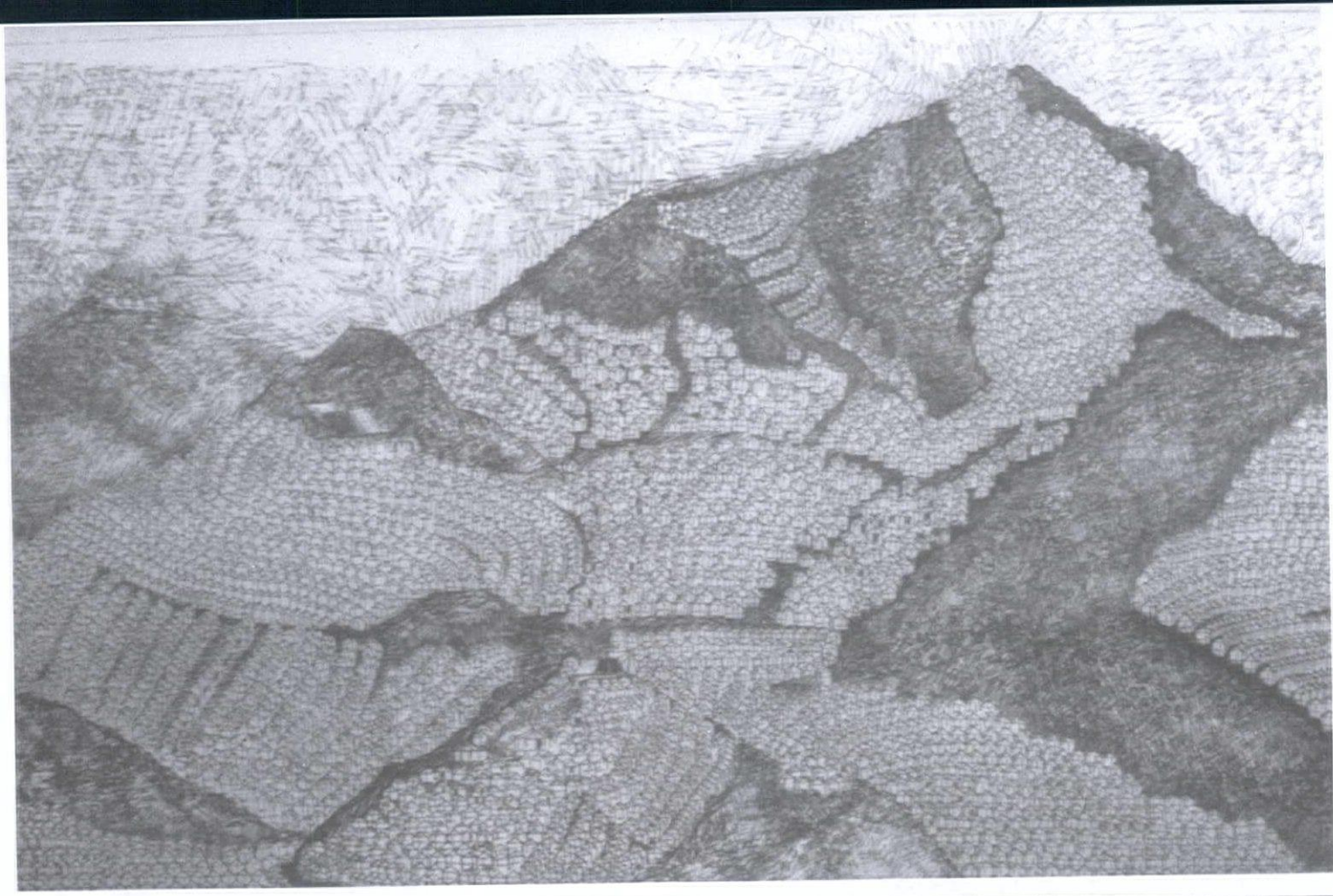
HAJJ TENTS
Architects: Atelier Warmbronn—Frei Otto, Nick Stones, Hannes Fritz, and Heinz Doster
Client: Hajj Research Center, Director Sami Angawi
Completed: 1981
Size: 4 m x 4 m x 1.7 m high
Construction: Canvas roof and walls, Fa Stromeyer (West Germany); frame, Fa Kauffmann (West Germany)

At least once in their lives, all Muslims who are physically and financially able are enjoined to make a pilgrimage (Hajj) to Mecca. The pilgrims (hajjis) traditionally live in tents for three days in the narrow valley of Muna, near Mecca. In many places the hillsides are terraced to allow for additional tents, scarring the landscape and fundamentally altering the holy area.

In 1975 the Hajj Research Center began searching for an alternate solution for housing the hajjis. In October 1980 Frei Otto conceived of the adjustable tent, and in October 1981 five such tents were erected in three days on the hillsides of Muna.

The mountain tent prototypes were assembled on rocky slopes with inclines up to 35°. Each tent is constructed of a tubular aluminum framework standing on extendable legs, and a 4 x 4 m plywood floor. Fire-retardant impregnated canvas forms the roof and walls, which contain a window and a door accessible by ladder. The tubular framework and simplicity of skin allows for theoretically unlimited extension in any direction.

9 HAJJ TENTS FREI OTTO 1981



HAJJ TENTS FREI OTTO 1981 10

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ILLUSION OF PERMANENCE

INTERVIEW WITH ARJUN APPADURAI BY PERSPECTA 34

ISSUES OF GLOBALIZATION ARE CENTRAL IN THE DISCUSSION OF THE TEMPORARY AND OFTEN UNSTABLE PROCESSES OF CITIES AND CONTEMPORARY LIFE. THE ANTHROPOLOGIST ARJUN APPADURAI HAS DEVELOPED CONCRETE CONCEPTS AND TERMS FOR UNDERSTANDING MANY ASPECTS OF GLOBALIZATION, PARTICULARLY IN CITIES LIKE BOMBAY/MUMBAI. THE FOLLOWING IS A TELEPHONE CONVERSATION BETWEEN THE EDITORS OF *PERSPECTA 34* AND ARJUN APPADURAI THAT TOOK PLACE ON 14 JULY 2002.

In preparation for this discussion, the following texts were consulted: Arjun Appadurai, *Modernity at Large: Cultural Dimensions of Globalization* (Minneapolis: University of Minnesota Press, 1996); Arjun Appadurai, "Deep Democracy: Urban Governmentality and the Horizon of Politics," *Public Culture* 14, 1 (2002), 41–47; Arjun Appadurai, "Spectral Housing and Urban Cleansing: Notes on Millennial Mumbai," *Public Culture* 12, 3 (2000), 627–51; Arjun Appadurai, "Grassroots Globalization and the Research Imagination," *Public Culture* 12, 1 (2000), 1–19; Arjun Appadurai, "Dead Certainty: Ethnic Violence in the Era of Globalization," *Public Culture* 10, 2 (1998), 225–47.

P34 From the social location in which you speak, anthropology, how do you understand the questions we raise in this journal? How do you think about architecture or building?

Arjun Appadurai Anthropology is notoriously capricious, even promiscuous in its interests, but I think it's fair to say that there is a revived interest—apart from issues of transnationality and flows and globalization—in the city. Urban anthropology had become for a while a somewhat small and specialized field, and although I have to correct for my own bias and interest and sense of my own drift, I think that's changing, that there is a more general resuscitation of interest in things urban. There are a number of reasons for that, not the least being the sense that in the city a variety of important trans-sectional and transnational things are being played out. There has also been a standing interest, which continues to be very active, in the problematics of space. Here, someone like de Certeau remains an important reference point.

As for architecture specifically, my interest in it is not a product of general theorizing or broad conceptual interests, but comes from a sense that it's catching a lot of vital debates and energies. The most salient fact is that in my recent work in India, and particularly in Bombay, I have been deeply impressed with the energy, fervor, and engagement that surround architectural circles both in terms of practitioners and in terms of teachers, students, and institutions.

There is a reflection going on among architects in India—which may well be part of something more widespread—about what we call a "crisis of the discipline": what does it do, what ought it to be doing, etc. That general problem has always interested me. While I recognize that there are debates going on in Europe, the United States, and elsewhere in the world, I sense that in places like India the disciplinary crisis, which may be ongoing in architecture and many other fields, including anthropology, is in a special and deep dialogue with the crises in social life and the development of things like urban planning and housing. This is not an inward-looking crisis but a crisis that is in a fruitful dialogue with a variety of other social crises and contradictions. Architecture is an especially

interesting site today, both in places like India and more broadly, because of the kinds of globalizing questions in which we are interested.

THE MODERN AND THE CONTEMPORARY: FLOWS AND RELATIONS OF DISJUNCTURE

P34 In developing a framework for *Perspecta 34* focusing on temporary architecture, we were interested in the ecology of mobile forms and processes that influence the contemporary built landscape—tourism, displacements and migrations, housing markets, protests, and disasters natural and man-made. You seem to claim that these processes, when understood in "relations of disjuncture," are significant in shaping the globalizing world. How are these relations of disjuncture particularly new or contemporary? In this regard, what is the difference between the modern and the contemporary?

AA How the idea of "relations of disjuncture" defines something new or contemporary is a tricky question. Clearly, elements of the kinds of things I refer to by using the trope of "disjuncture" can be seen in earlier times and in other contexts, but I think there are two or three things that might define the newness question. One is a relational answer, which is that while we have had things like migration and various forms of mass mediation for a very long time, and each has a kind of deep history, their special relationship—as I argue in my book *Modernity at Large*—seems strikingly different now than in times past. When you add more specific elements to that, for example the IT [information technology] revolution, which affects directly or indirectly many, many other things in its field of force, it's very difficult to see it as having a smooth or continuous history. If you further throw in the special force of the ideology of the market as a regulative ideology since 1989, you cannot easily see the global hegemony of that ideology in earlier periods.

All this is to extend the relational answer and say that, yes, the elements we look at all have their deep histories but their relations are strikingly different, and some of them, like the IT revolution, are plainly new. The challenge is that we cannot develop a strong theory of their newness precisely because the owl of Minerva has not yet flown. As my colleague and friend Keith Hart says in *Money in an Unequal World*, we are in the first few years of a revolution that could be as long or longer than the agricultural revolution. People who lived in the first decades of the agricultural revolution could hardly have been expected to spin out all its implications for the next several centuries and even millennia. In that sense, we are still groping and scrambling, but I think that doesn't make it impossible to sense that, say, the IT revolution is launching us into a different kind of technical and technological order. So there are a number of substantive ways to engage with the question of newness—I mainly do that by looking at relations between elements rather than focusing on single elements, like migration or mass media.

Another way one can make a convincing argument about newness is by looking at the logic of the dispersal of elements like mass media, market ideology, and electronic technology that have a planetary distribution that is striking in its reach, in its coverage, compared with earlier large revolutions, either ideological or technological. If you examine this dispersal, it produces unexpected relations between various orders of things.

In all of this is a dialogue with Marxist ideas about the relations among material life, technology, social relations, ideology, and so on. These ideas, directing us to look at the points of articulation between layers of social existence, have been our strongest assets for looking at these relations in a kind of general, and still inspiring, way. If you look at the relations of employment that are now part of the result of global corporate strategies, they clearly involve movements of people, skilled and semiskilled, into economic niches at very short notice. This completely confounds any crude idea that a particular economy seen in a spatially bounded way can have a simple relationship between base elements and superstructure elements, for example, because each of these layers can be seen as a part of global circulatory systems. So indeed there are vertical relations in this Marxist view, and Marx was by no means wrong, but the layers seem now to be inescapably parts of circulatory systems in their own right, and also at a global level.

Therefore, the kinds of causalities that underlie Marxist thinking about the relations among, for example, technology, production, and ideology not only have to be reconsidered but have to be reconsidered in an ad hoc manner depending on the situation. In other words, one cannot come to a given situation with a strong prior sense about how the causal flows work. That for me is what the word "disjuncture" captures. I use "relations" to refer to the strength of the Marxist approach, to say that these things are not simply randomly happening, that there are structured interactions between them. However, the forms of dispersal of these

forces—ideological, technological, and social—make it difficult to have a general *a priori* sense of how they relate to one another.

I would say a further word about the "new or contemporary" by going to the question on "the modern and the contemporary." The way I would make the distinction between the modern and the contemporary, which is a very generic way, is to say that *modernity* is a *project* whereas the *contemporary* is a *condition*. Different theorists would have different ideas of what is critical to this condition—someone like Anthony Giddens would see it differently from someone like Fredric Jameson, for example. The contemporary is a condition characterized by, among other things, the sorts of linkage, propinquity, and flow that I write about in my own work. It is the inescapable condition in which lots of actors and societies find themselves. On the other hand, the *modern*, and this is partly reflected in my title *Modernity at Large*, is not a fact, an epoch, or a stage but a vision, a conception, or a project. Therefore, modernity is now a project with a particular set of characteristics, given globalization as a contemporary condition. And because it is a project, it has multiple shapes and incarnations. The early idea that these projects were necessarily and somehow inherently convergent is one of the main things I argue against in *Modernity at Large* and elsewhere.

IMAGINATION AND THE PRODUCTION OF LOCALITY

P34 You often talk about the ways in which the imagination, alongside empirical experience, plays an important role in constructing spatial realities for people, for example, in cities. How is your concept of the production of locality a move away from a spatialized sense of the local?

AA The link between the production of locality and the idea of the imagination as a social practice (an idea I am still trying to develop further) is actually an expanded idea of the social. In that expanded idea I want not only to make room for the social as defined by reproductive logics—rules, regulations, and regularities, in the way that Pierre Bourdieu has spoken about them—but to make room in the social for projects, for visions, for wishes, and so on. And these defined in collective social ways, not just in personal, individual, and idiosyncratic ways.

The production of locality is a reminder that even the most apparently mechanical forms of social order that seem to function without design, contingency, or intentionality but simply by the force of routine—what we used to call habit—involve large amounts of deliberate attention, effort, and labor. Part of that attention, effort, and labor is involved in *collective ideas of what is possible*. Therefore, for the local to have some spatialized embodiment takes an effort which transcends that very spatiality. So the idea is not to, as it were, de-spatialize the local, or evacuate the spatial from the local, but to add something to it. That is to say, for mere spatiality to take its form, there has to be an effort, a "production of locality," which is much more complex. Once that effort to produce the local is fully observed, we will also, among other things, get a deeper sense of what it means to produce, inhabit, and sustain spatial relations. We won't have substituted something else for the spatial part of the local but will have enriched the logic of the spatial in the local.

P34 For architects this emphasis on both the material substance and the imagined social life makes for a challenge not only when reading the city but also when engaging in its design. What role do physical places—areas of a city, spaces in a neighborhood—play in the production of locality? How does the temporary quality of these physical places affect this production?

AA Physical places are very important in two inverse but related ways. I am thinking of my own informed sense of spatial practice and spatial logic in Bombay particularly. On the one hand, to go back to Bourdieu, insofar as physical spaces are what a person finds himself in, either brought to them, born in them, or exposed to them, they form part of the backdrop against which the work of the production of locality is done. Physical spaces are part of the material that individuals work from, draw on, to some extent take for granted, and in other instances highlight, sharpen, consciously use. On the other hand, physical spaces are also objects of the interests of lots of social actors. A lot of work is directed to the production, maintenance, reproduction, distribution, or enjoyment of physical places. Physical places in this broad sense—areas, spaces, roads, streets, locations—have a dual relationship with the production of locality. They form part of the condition of its production, and they also form an important part of the object of that production. One of the challenges is to take that dialectical relationship and introduce the play of contingencies to see that there is something more than simply mechanical production involved in this process.

Let me move briefly to the temporary quality of these physical places, getting close to the core of the interests of *Perspecta 34*. The immediate thing to say is that insofar as spatial arrangements—homes, habitations, streets, roads, construction of any type—are temporary, they

produce *anxiety*. In places like Bombay (and the question, of course, is how many places are like Bombay, and to what extent, and that is an open matter in my mind)—that is, very dense places with unequal access to spatial resources, volatile politics, and a growing crisis of governance and civility (in short, a description of many mega-cities in the poorer countries of the world and of some mega-cities in the wealthier countries in the world, too)—the temporary nature of a lot of physical places and spaces shoots the project of producing locality through with a constant under-text of anxiety. This anxiety is frequently articulated in collective forms, such as ethnic violence, about which I have written, and has large implications for the way politics is conducted in these cities, whether it's through ethnic violence or other forms.

The question of temporariness has a particular edge for victims of physical dispossession—the homeless, the under-housed, the badly housed—with whom I am particularly concerned in Bombay. For them many things in life have a temporary quality—not only physical resources, spatial resources, and housing but also social, political, and moral relations and relations to the sources of power. The production of locality is an effort to produce the sense of continuity in the face of the temporariness of things. A huge amount of their social energy and personal creativity is devoted to producing, if not the *illusion*, then the sense of *permanence* in the face of the temporary. The phenomenology of the temporary must be carefully distinguished by group location in the political economy of places like Bombay. The temporariness of things if you are a high-level speculator in the derivatives market of Bombay is very deeply different than if you are living in a viaduct in Bombay.

P34 Would you elaborate on the phrase "illusion of permanence" in the context of the social life of Bombay or cities like Bombay?

AA Yes, well, you know, I was using the phrase "illusion of permanence" because I've always loved it. It's the title of a wonderful book by Francis Hutchins about the British in India at the peak of their power. It's a lovely phrase because it captures a kind of desire of the imperial system, but simultaneously the anguish and the ambivalence involved in these things: the arrogant conceit of certain grand projects, like the imperial project, but also the humble thing that ordinary people seek constantly to create. As far as the bottom half of the population in Bombay is concerned, in many ways life is an effort to produce, if not the illusion, then the sense of stability, or continuity, or something like permanence in the face of the known temporariness or volatility of almost all the arrangements of social life—who is where, who can you love, what's available, where do you live, who has a space, will someone allot you a house, will you get temporary housing, etc.

In this regard, the project of the production of locality is an effort to work against the constant corrosion of the present, both by change and by uncertainty. All communities know that the work of producing their own humanity is tied up in being able to rely on what may subsist from today to tomorrow, from this generation to the next, and so on. In that sense, "the illusion of permanence" summarizes a very large amount of what people do in a quotidian way, for example, pumping up a kerosene stove on the pavement to produce your meal at nine o'clock with whatever it is you have been able to buy, scrounge, borrow, beg, or get. That is the production of the illusion of permanence, that you will have dinner tonight, as you will tomorrow night, and so on—if you are lucky. Its more ambitious end is the question of having a reliable structure—a roof over your head, a place on a piece of pavement, etc. But in a society in which both the site and the means of livelihood have a high degree of volatility for many people, the work of producing stability is very hard to distinguish from the struggle to get some sense that what you do and what you have might last until tomorrow.

STABILITY, COMMUNITY, AND THE BODY

P34 In *Modernity at Large* you introduce "diasporic public spheres" as a prevalent product of the cultural dimensions of globalization. If the city is made up of these diasporas, but also of ostensibly stable social forms and institutions, how are we to understand the relationship between the moving and the "stable"?

AA In a general way, I have referred to the distinction between *modernity* as a *project* and the *contemporary* as a *condition*. All groups in cities like Bombay have movement of some kind as a project in their lives, and movement of some kind as a condition in their lives. But for the poor in Bombay, movement is more often a condition than a project. That is to say, they are more often its objects than its subjects. By saying this, I am indicating that the question of movement and stability is deeply responsive to the question of where you are in the distribution of things in this kind of place. That said, to the extent that we look at cities as made up of these diasporas, the question is not so much an across-the-board relationship between diasporic and more stable forms and institutions.

Rather, for particular social groups, everybody in these places is to some extent tied up with networks of various kinds that extend well beyond the city. And for everyone, to some extent, they are nevertheless able to, or forced to, or wish to produce some kind of locally legible stability. Everybody is engaged in this tension. The really interesting thing is how one group's diaspora is another group's stability; groups in cities like Bombay form part of the socio-spatial backdrop against which other groups form their projects. So even if you have a group that is highly diasporic, insofar as it sediments itself in certain locations and takes up certain practices and occupations dealing with goods and trades in Bombay, it becomes part of the stable backdrop for some other group's vision and some other group's effort to move. We need a very sensitive picture of the social morphology of places like Bombay to attack the question of the relation between the moving and the stable because it is not an across-the-board, general law under which all groups exist.

P34 You have argued that ethnic violence is one kind of response to uncertainty and a way in which community is produced. In "Spectral Housing and Urban Cleansing" the material substance of the city—its spaces, infrastructure, and legalities—was the site where this was played out. What does that say about the relationship among the body, physical space, and the idea of community?

AA I have given a talk that is in the process of making its way into a formal, written form on my experience of Bombay in which I use the phrase "dirt and democracy." In that essay I make an analysis of the growing anxiety among the middle classes in Bombay, as well as their allies in the municipality, about practices of defecation, urination, spitting, etc. These are very serious issues in Bombay, and as you watch the discourse of cleanliness being articulated on billboards, in newspapers, in slogans, and so on all over the city, you begin to see that there is a series of things beginning to be melded together. The first one is that the poor themselves are seen as some form of social dirt. This harks back to the work of Mary Douglas in *Purity and Danger*, a classic work arguing that dirt is matter out of place. In Bombay the poor are certainly matter out of place, but they are also producing matter out of place—that is, urine and feces—in public places. It is a city dominated by homelessness, in which a large percentage of people have no access to sanitation. It is very common for seven or eight hundred households to share one, two, or three toilets—an impossible physical reality. Imagine, in a situation like this, also having to face an intense public discourse against the sullying of the city by urine and by fecal matter, and you can understand how there is a tendency to see bodily waste and the bodies of the poor as somehow connected.

In the case of Bombay and India we have an alarming tendency to see the crowded areas in which either slums or homeless people exist as part of the geography of undesirable minorities, in this case Muslims, and of people who produce political violence, these days often talked about in the idiom of terror. Some time ago, there was a major attack on the Red Fort in Delhi by people who were alleged terrorists supported by or directly from Pakistan. The newspaper coverage talked vividly of how these terrorists were able to make their way to the Red Fort by occupying the largely Muslim slums that surround it, going "like rats" through these small, crowded, filthy places to perform acts of violence. The discourse of this event, and of other events since, is a disturbing convergence of the horror of the state and the upper-middle class of bodily effluvia, number one, of the poor, number two, and of dangerous political minorities, number three. This is the dark side of the link among the body, physical space, and the idea of community.

Anthropologists, particularly, have always been sensitive to the positive dimensions of the ways in which many human communities have constructed their ideas of moral solidarity, social solidarity, and cosmological regularity by playing on signs, symbols, indexes, and icons variously deployed off the body as a foundational map of coherence. In the examples I have just given, we see the dystopian version. In those places of the world, mega-cities among them, where physical cohabitation has become enormously strained, the potential of the body to be a trope for community, for solidarity, trust, integrity, and integration, takes just the reverse form: bodies become a site for the location of fear, images of pollution, contamination, filth, and danger.

REDUNDANCY AND FORMS OF GOVERNANCE

P34 You mention "redundancy" as a concept that describes the competing and overlapping forms of governance taking the place of the nation-state. How is this an emerging concept for the organization of social life in cities, but also in relation to transnational definitions of locality?

AA In formulating the idea of redundancy, what I was trying to point to is that in particular societies in which we feel there is no rule of law, or

where there is a kind of chaos, on closer inspection it often turns out that there is a multiplicity of claims involving sovereignty, legitimacy, and power. It is a matter of too much, not too little. In the large cities that are emerging now as new forms of the city-state, as many people have suggested, or city-regions, to use another recent phrase, this is especially true. There is a multiplicity of claims in the idiom of power: over particular spaces, particular resources, particular relations. You have social forces, social movements, nongovernmental movements, popular movements, municipal movements, city governments, state governments, federal governments, all exercising very complex power claims over groups and bodies, locations, resources, etc. In a way, you could define mega-cities as engaged in a complex battle between competing claims to legitimate governance. You could even say that this battle is virtually a definition of what these city-states are.

As far as the transnational definition of locality is concerned, many of these players (social movements, municipal governments, regional governments, trans-federal governments) are infinitely linked to either their counterparts or other interests, not least global corporations, which are transnational forces, transnational players, transnational movements, and so on. The multiplicity of redundancy, the too-muchness of claims over legitimate power, is intimately connected to the transnational networks in which many of these agencies and movements are implicated and of which they are a part.

P34 How is a new "ecology of expertise" being shaped by emergent organizational forms like the Alliance, what you call a "deep democracy"?

AA This is a very central question to my own research. Movements like the Alliance, which I have studied in Mumbai, are doing what similar movements have done for some time, which is change the relationship between those in power and those outside of it, in particular to make a powerful knowledge claim, sympathetic to the thought of people like Paulo Freire. This Alliance brings together a nongovernmental organization called SPARC (Society for the Protection of Area Resource Centers), a grassroots women's organization called Mahila Milan, formed by former sex workers in one of the toughest parts of Bombay, and a national organization called NSDF (National Slum Dwellers Federation).

The poor know a great deal about their own experiences and about the conditions of their experiences. Those who claim to be concerned about poverty and improved equity in cities and societies as a whole need to make room for the expertise of the poor. Those mobilized populations among the poor who have become explicitly politicized in terms of urban and social governance are now making it a central part of their own ideological and practical strategies to say that they are looking not for knowledge but for an even playing field on which to exercise the knowledge they already have. This takes many forms, the most general being the cynicism in many pro-poor movements about all forms of technical expertise that are brought to them, on the grounds that it is, first, far removed from their own life, second, usually unilaterally imposed, and, third, proven to be technically worthless, for example, in relation to very concrete matters like water or housing.

Based on this, a new logic is being put into place. These pro-poor movements, including the ones I have studied, are seeking to become active partners in defining, for example, what it means to be a skilled builder. Rather than saying, "Don't tell us anything, we know everything," which would be a very simpleminded reversal, the answer is: "We would like to become players in the question of how you build adequate housing for the poor in a city like Bombay. We have ideas about finance, about design, about structure, about sewage, about drainage." At first glance, this looks like a kind of vague populist position, but it is actually a subversive position, because it calls into question the entire architecture of knowledge on which the post–World War II development machine is founded.

Depending on the context, depending on the project, depending on the issue in question, these contestations are restructuring what it means to have specialized knowledge. To take on one deep implication, there is a virtually complete divorce of the idea of effective knowledge and the idea of research among many of these pro-poor movements. That single matter completely changes the conditions under which expertise is defined. If you say "I am interested in reliable knowledge, but I really have no interest whatsoever in what you call research," we have the beginnings of the kind of debate in progress today. It is not just a matter of a contest over power and knowledge. It is a debate about the deep protocols that surround the production of knowledge.

THE POLITICS OF THE VISIBLE

P34 You have said that the urban poor in Mumbai are "citizens without a city." What is the politics of becoming visible for the poor in Mumbai? If it is not merely living in the geography of the city, what is it that makes one a citizen in a city?

AA Actually, to reverse the terms of the question, what the poor in many cases are seeking is the privilege of being *invisible*. They suffer from a surplus of visibility, as I have tried to suggest in some of my other work. One of the troubles with being poor, and certainly with being homeless, in Bombay is that you are on permanent view. A very large part of the production of locality, of the work of the imagination, of the labor and vision of social reproduction for the disenfranchised, for the homeless, the poor, in places like Bombay is how to cope with being permanently and inescapably on view. A lot of physical arrangements, including many of the arrangements that we would call temporary (pieces of cloth between rooms, strung-up plastic pieces over your head), have to do with insulation, from the wear and tear of natural forces, from noise, from pollution, but very often from the gaze of other classes, especially the middle classes, and of the state. In a way, what the poor often seek in places like Bombay is the privileges of invisibility.

From this point of view, citizenship is the ability to exercise effective power in the city in invisible ways, behind the front stage, by having access to people and relations to resources that do not have to be advertised. In a funny way, transparency is the baneful, unchosen condition of the poor. Although it's considered a virtue in the high-minded discourse of many governments, philanthropies, multilaterals, and so on, in fact it is a condition without a choice; it is a prison for the poor. They live in transparency. In short, this is the fishbowl kind of transparency. The power of people who are truly citizens in a place like Bombay is the power to—not necessarily corruptly but simply invisibly—have social effects in relation to their own social projects.

The poor have the least optimal relationship between visibility and power: too much visibility, too little power. What they seek is to reduce their visibility—not in the political sense of the term as a metaphor for voice, but direct visibility—in terms of the gaze, in the interests of affecting what has been called the nervous system of power in a city like Bombay. A bad mix of visibility and effective power defines the citizenship of the poor, and what they seek is to change that mix: less visibility, more power.

HOUSING AND THE POLITICS OF PATIENCE

P34 In "Deep Democracy" you state, "Housing can be argued to be the single most critical site of this city's politics of citizenship." What are the different causalities and relationships at work that make housing such a nexus of issues (ethnic violence, power inequalities, real-estate speculation, class proximity) in Bombay?

AA Housing, perhaps more than any other single dimension of life in a place like Bombay, brings together issues of what others have called recognition and redistribution. It is the place where questions of dignity, questions of equity, and questions of security come together. Housing allows you to pick the conditions of your own visibility. It doesn't make you invisible, it doesn't make you over-visible, it gives you a say in whom you are visible to, in who is visible to you, and under what conditions. The effort to combat the tyranny of the temporary is substantially addressed in a place like Bombay through housing.

What it means to be wealthy is intimately tied up with what it means to have "secure tenure." We used to think of tenure as being land tenure, and largely as an agrarian issue. It is now a profoundly urban issue through which the urban poor are seeking to make their spatial existence legally recognized.

Housing is also the place where key forces tend to crisscross on another dimension in which, like redistribution and recognition, it catches a maximum tension: in relation to technical and cultural matters. Housing is a place where infrastructure meets the living routines of social life. It is unlike sewage, drinking water, electricity, and many other absolutely critical forms of infrastructure. It is the place where such infrastructure meets issues of dignity, of style, of social standing, of all the things that make humans humans. No single other arrangement stages the complex and visible negotiation going on between technical and cultural features in social life. Given its nature, housing can always vanish, even for people who are economically very well off. For people who aren't, it often doesn't exist in the first place.

It is this tension, where these two axes meet, in which housing dwells. One is the recognition and redistribution axis, and the other is the axis, as far as urban morphology and design and materiality go, between the technical and the cultural dimensions of social life.

P34 How have the poor's needs to define their own space through what you refer to as a "politics of patience" and "deep democracy" rubbed up against the more abstract designs of planners, developers, and state authorities in Bombay?

AA A major issue in the politics of housing in Bombay is the question of relocation and rehabilitation for homeless populations that have been living along the railroad tracks. These populations have been at the center of the politics of the state versus the poor and also face the rage of middle-class commuters whose trains have been slowed down by shacks close to the tracks. Families live, in some cases, in temporary shacks two, three, four feet from where commuter trains run. Regularly people are injured or killed, and as a result these slum populations have

been slowing the trains down, sometimes stoning trains, causing damage, etc. This is a hot issue. These railway-track dwellers were being forcibly removed with tractors brought in by the city government and the railways to demolish homes.

One of the major triumphs of the Alliance is its success in breaking logjams that arose in negotiations among the Indian railways, the Indian government, the government of the city of Bombay, various municipal authorities, and the World Bank (which has a major transportation project in Bombay). The Alliance managed to make its way into this incredibly complex local, national, global politics by showing that it has the ability to persuade these slum dwellers to move to temporary quarters, in some cases built by the Alliance members, in other cases by the state. The Alliance intervenes on behalf of the urban poor, saying, "We will get these people to voluntarily move if you provide reliable housing, in a reliable manner, through our good offices—and we will promise that those homes you provide, in particular parts of the city, will not be abused, sold, put back on the market, etc. We will guarantee that we know who these people are family by family; we'll place them in a reliable way in the spaces allotted to them." They have peacefully persuaded the slum dwellers to demolish their own houses—which is revolutionary because demolition is usually what's done to them—on the promise of relocation.

This is possibly one of the great crises and dramas of urban governance involving housing in Bombay. It's an example of where the people who dwelled on these tracks were dealing with one of the cruel forms of temporariness, where trains are whizzing by two feet from your three-year-old child. They have shown patience in waiting for a better solution, and indeed that has been delivered by the Alliance, through its very complex forms of political negotiation and deliberation with other agencies.

The Alliance itself has shown its own forms of patience in the face of emergency. It has built up its political assets through patience in dealing with city politics, developers, the World Bank, and multiple other players. It has deployed all of that capital, which is itself built on the *politics of patience* in the face of emergency, to persuade these slum dwellers on the tracks to demolish their own homes, to bid good-bye to secure forms of temporary housing in exchange for uncertain forms of permanent housing. These slum dwellers had to be convinced that what is at the other end won't be taken away from them. That's at least an example of the play, the deep play, and the multiple levels of play, between different temporalities, different senses of emergency, and different forms of patience in the politics of housing.

The "rubbing up" of these two kinds of visions would be much more brutal, much more unproductive, much more sterile, much more violent, and much more zero-sum were it not for the negotiation by groups like the Alliance of the different urgencies and emergencies of the state and other agencies in relation to the urgencies and emergencies of the poor. The Alliance has managed to find points of mutual productivity, therefore preventing the kind of brutal frictions that often happen when these kinds of visions bump up against each other.

EXPERTISE AND RESEARCH

P34 The apprehension in believing in architecture's and urbanism's capacity to effect social change could perhaps benefit from a thorough understanding of how people imagine and understand their urban landscapes—how they negotiate the terms and conditions of the city's various economies. Could you comment on the difficult translation between how people imagine and produce these urban landscapes and how researchers and architects "read" these processes?

AA One of the things that poorer people do to negotiate the complex realities of the tensions between the temporary and the permanent, and so on, is constantly seek to be informed about the social forces at play in their environment. Everybody is doing this, but poorer people are doing this especially, seeking to amass as much knowledge as possible about who is who, what is what, who's related to whom, and why. For example, a newspaper boy who is dropping a newspaper at your place will see you talking to somebody else, and he will either ask somebody else or, if he can, ask you who that person was, or what she was doing, or why she was there. At first sight, it seems (*a*) irrelevant, (*b*) impertinent and rude, but what is happening is a constant archiving. In a general way, what the poor seek to do in cities like Bombay is to constantly renovate this archive of knowledge, of people, of relations, of resources. That in itself is a laborious process, but it is done all the time. You do not know what will become relevant at a particular point, when something temporary becomes even less than that, or threatens to disappear, or something unattractive becomes permanent: for example, you are totally without housing, and it looks like you will be that way forever. The relation of actors of this type, and their visions of who they are, what they are doing, and how they survive, to researchers and architects is very important, and I think it is at the heart of many of the crises we are all concerned with.

One point I began to articulate when we talked about expertise earlier is that as the urban poor become more politicized in places like Bombay, they are redefining the terms of the relations between key elements that we take to be associated, like research, theory, testing, hypothesis, intervention, and so on. We on the academic side tend to have a naturalized protocol between the relations of these things. The

poor are now in a position to begin to systematically disaggregate those things and to say, "To do A, why do we need B?"

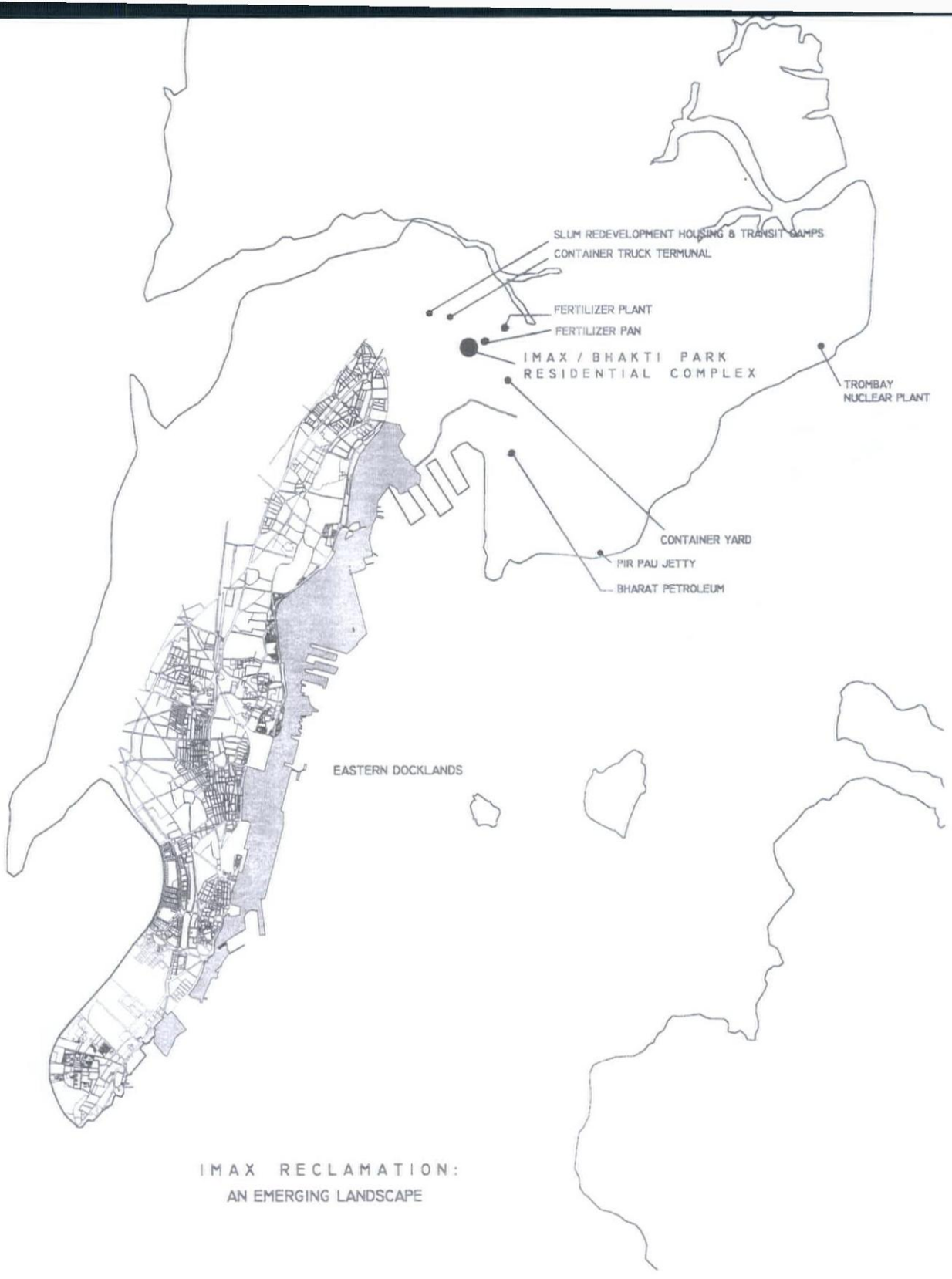
That is one site of debate, but the other is something even more central. It is the subject of another paper that I have just written in the context of a collective exercise undertaken by the World Bank in regard to relations between anthropologists and economists, between culture and development in relation to poverty, called "The Capacity to Aspire." The essential point here is that in the kind of dialogue of the deaf between anthropologists and economists, or people on the culture side and people on the economic side, anthropologists have essentially handed over the entire business of the future to economics. Culture itself is substantially, by however sophisticated a definition, seen as a kind of rearview mirror, habit, tradition, norm, etc., but always looking back. The question of the future—of people's wishes, choices, projects, visions, etc.,—has been more or less handed over to the domain of economics, of individuals' choices and preferences, and so on. What we in anthropology need to do, and I will come to architecture in a second, is first of all to recognize that there is a whole way in which the future itself is culturally formed as much as the past is. People in communities always have visions, expectations, plans, wants, and these are not just disaggregated, individual things; these are also formed collectively. We in anthropology by and large, with tiny exceptions here and there, have totally failed to catch this, and we end up therefore in this standoff with economists, saying, "You don't understand how people operate," and "You are too individualistic." That is all fine, but what have we done about it? Very little.

Within that general framework I have tried to argue that one of the capacities (in the language of capacity building that has now become standard in respect to the poor) is what I call "the capacity to aspire." The effort is to recognize that poor people have visions for where they would like to go, for hope itself, but aspirations need to be seen as more complex than simply isolated desires or wishes. This capacity, I argue, is not simply a generalized good but something that is unequally distributed. "Poverty" could be defined as having a bad place in the distribution of the capacity to aspire. I argue that this capacity is improved the more chance you have to exercise it. In that argument the recommendation is that we need to look carefully at how the capacity to aspire is distributed and why the terms of recognition are always skewed against the poor. It's not a cultural poverty argument saying that the poor don't have visions or hopes, but rather that this capacity develops only through use. Those who use it more, obviously, develop it more. And if you do not have the occasion to use it a lot, it is going to suffer.

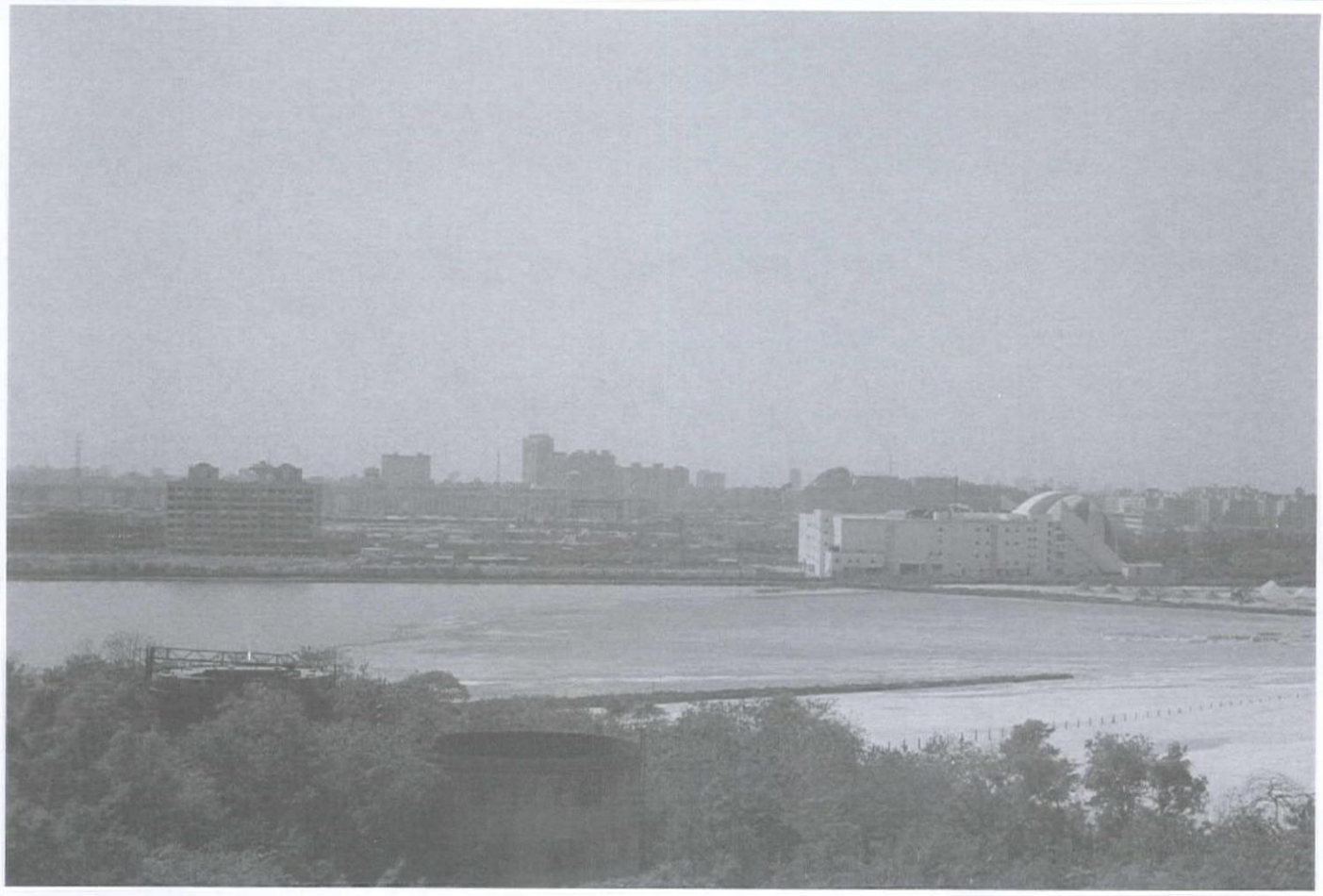
This brings me to the business of architecture and urban planning and these kinds of disciplines, in that they rarely take into account this aspirational faculty. They rarely take into account that the homeless, or the poorly housed, or the under-housed, or the disenfranchised have projects, have visions, have strong ideas about where they would like to live and how. More important, they have a particular place in this economy having to do with the capacity to aspire. In relation to housing and issues of built form and space, practices that architects and urban planners are involved in, they should not just add this understanding in but place this concern at the center of their work. So when you say "the difficult translation between how people imagine and produce these urban landscapes and how researchers and architects 'read' these processes," I would say that by and large researchers tend to precisely read the forms, but I don't think they adequately read the reader.

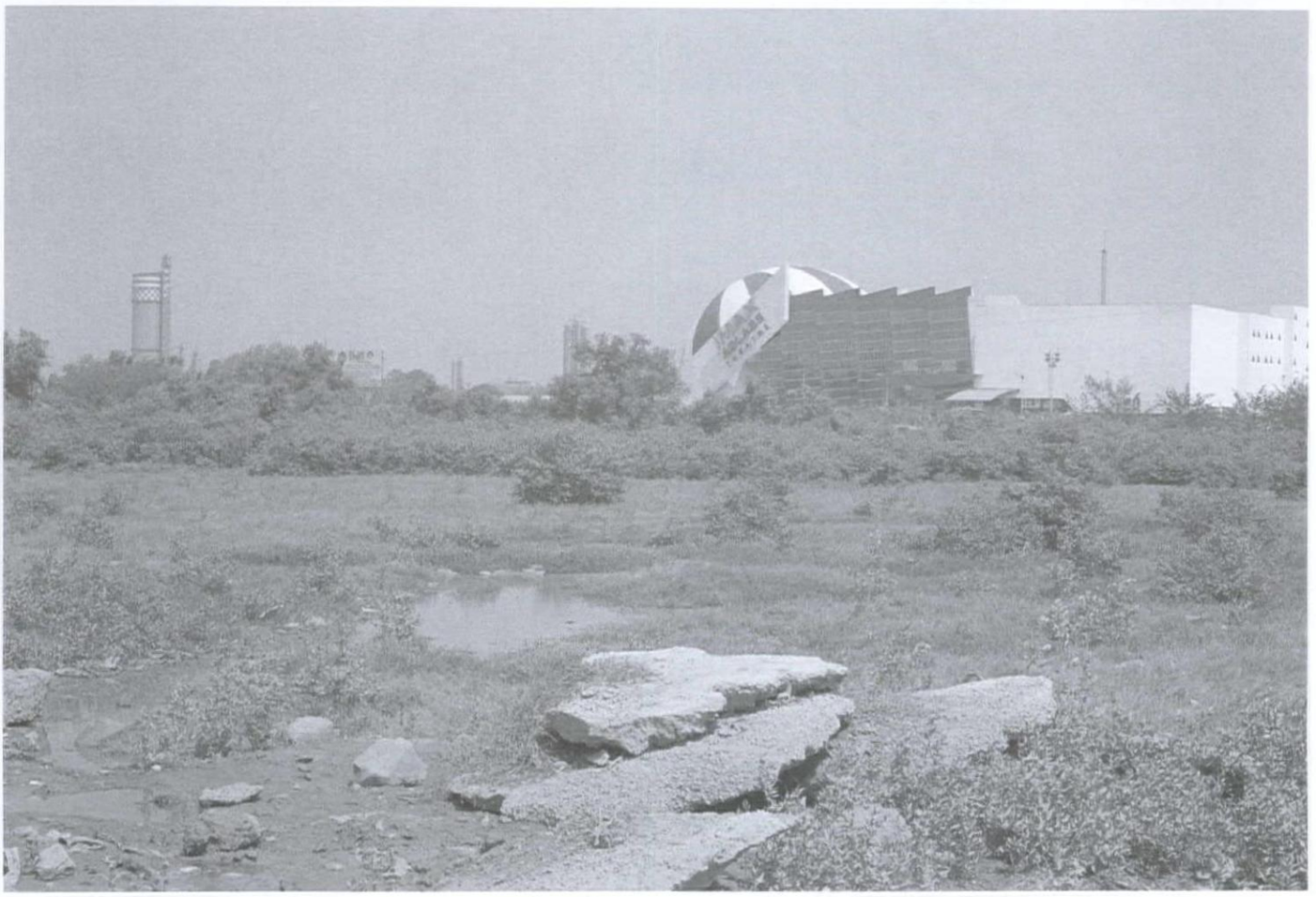
To put it simply, architects and planners often do not recognize that the people whose concerns they are seeking to address have very complicated aspirational maps, in which spatial issues play a part. The issue is not to cut straight through to get the quickest road from the designer's head or mandate or professional context to delivering the house, the road, the shopping mall, the train station, but to figure out where those elements actually might fit more fruitfully into strengthening what I call "the capacity to aspire."

Whether it is architecture, or urban planning, or a softer discipline like anthropology, which is simply trying to make an interpretive contribution, engaging that capacity, its distribution, and the forms it takes—that is the central challenge. In short, we need to be newly alert to the danger that in pursuing the aspirations of urban planning or the fantasies of architects, we might neglect the central asset we need to recognize: the capacity to aspire of the urban poor. Such aspirations centrally include the ways in which the poor might wish to shape their spaces. This fact should compel a new humility about the techniques and technologies of the expert.



MUMBAI IMAX THEATER
Curated by Carol A. Breckenridge
Schematic by Pankaj Joshi Associates, Mumbai
Photos by Rajesh Vora and Pankaj Joshi





The theater is located at the center of a wasteland that serves as a backyard for the eastern docklands, with parking lots for shipping containers, and as a front yard for a fertilizer plant, a chemical plant, a nuclear plant, and transit housing for slum relocations. The IMAX transforms this wasteland into a postindustrial landscape where families can imagine living. This cutting-edge theater complex promotes the Bhakti Park realty company, which,

14 MUMBAI IMAX THEATER CAROL A. BRECKENRIDGE 2001

following the inauguration of the theater, initiated its three-thousand-unit housing development. However, with its cracked dome and sinking foundation, the IMAX appears to have been constructed for obsolescence, built to bring families into this oasis, where the largest garden in Asia will engulf the new dwellings of Bhakti Park.

MUMBAI IMAX THEATER CAROL A. BRECKENRIDGE 2001 15

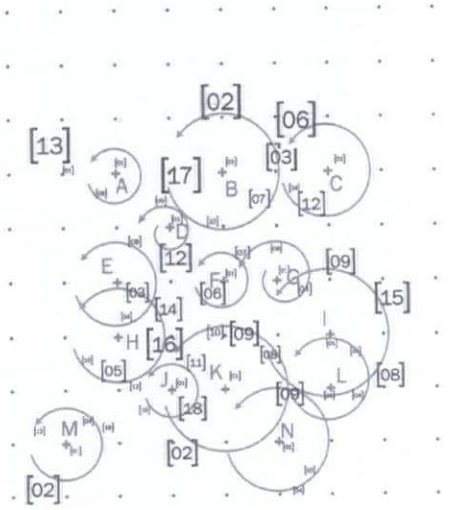
STIRRING STILL[1]

The city soul and its metaspaces

Raoul Bunschoten

0 THE SKIN OF THE EARTH WRAPS THE EARTH.
1 CITIES FORM THE SECOND SKIN.
2 THE DYNAMICS OF THE EARTH AFFECT THE SECOND SKIN.
3 THE INCREASING COMPLEXITY OF THE SECOND SKIN CALLS FOR THE DEFINITION OF A NEW PRACTICE—AND WITH IT A NEW TOOLBOX—FOR THE CONSTRUCTION AND MANAGEMENT OF CITIES.
4 LIKE THE EARTH'S SKIN, CITIES ARE PLASTIC ENVIRONMENTS THAT UNDERGO CONSTANT CHANGE. GEOLOGICAL FORCES CAUSE CHANGES IN THE SKIN OF THE EARTH. WHAT FORCES CAUSE CHANGES IN THE SECOND SKIN?
5 A CITY IS A LIFE-FORM. IT HAS EMOTIONS.
6 TO UNDERSTAND THE SECOND SKIN AS A DYNAMIC ENVIRONMENT REQUIRES AN AWARENESS OF ITS EMOTIONS. THE EMOTIONS OF THE CITY ARE CALLED PROTO-URBAN CONDITIONS.
7 PROTO-URBAN CONDITIONS AGITATE THE SECOND SKIN.
8 PROTO-URBAN CONDITIONS CAUSE CHANGE IN THE INCESSANT FLUX OF THE SECOND SKIN TO BRING ABOUT NEW PHENOMENA THAT SEEM TO FOLLOW LINES DRAWN ON AN INVISIBLE MAP—A MAP THAT PRESCRIBES THE BEHAVIOR OF CITIES.
9 THE CITY AS A LIFE-FORM HAS TO BE MAINTAINED—ITS EVOLUTION SUSTAINED. TO DO SO, PROTO-URBAN CONDITIONS MUST BE KNOWN, THEIR MANIFESTATIONS RECOGNIZED: THE DRONE OF THE TRAFFIC DISTURBS THE QUIET; THE WIND BLOWS THROUGH THE TREES, TAKING THE LEAVES; LUST DETERMINES THE BEHAVIOR OF THE AFTERNOON EXCHANGE DEALINGS—THE DOW JONES IS UP; FEAR AND DESIRE PERMEATE THE NIGHT; ALARM SYSTEMS GO OFF. THE CHAT ROOMS OF THE INTERNET ARE FULL OF PEOPLE PRETENDING THEY ARE NOT THEMSELVES, OTHER GENDERS. MEMORY BECOMES A TOPONYMY: HERE WAS ONCE A CHURCH; NOW ONLY THE NAME REMAINS.
10 HOW TO SEE? NEW PHENOMENA NEED NEW EYES.
11 IMMERSION IN THE CITY WITH NEW EYES MEANS WALKING THROUGH IT, ENTERING ITS FLUX, ENCOUNTERING EMERGENT PHENOMENA, RECOGNIZING THEM AS MANIFESTATIONS OF PROTO-URBAN CONDITIONS, SORTING THEM INTO BOXES.
12 BOXES NEED LABELS. NEW PHENOMENA NEED CARETAKERS.

1. This is the title of a text published by Samuel Beckett in *The Guardian* (London), 3 March 1989. As far as I know, it was his last published text. It is a beautiful phrase, since it contains both the dynamic stirring and the quiet or static still. We are often similarly pessimistic about cities and our ability to understand and interfere with their dynamics. But the more important connotation is the juxtaposition between the dynamic properties and the stillness, the slowness of matter and space that cities inevitably have as well. Think for a moment of the slices of ground and space that Gordon Matta-Clark found and documented between housing plots in a project presented at *Documenta X* in 1997. These slices are a completely unmovable piece of city, and yet they are moving for us when we see them through his sober registration.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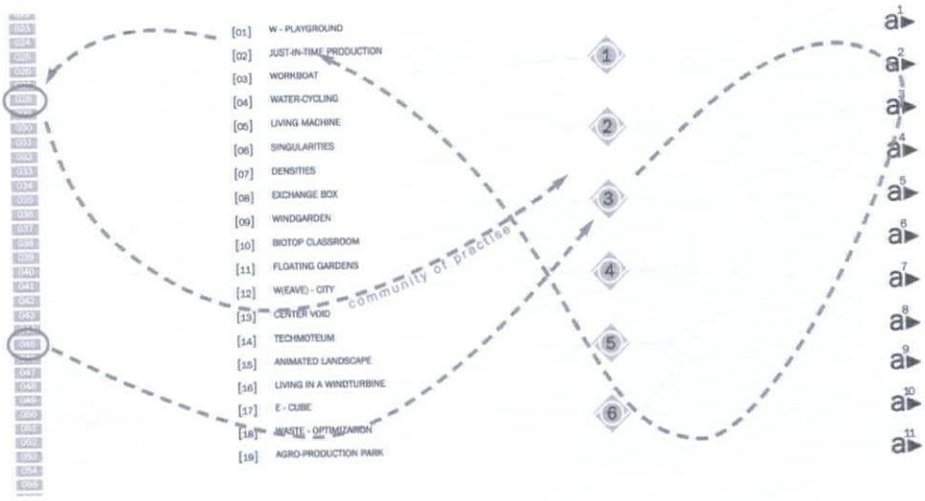
[01] W - PLAYGROUND
[02] JUST-IN-TIME PRODUCTION
[03] WORKBOAT
[04] WATER-CYCLING
[05] LIVING MACHINE
[06] SINGULARITIES
[07] DENSITIES
[08] EXCHANGE BOX
[09] WINDGARDEN
[10] BIOTOP CLASSROOM
[11] FLOATING GARDENS
[12] W(EAVE) - CITY
[13] CENTER VOID
[14] TECHMOTEUM
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[16] LIVING IN A WINDTURBINE
[17] E - CUBE
[18] WASTE - OPTIMIZARIUM
[19] AGRO-PRODUCTION PARK
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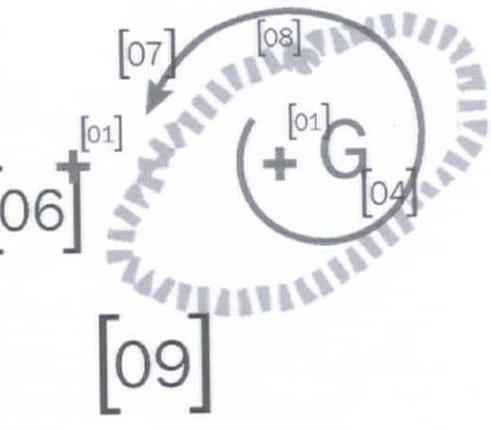
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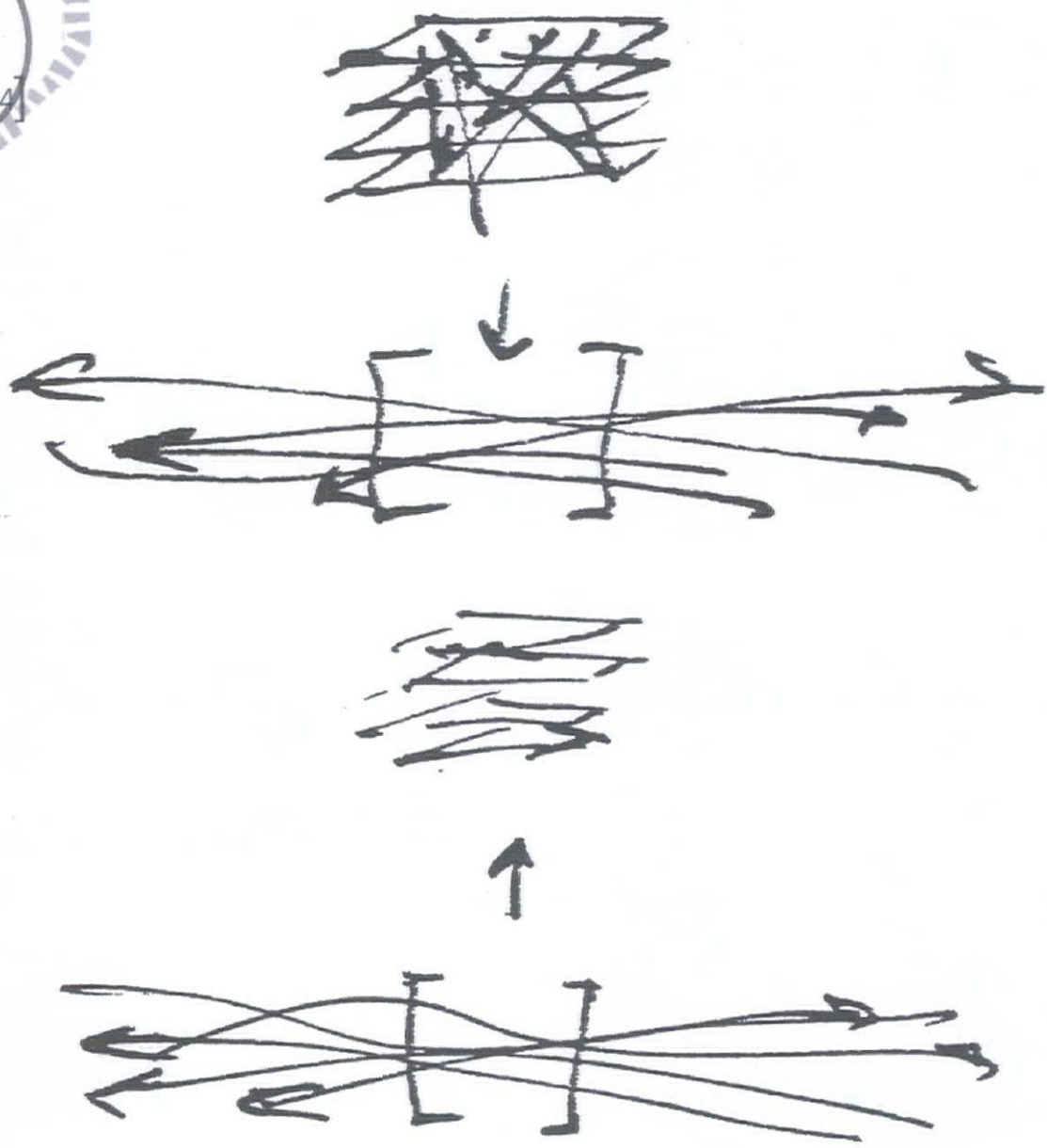
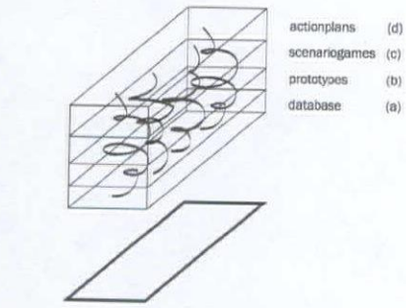
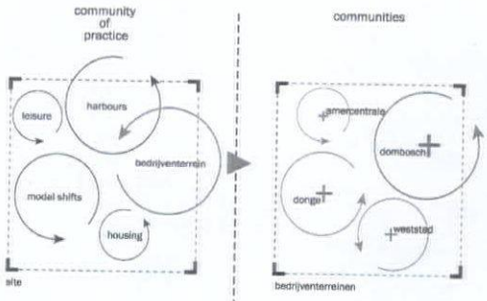
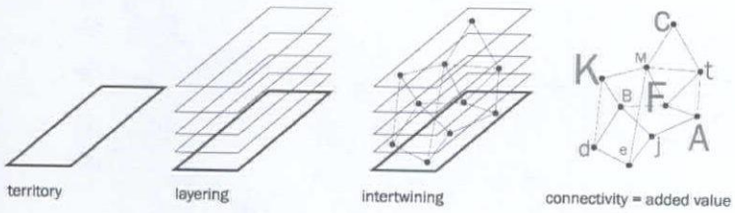


Urban Gallery

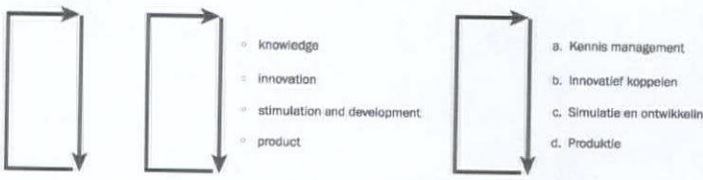


COP: from process to site

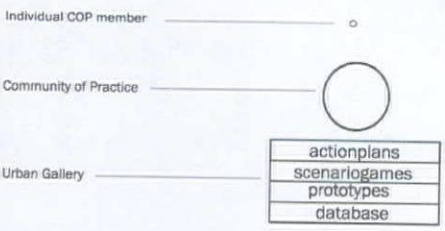




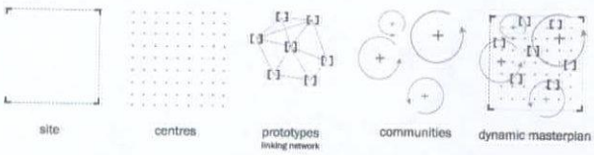
Feedback process



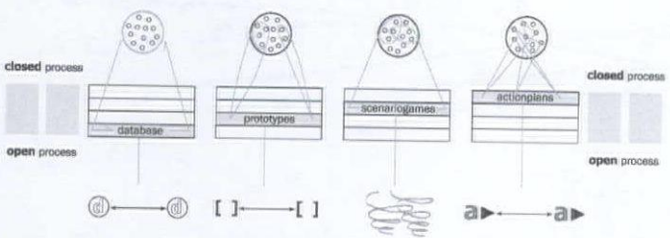
Organisation and Tools

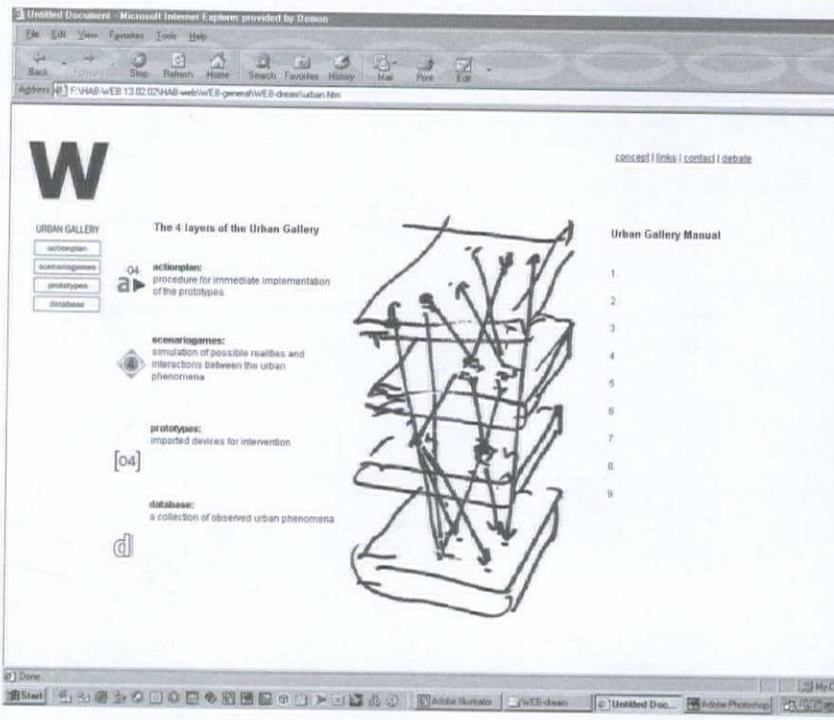


Dynamic Masterplan

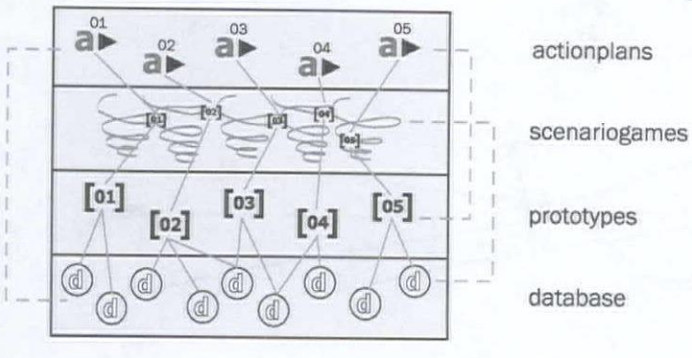


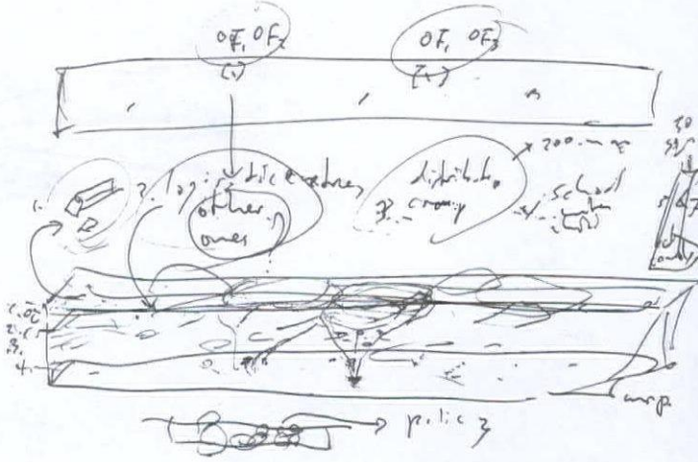
Distribution between the Urban Gallery and the COP





Distribution within the Urban Gallery





METASPACES

In the book *Fuglane,* by the Norwegian writer Tarjei Vesaas, trajectories of migrating birds observed from his garden become embedded in the mind of the protagonist, Mattis, a mentally disabled man, and are transferred into action: he tries to redeem himself in front of others by starting a meaningless ferry service between the empty banks of a lake. The migratory patterns give meaning to his life, even if there is no apparent substance to them. In them, Mattis enters a metaspace in which he can give significance to temporal figures: the metaspace becomes a closed space, a room separate from the space perceived by his neighbors. Unlike Mattis, however, the architect and the urbanist have to move constantly in and out of this room, as if through a porous cage.

Spaces in which we can see temporality are metaspaces.[2] They are spaces above or beyond the space in which we live, the Skin of the Earth. The metaspace has an innate ephemeral character. It is the site of the search for knowledge; it is the container of knowledge-management processes, but it is also a vehicle for the search for meaning in the dynamic chaos in which we live.

The metaspace is a vehicle for thought processes, a vessel in which urban consciousness has a chance to gel. When dynamic processes are given form, this form gives meaning to the processes, a handle to their understanding and, if necessary, their manipulation. The metaspace is the space in which this form becomes visual. Whether it emerges or is described is a second debate that depends on the character of the metaspace: self-organizing organism (life-form) or mechanical instrument. The challenge for us is to use this concept of a metaspace for the development of a planning instrument that is simultaneously a new public space for the interaction and intertwining of urban actors and their desires and interests. In the process of developing a specific metaspace as instrument, we are constantly oscillating between research and production: using the metaspace as a laboratory in which to learn and also applying the instrument to specific situations and urban environments, increasingly as commissioned projects.

The Danish scientist, scholar, and poet Tycho Brahe developed the world's first modern research laboratory on his island near Copenhagen. This laboratory aimed to describe the moving universe, its representation, and the instruments needed for its observation. Brahe created measuring tools for the universe that reflected the form of that which was measured. These instruments can be understood as mechanical metaspaces; through their use the dynamics of the universe became legible. But the creation of the laboratory itself generated another metaspace: what is called in recent management theory a "Community of Practice," in which a group pursues an aim through research and development but also sees itself as a learning environment. During the interactions the goals themselves are transformed, and the project is continuously reformulated. The group acts as a closed community, but simultaneously each member represents a discipline, organization, culture, geographic entity with which he or she brings specific interests and leaves again with new understanding and new agendas.

Brahe's island provided a temporary abode for many artists, scientists, and scholars who partook in his research, forming a community that played with the factors of the known and the unknown world.[3] The island laboratory became a prototype, followed by adaptations that proliferated as the members of this community later circulated throughout Europe and Asia, influencing science, trade, politics, literature, and geography wherever they went. Some people leaving the island became mapmakers in Amsterdam; they described the new space of seafaring and merchant ships and the growing cities. The island was an institutionalized metaspace and a semipublic meeting space, but the dissemination of methods and techniques created a new public realm that formed a new image of the world as well.[4]

URBAN GALLERY

The manifesto that weaves through the book *Urban Flotsam* ends with lines 55, 56, and 57:[5]

55 When a part of a city is designated a metaspace, it becomes an Urban Gallery—a fluid form of public space that evolves in time, generating different definitions of public space and different ways of participating in it. These definitions yield "floors" in the

2. I wrote about this in an earlier book, *Metaspaces* (London: Black Dog, 1998). "Metaspace" first was a fairly vague term that allowed us to describe the space of models and games, a space that was isolated from the daily reality and yet belonged to it. A chess game takes place in a metaspace: the game board, with its mix of simulated battles and real emotions. Since then it has grown into the name of a device, the container in which trends and other ephemeral phenomena can be simulated and in which interactions can be orchestrated. The term "virtual space" does not work in the same way: music can transport a person into an emotional state that is a virtual space. But this is a highly subjective experience. The metaspace should be understood as a *public* space that can be described precisely. The totality of the Internet in all its physical but largely invisible routings and flows of information is a metaspace.

3. John Robert Christianson, *On Tycho's Island: Tycho Brahe and His Assistants, 1570–1601* (New York: Cambridge University Press, 2000).

4. I recently argued at the European Union Conference on Globalization and European Cities (15 Nov. 2002, Copenhagen) that there has to be a similarly inspired initiative to observe the new Europe, with an increase of ten states and more to follow soon. New phenomena will emerge from the sheer size and multiplicity of the European Union that will strongly affect its urban identity. Already the Baltic states are rapidly moving from better-off Soviet republics to poor European states with a recognizable "European" look. And that is only how it looks on the outside.

5. CHORA (Raoul Bunschoten, Takuro Hoshino, Hélène Binet), *Urban Flotsam: Stirring the City* (Rotterdam: 010 Publishers, 2001).

spatial structure of the urban gallery. Metaspaces make it possible to bring the dynamic structure of scenarios into the flows of the second skin. A metaspace in the second skin is a public space, a public matrix.

56 Urban Curation is the practice of maintaining Urban Galleries, the metaspaces of the second skin. Urban Curators are the practitioners who manage the contents of these metaspaces. They oversee the production of scenarios and prototypes. They organize tables of negotiation, support the initiation and work of Liminal Bodies.

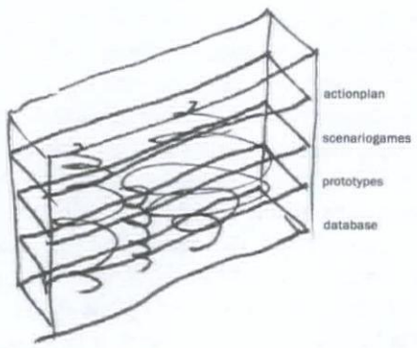
57 The practices of urban planning and architecture are evolving in the context of an ever more complex second skin. In collaboration with other practices, inhabitants, users, clients, decision makers, producers, and investors, these practitioners help to invent new urban forms and define the shifts in practice that are required for the management of these new forms. Urban Curators orchestrate this shift in practice, detect emergent phenomena, designate cities as metaspaces, form galleries, and curate their contents.

THE URBAN GALLERY AND URBAN CURATORS

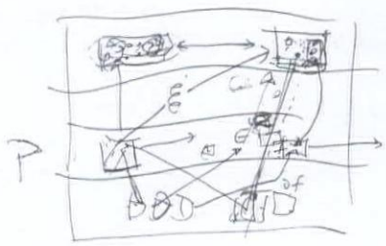
The urban gallery is a peripatetic instrument of instable, dynamic, and ultimately ephemeral phenomena. It is a device for the management of transient states. This management is done with the help of four service structures: the database, prototypes, scenario games, and action plans. They contain the following:

Database: mini scenarios and operational fields
Prototypes: urban prototypes as moving singularities
Scenario Games: simulation and testing of dynamic environments
Action Plans: theses that lead to the proliferation, adaptation, and implementation of the prototypes

The urban gallery is like a cabinet with drawers: four drawers contain the main service structures, but each drawer has another set of drawers inside it. However, the substance of the structure of the cabinet is porous—all contents communicate with each other or are linked according to specific trajectories.

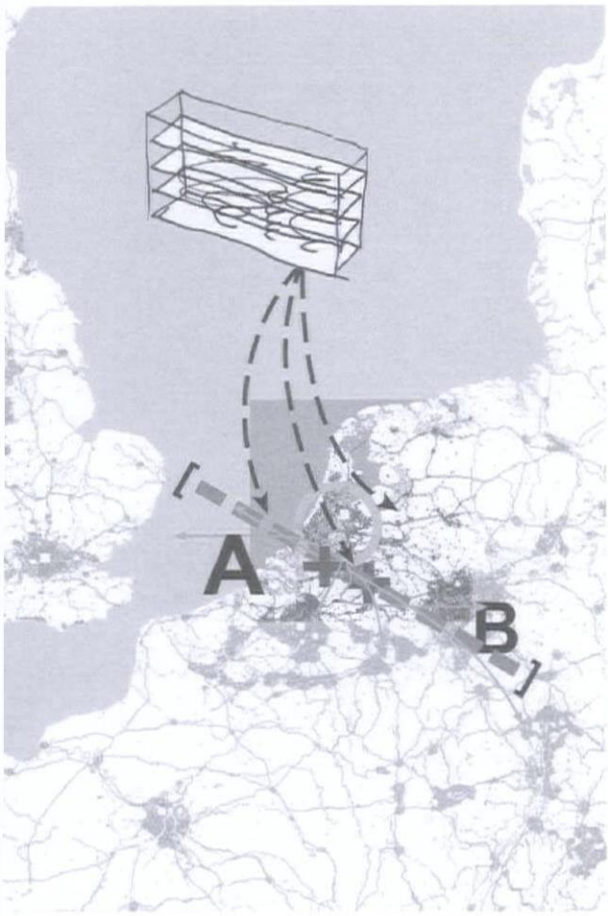


Urban curators observe emergent phenomena and, as keepers of the transient states, act as animators for the dynamic contents of the urban gallery. Urban curation is a new profession, although it can be recognized in many instances as being part of existing actions. In a recent competition project for the City Museum of Contemporary Art in Rome, we looked at curatorial prototypes that could cater to emergent and quite fleeting art forms that apparently disdain the institutional and physical structure of the museum. Our project sought to create an interactive meeting place in which curatorial prototypes intertwine different interests and actions in order to give form to a particular movement or vision. This development in curatorial practices in the art field inspired us to develop, together with the artist Jeanne van Heeswijk, the concept of urban curator.



Proto-urban forces caught in the lens of an optical instrument

The urban gallery is a *Taschenwelt* (a small pocket world that can be held in a hand) in which various forces and their configuration undergo constant change. This condition is illustrated by the emblematic image of a Viking knot in which two mythical animals are intertwined in a never-ending struggle for domination. The knot is a perfect model of transient states in which different programmatic elements of a prototype intertwine. For the Vikings the emblem became symbolic: the knot was used to present the dynamic conditions of the universe. The urban gallery is a space of intertwining, a space of virtual knots. It is like the Viking ships searching for new horizons: it moves



through the horizon of the Skin of the Earth. The urban gallery is a peripatetic tool that has no fixed place, no roots. It is limited only by its technical and linguistic conditions and by those of the curators and actors participating in it.

Knowledge management, moving singularities, and artificial life

The urban gallery is a knowledge-management tool that creates temporary holding patterns for knowledge and intertwines these patterns to fuel the urban prototypes. Inside one of the layers, the action plan, the thesis forms an inspirational core, containing deep research. This is something like the soul of the system, introducing a highly personal "wind of change." It provides the system with a kind of conscience and intention. This intention is aimed at the main product of the urban gallery: the evolution (adaptation) of urban prototypes and their proliferation through an action territory. Adaptive states shift the prototype forward into a multiple proliferation, the multiple proliferation shifts into new states or situations, and the prototype is forced to adapt.

In the context of educational collaboration, initially at the Architectural Association, later at the Berlage Institute and other institutes, we have created urban galleries as teaching experiments, turning them into temporary abodes in which teachers and students simulate the workings of the urban gallery in an urban context. The urban gallery in Sector E has been such an experiment. The experiment turns the urban gallery into an artificial life-form in which the main structure becomes an organism given "life" through the input of the participants.[6] The concept of "life organism" is both a metaphor and a reality: interactions in an urban gallery are like a life-form, but the intertwining of prototypes actually creates new evolutions of prototypes that introduce "newness" or "birth" into the system.

THE URBAN GALLERY IN ACTION

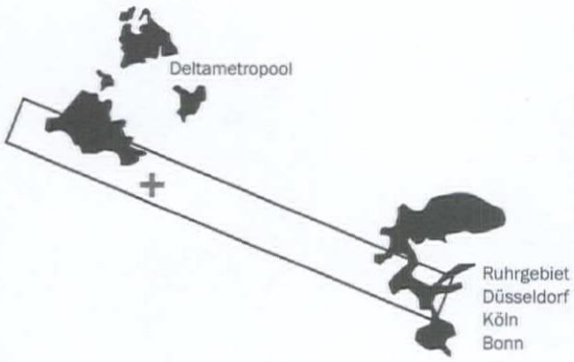
Project W, Sector E, and the Netherlands in the context of a new Europe

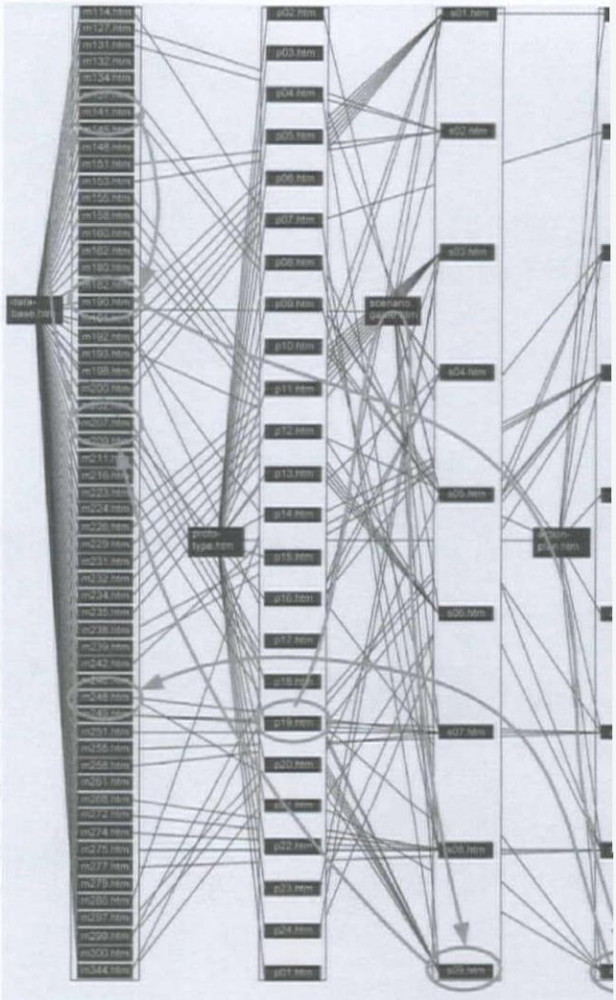
We are now involved in several projects that implement the urban gallery as a planning tool and methodology. In fact, we have become urban curators of a large organizational process to bring together a variety of actors who want to apply the urban gallery, and we are also training organizations to play this role. In the Netherlands we are working with a consortium that aims at being a Community of Practice. The consortium brings together planners on a national level, local authorities, private enterprises, and experts on a case project for a logistical node that simultaneously will be city and landscape. We act as process managers for this community with the help of the urban gallery. While this guidance is based on the intersection of individual interests, we also have to act as planners and begin to tune the urban gallery as an instrument to the processes of planning, implementation, and even inhabitation. We are now at the start of stage two and have introduced a game board into the site under consideration in order to orchestrate subgroups of the consortium, subgroups that have vested interests in specific prototypes but can interact with others. These groups we also call communities, but in this case the term "community" refers to the product: a community of inhabitants, users, and agents.

In the second stage we will take the Community of Practice through all four service structures: the database, prototypes, scenario games, and action plans. In previous projects the database has been structured with randomly distributed observation points, or "bean sites," named after the technique of throwing beans that we introduced to demonstrate the principle. Recently the database has been expanded to include a layer of operational fields alongside the catalog of mini scenarios. Each mini scenario is constructed with four basic processes: erasure, origination, transformation, migration (EOTM).[7] We introduced these basic processes in order to describe the dynamic properties of any randomly chosen point. Together they create a mini scenario that

6. See Manuel De Landa, "Artificial Life and the Potential of Evolution," paper presented at the Institute for Contemporary Art (ICA), London, 1995.

7. Erasure: the removal of things; origination: change initiated at a single point in time or space; transformation: continuous change from A to B; migration: things moving through. See CHORA, *Urban Flotsam*, 167.





one individual trajectory within the structure of links

contains both a narrative structure, following the sequence of EOTM, and a categorical structure, with which you can describe any dynamic condition. At the center of this basic set is a hidden metaphor, which comes from Takuro Hoshino, co-author of *Urban Flotsam*: the mini scenario is a seedling, representing the sequence of virgin ground, a seed being planted and growing, and new seeds flying away.

The project is not yet fixed in its location. It may move through a larger space, for which it eventually must act as a model project. This space, called Sector E, stretches from the harbor of Rotterdam—still the largest in trading volume in the world—into the heart of the Ruhr district in Germany. Sector E is an emergent Eurozone but also a site of the growth of a new urbanity. It is situated within the growing conflicts generated by the intensification of the flows of goods between this harbor and large parts of Europe. Because of the needs to regulate these flows, to invent dynamic systems for this regulation, and to manage the urbanization process, the urban gallery is a potential planning tool for Sector E. But for the time being, it is a support system for a model project inside it, Project W.

Transnational flows of many kinds—migration, expanding financial markets—are some of the products of the radical transformation Europe is currently undergoing. We have studied these phenomena at the Berlage Institute, where students have developed one or more prototypes and created action plans for their proliferation and adaptation in Sector E. This project will soon be on-line as an interactive version of the urban gallery. This is an experiment in real-time dynamics in which the educational space becomes a kind of metaspace. In simulating the evolution of an environment, the professional actors in the consortium for Project W gradually move through different stages of the construction of an actual and a virtual planning environment with concrete, physical products: a harbor, new landscape processes, new forms of living, education, and industrial enterprise.

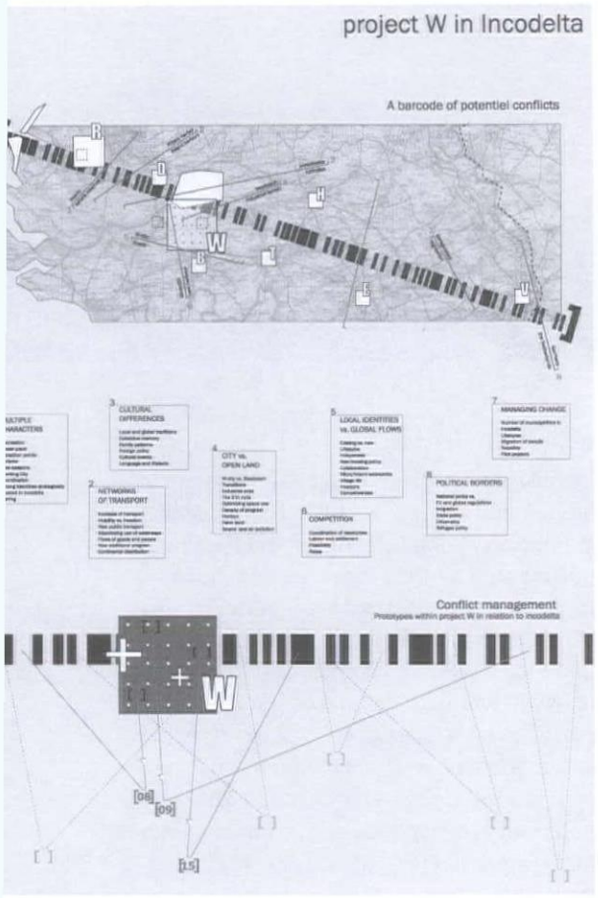
Ephemeral lands and temporary functions

There is an additional beauty to this project: parts of the territory lie within de Biesbosch National Park, where polders are gradually given over again to the oscillating forces of a natural river and tidal delta. There is a growing tendency in the Netherlands to give back land to natural forces as less agricultural land is needed and more land is desired for empty spaces and the return of a kind of wilderness. This wilderness is a cultural product that emerges with the growing understanding of ecological processes and the increasing fragility of the earth's environment. This shift in perception of the nature of rivers, the sea, and other forces gives the constructed land in the Netherlands a new ephemerality. Constructed land is now sometimes "given back to nature," as it is put with great sentiment, or it is defined in terms of natural processes rather than land use. This makes it possible to build such processes into a dynamic master plan for a city, if this dynamic master plan itself consists of projected processes and the intertwining of, sometimes temporary, functions.[8] The dynamics of nature become a source of inspiration: "the dynamics of the earth affect the second skin" (manifesto line 2, *Urban Flotsam*) on a programmatic level.

The intention of the game board—and its rules of rotation around community centers—is to structure an artificial set of mechanics that echo but do not imitate the dynamics of the first skin. In Project W there will be a gradual implementation of prototypes and the programs that create the flesh, or critical mass, for them. Over a period of time prototypes will start to intertwine, either naturally or induced by members of the Community of Practice. The evolution of prototypes and successive intertwinings will have to be planned carefully with what Keller Easterling has called "protocols."[9] These will engender different

8. See Louis H. Kauffman, *On Knots* (Princeton, N.J.: Princeton University Press, 1987).

9. See Keller Easterling, *Organization Space* (Cambridge, Mass.: MIT Press, 1999).



states, temporary and ephemeral, in the development of a city.

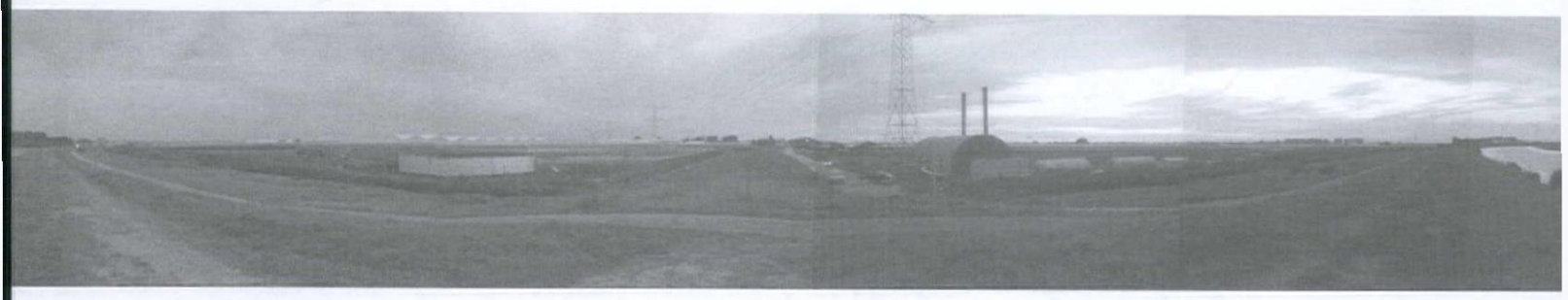
EU changes: center and fringe

We are currently working with Copenhagen X, an organization formed by the cities of Copenhagen and Frederiksberg, on a project that aims at developing a ten-year vision for the initiation of new projects and a broad base for participation in the decision-making processes surrounding those projects. Copenhagen X originated as a plan for a ten-year version of the Internationale Bauausstellung in Berlin, a kind of building exhibition, but now the organization wants to include more layers of the population in these planning processes. Our involvement grew from staging a workshop about participation through scenario games, to an application of the urban gallery as method and tool. Scenario games by themselves cannot be sustained and are merely incidental without the participation of serious actors with a vested interest in the prepared projects. We have an agreement for the creation of a test database and a working list of urban prototypes and scenario games for the spring of 2003, after which some form of action plan will be defined.

Denmark is part of the European Union and chaired it in 2002, and that formed the context for our invitation. There are big issues of democratization in Europe these days, especially for countries from the former Communist East bloc that are set to join the EU. As one criterion for membership, they have to show transparency in their democratic processes. This is a tough tests for countries with long legacies of Communism. In Bucharest many civil servants have been in their positions since Ceausescu, and most people now professionally active grew up under his regime. Ten years—the proposed time frame for these countries to join the EU—is a short time to transform the main structures of a society. In countries like the Netherlands there are other kinds of democratization processes, such as protest votes against the perceived estrangement of society as more immigrants change the demographics of populations. More mobility and heterogeneity in general have brought new parties to power and changed the directions of several states. So while we praise the advances of mobility and technology, there is a backlash to the consequences of these issues.

The integration of immigrants is a very difficult issue in Denmark, one that has to be dealt with in combination with other, more traditional issues such as traffic, quality of life, jobs, and ecology. Linking these and other issues through prototypical projects enables us to bring in the Trojan horse, and within its belly the issues of immigration and different lifestyles. The many ephemeral aspects of this method are like stepping-stones to get to particularly delicate projects; indeed, the full complexity of the urban gallery is needed to move forward. The urban gallery as a tool and methodology that processes knowledge and also supports exchange enters this space in which many conflicting issues and desires become interlinked.

With the current shift toward more conservative attitudes in governments such as those in the Netherlands, Austria, Norway, Denmark, Italy, and France, there is another movement that acknowledges a shifting world and tries to cope with its new identity and dynamics. This movement, or movements, is not yet very strong and determined, or at least not very operative. Urban planning has a much bigger role to play in these political trends. As a discipline, it touches on issues such as migration, mobility, changing lifestyles, new technologies, and mutating financial markets; it is ideally poised to create powerful experiments that are both real in their effects and politically influential. In Copenhagen we want to test the urban gallery to see if it is a practical and politically effective instrument.



At the time, Denmark was currently presiding over the EU, giving the experiment Copenhagen X relevance to the search for new planning policies in regard to the pressures of so-called globalization on European cities. Recently, at the EU Conference on Globalization and European Cities, I asked if the Copenhagen Charter that was going to be signed was radical enough.[10] The charter seeks more integral approaches to the conflicts caused by globalization and, among other things, more participation.[11] It also asks how we can preserve the identity of cities. But what it does not ask is how do we deal with the planning and orchestration of new identities, of radically changing populations, of very different lifestyles. Saskia Sassen, also at the conference, suggested that the new logics of cities consist of interlinking circuits, each with its own globality and, I presume, temporality. Knowing these circuits and understanding their behavior are becoming increasingly what I see as the tasks of the urban gallery. Sassen's analysis is powerful: a world of interlinking circuits that join in places—the cities as we know them—but that also cause innumerable cracks, new boundaries, inside these cities. The problems in Bucharest will come home to Copenhagen and Rotterdam (when Romania is allowed in the EU with the second tier of eastern European countries), because these problems are connected to these cities through undercurrents, or proto-urban forces. Our cities need new technologies of governance, as are being debated in the EU, and new practices of planning, which are not yet on the agenda.

With Copenhagen X we have now started a database of four thousand randomly chosen points, which may become a veritable "book of the city" with an encyclopedic range of trends and latent or real conflicts. Furthermore, a list of current and potential prototypes links a variety of operational fields touched on by the four thousand mini scenarios—operational fields that are describing the "circuits" Sassen spoke about. We have successfully staged a set of test scenario games with students from several institutions, planners, and civil servants from a variety of European cities. We aimed the scenario games at several real and urgent concerns: the effects of the metro in different parts of the city, the combined harbor-renewal projects, and the regeneration of housing stock, among others. The results were striking: very quickly you can introduce and simulate the development of quite radical propositions—for example, the imposition of national-park status on the combined, and nameless, harbor waters of Copenhagen. Because there is no national park in Denmark, this is immediately both an urban prototype and an act of parliament. These propositions are not designs but merely simulations of possibilities. I enjoy these moments of a flickering of new reality—or possible realities, as Dalibor Vesely would call them—in lieu of real possibilities.[12] They may not be realized, but their mere appearance, ghostlike, can be a factor in changing a blueprint. Copenhagen X is the first urban curator. It has the potential to curate both what is important for the city's future and the means to achieve new configurations of this future.

Meanwhile, on the fringe of Europe, high in the north of Ireland, we have been involved in ongoing attempts to implement the urban gallery as a method for small communities to move from parish status into new forms of municipality. These communities are under pressure from both the EU and global financial and migratory flows—in this case, partially the re-immigration of Irish people into a booming economy. The urbanization of this fringe, with all its worldliness and apparent cosmopolitanism, contrasts with the vestiges of the Catholic Church's authority, and the recent history and still current emotions and occasional flare-ups of the conflict in Northern Ireland. There is an ephemerality to policy and decision making that tries to react to the global pressures that act as proto-urban conditions on the local communities. Indeed, this ephemerality manifests itself in a temporariness—and often arbitrariness—of rules and regulations that create constantly shifting identities and towns that change character very quickly. Some people are writing new plots all the time, and others are losing the plot altogether. New civic structures must provide the metaspaces through which these different parties can move in order to intersect and internet, even if only for short but focused moments of speculation on conjoined futures. So far, attempts to create a new level of political administration for municipal-scale organizations have failed for various reasons. Perhaps the development of a metaspace as building, a constructed urban gallery—almost a *contradictionis in termini* in the small but regionally important town of

10. "European Union Conference on Globalization and European Cities," 14–15.

11. Copenhagen Charter, "European Union Conference on Globalization and European Cities."

12. "Possible realities" and "real possibilities" are two phrases Vesely coined during a conversation at his north London home sometime in the late 1980s.

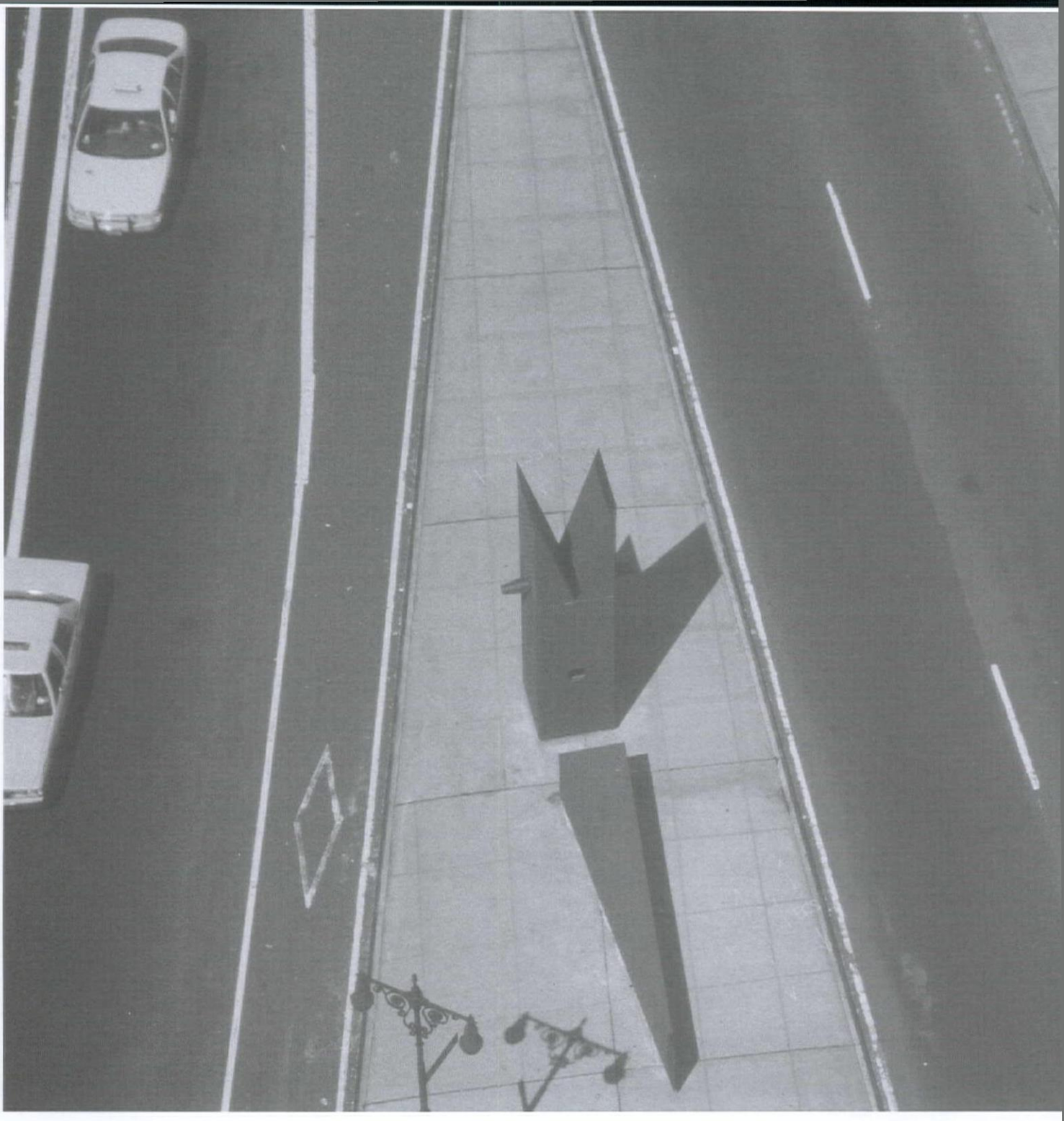
Carndonagh—will prove successful, but it is still too early to tell.

The metaspace is a virtual box. In the case of the building for Cardonagh, a theater and cultural center, it is a real box that needs real management by a newly formed cultural manager: an urban curator. Our duties include forming the local committee into an actual client body; here the jobs of urbanist and architect flow into a fluid knot. However, it remains the virtual box in which planning on an urban scale takes place. The need for temporary inhabitation in this virtual box, in search for the wind of change, is the need for an animator or *animus* that gives life to a community. The box is but a necessary angel, as Wallace Stevens calls it, a messenger that bears the soul of a community.[13] Gordon Pask saw some of this emerging in an early stage, when we collaborated in a unit at the Architectural Association in London for several years in the early 1990s. But this expert on cybernetics, and one of the fathers of the computer, could see things about the dynamics of urban states that we were only just beginning to explore. He could see the importance of urban "behavior" and the role of emotions in urban decision making. For him the concept of the "soul" of the city was not so strange, since it related to neurological conditions and consciousness. He had something in mind that I never fathomed: urban systems that would have some form of consciousness and would act like brains and at the same time would be able to adapt to new forms of cultural production and changing rosters of urban actors and their needs. He developed an actor theory in which interaction and negotiation would be run according to cybernetic principles.

The urban gallery is in fact a system that orchestrates the conversation between actors in the urban domain. But to get into the unconsciousness or unseen consciousness of a city, you have to develop means to tease things out, and the randomly chosen sites we use offer an opportunity for this, combined with the highly systematic and basic set of processes (erasure, origination, transformation, and migration) that determine each mini scenario. Urban narratives—mini scenarios are a form of urban narrative—are ways into this manner of thinking, shortcuts into the consciousness of a city. Mini scenarios and the processes that describe them are the necessary raw materials for scenario games. But mini scenarios are also like seedlings in a garden. Creating the future colors but *vergaenglich* (eventually perishing). John Hejduk, the self-described "block watcher" of his Queens street, is the master of the urban narrative and the ephemeral presence.[14] Somewhere there is a space in which Gordon Pask and John Hejduk meet—narratives that feed a complex interactive system to create the potential or even guarantee of feedback, of plausibility, and to give it sense. The founder of an expanded view of cybernetics and the founder of the urban narrative, both with incomplete projects in hand, intertwine somewhere above the Atlantic Ocean.

13. See Wallace Stevens, *The Necessary Angel: Essays on Reality and Imagination* (New York: Vintage Books, 1955).

14. From a conversation at his house sometime between 1996 and 1998.



CONCILIATOR
Designed and fabricated by Martin Finio and Kevin Fischer
Construction: 5' x 5' x 20' timber-framed chamber; 16'-long wedge form at its base
Location: Intersection of Twenty-third Street, Broadway, and Fifth Avenue, New York City

Constructed in 1995, *Conciliator* was the seventh such piece realized based on the drawings of the late John Hejduk.

Conciliator was inspired by Hejduk's 1989 *Berlin Masque*, in which Hejduk invented a symbolic order made up of an accumulation of allegorical programs and structures: wind tower, watchtower, pantomime theater, book market, maze, arbitration hall. ... Looking into the chamber through a 12" x 12" aperture, one sees a steel I-beam bisect the face of the viewer on the opposite side. Sunlight filters in through two perforated planes, each surfaced in gold leaf on its interior. It is a displacement from site, author, and time, a new center slightly lapsed from the original. Each group is an extended arm, and each structure a new intonation of the original voice.

16 HEJDUK: BERLIN MASQUE PROJECT MARTIN FINIO/KEVIN FISCHER 1995

HEJDUK: BERLIN MASQUE PROJECT MARTIN FINIO/KEVIN FISCHER 1995 17

COLLAPSE OF TIME
Raoul Bunschoten and AA Students
Construction: steel legs, shoes, ties; wood truss, panels, numbers
Location: Bedford Square, London

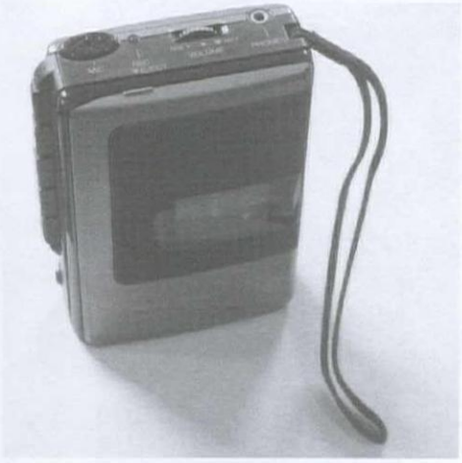
Beginning in 1986, members of the Architectural Association constructed Hejduk's *Collapse of Time* in a public square in London .

Collapse of Time is one of sixty-seven structures designed by John Hejduk to commemorate the victims of the Gestapo, to be built in front of its headquarters in Berlin one at a time over sixty years —"incremental place, incremental time." The axle is a pivot for different identities: Upright, a clock tower merges seamlessly with the horizontal truss on wheels—a centaur. At 45 degrees the two parts become disjointed, the tower caught by the arches—tensed like a cat about to spring. When horizontal, the tower seems completely disengaged—all animality gone, a coffin lying in the center of the hearse, the wheels waiting to transport the cargo.

18 HEJDUK: BERLIN MASQUE PROJECT RAOUL BUNSCHOTEN ET AL. 1986

HEJDUK: BERLIN MASQUE PROJECT RAOUL BUNSCHOTEN ET AL. 1986 19

A Dean & DeLuca Coffe with Krzysztof Wodiczk

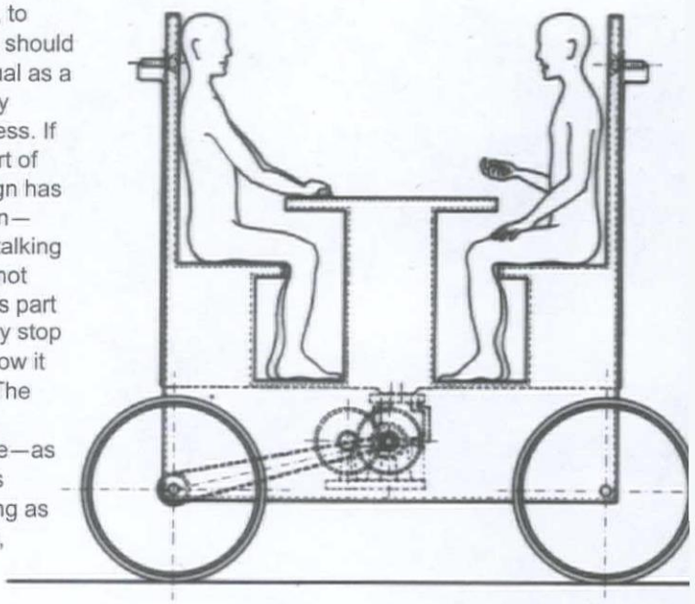


On January 7, 2003, *P34* recorded a conversation with artist Krzysztof Wodiczko at the Dean & DeLuca coffee shop on University Place in New York City. The conversation picks up after *P34* proposed republishing *Vehicle-Café 1 + 2* (1977–1979).

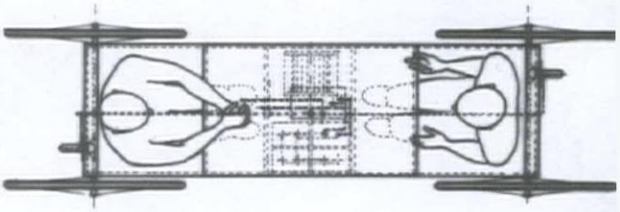
Krzysztof Wodiczko: It is not that I like to be recorded, but for the record I will respond as a kind of coffee shop conversation.

Your idea, as I understand it, is to take a ride on my vehicles. That is, to make use of my work in your own way. I am very glad that these vehicles have any use, because I am always trying to be useful, all my life.

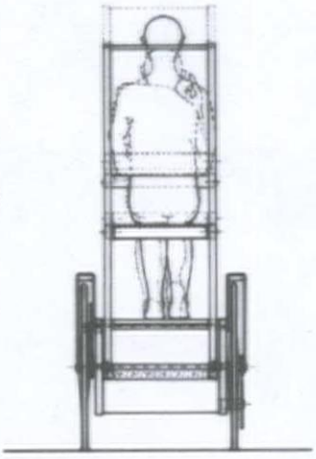
These *Vehicle-Cafés* comment on intellectual discourse in the context of speech, communication, sharing ideas, and its relation to the real world, the ground, with the emphasis on elevation and detachment of intellectuals. The *Cafés* also comment on hope, vision, utopia, or propaganda—whatever construct is behind the intellectual as someone who contributes to progression, progress, to moving ahead. But it's clear that one should question this position of the intellectual as a fixed motor of a machine designed by somebody else in the name of progress. If the intellectual is such an integral part of the entire machine in which the design has a preconceived notion of the direction—linear, no left, no right—then we are talking about imprisonment. It is a situation not unlike that of Sisyphus, where work is part of a prison, because the moment they stop talking, the vehicle stops. Yet somehow it doesn't really matter what they say. The microphones behind their heads are connected to the starter motor engine—as long as they keep talking, progress is guaranteed. In *Vehicle-Café 2*, as long as they are expressive, bodily speakers, progress is guaranteed.

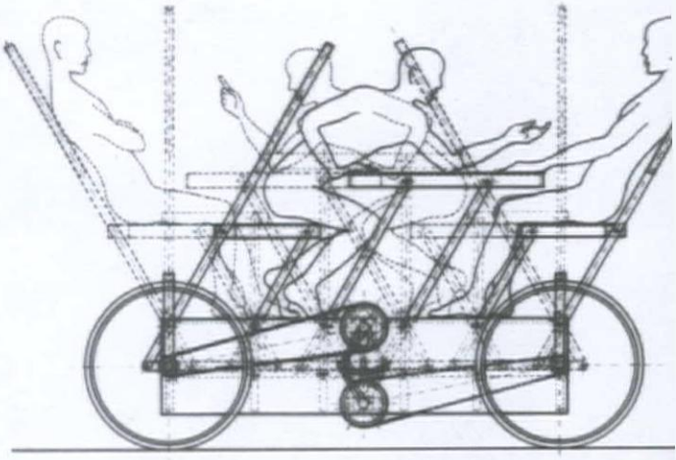


Both are illusions. All of this is part of a machine that is preconceived. Therefore, no matter what the people say, as long as they don't step down, as long as they are no longer sitting, or walking, or joining others in some kind of exchange, merging with other movements, being part of something else, the machine is working. So is this their machine or somebody else's machine? Who is the designer? Or are they the designers of this machine? This I do not know, because, to some degree, by using it they are legitimizing its operation.



The context of these drawings is Poland in the 1970s. This was a time when the whole state was a work of productivist art. The whole propaganda system—without the consciousness of anybody—was very much a monstrous realization of utopia, of that kind of machine, in which there was a place





↗ *Vehicle-Café 1* (1977–1979). The microphones behind their heads are connected to the starter motor engine—as long as they keep talking, progress is guaranteed.

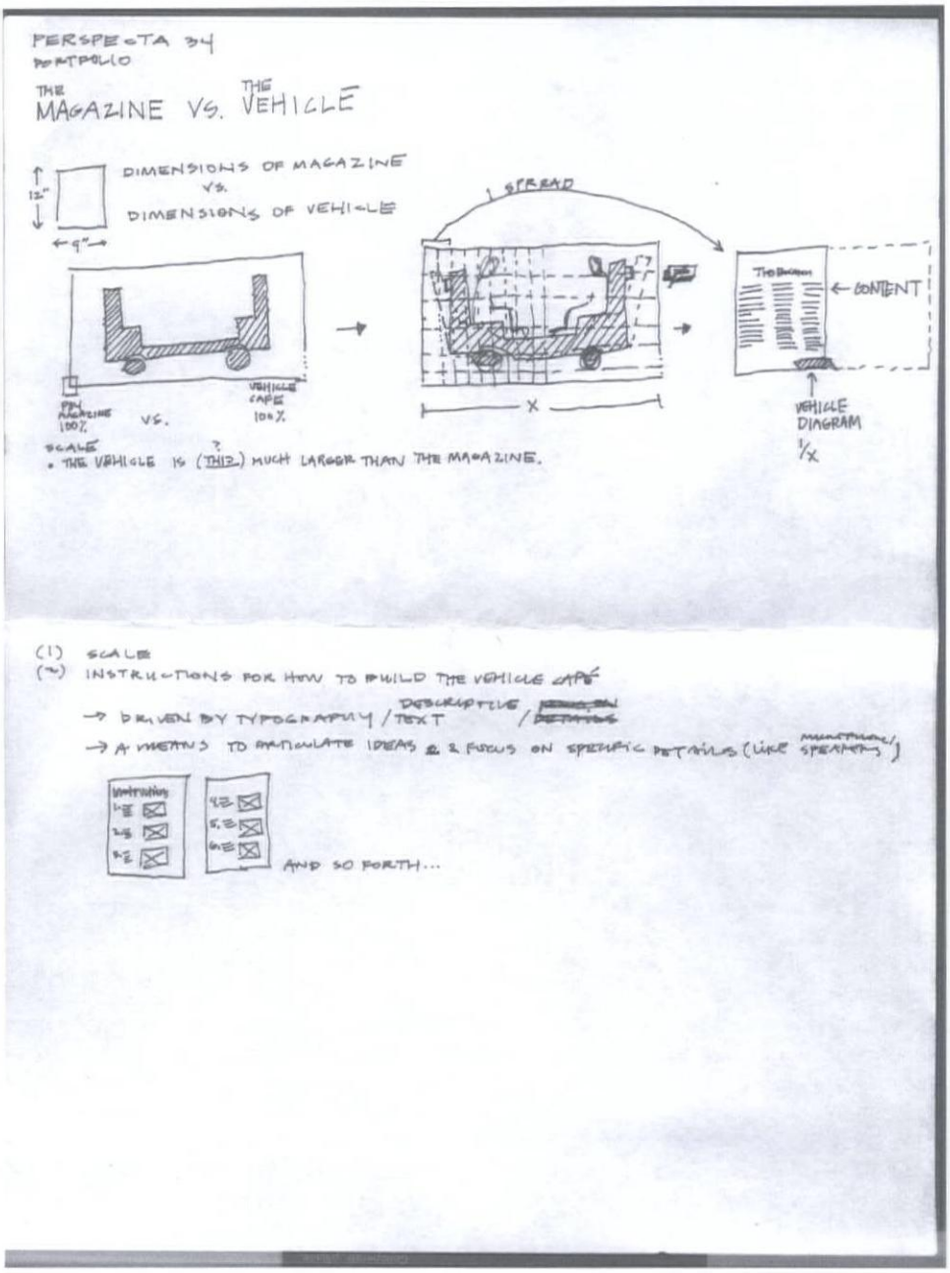
→ *Vehicle-Café 2* (1977–1979). As long as they are expressive, bodily speakers, progress is guaranteed.

hop Conversation

for everybody and everybody was a vital component of the one machine that worked smoothly on the road to a better future, to progress, to catching up with the West. The party was like a big driver or a captain at the head of a huge steering wheel. In fact, there were some posters showing the party steering this giant machine.

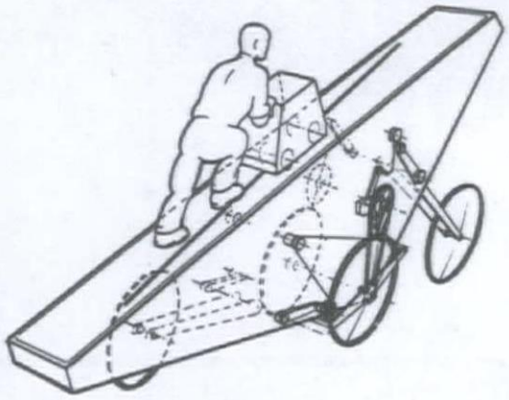
The coffee shop was a monstrous appropriation of the culture that was already well developed in Poland in the 1920s and 1930s. In fact, the European coffee shop was an invention of a Polish person in Vienna who was a *double spy*, a Turkish-Polish bilingual spy who was spying for the king and who contributed to the Polish victory over the Turks in Vienna. After the battle he demanded payment for his services, and of course there was no money, so he asked the king to give him all of the coffee that was left by the Turkish army in the battle. The spy invented the European coffee shop so that Europeans would drink coffee and he would make money.

Of course, coffee is a serious stimulant. It can be seriously intoxicating. Strong coffee can help to create—of course alcohol is much more effective—but it is a medium for creations of something that S.I. Witkiewicz would call "intellectual séances," in which you really don't know anymore what you are saying. The conversation is not even conversation; it is a kind of séance in which certain words are twisted and picked up and degenerate into other words and metaphors, and people laugh because something uncanny is constructed. Sometimes this happens in academia … they call it "seminars," when you start



↑ Deena's sketch.

← Dean & DeLuca coffee shop, University Place, New York City.



connecting things that no one would ever try to connect in any coherent way—but things connect, people laugh.

After three- or four-hour daily sessions in a coffee shop and with the same people, there is the possibility of complete exhaustion; the conversation dries up, and nobody can bring anything new, and it's so intense and the brain becomes empty, and you have a sense that you are empty. This is very good, because then you get so angry that you might then go to your studio or design office or editorial office, and you do something, because it cannot perpetuate; you have to create something new that you can bring later to the coffee shop.

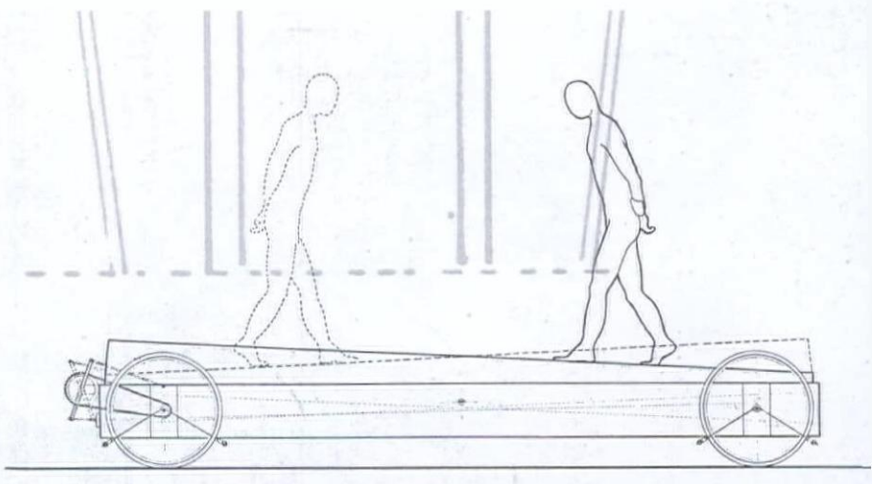
The very fact that the *Vehicle-Café 1* drawing was made with dead seriousness, with ergonomic seriousness, with mechanical seriousness, and that there are proper architectural views, like this top view, the fact that one could imagine building it from these drawings, that in itself means something. There is a relation between the language of this drawing and the language of propaganda, the Newtonian language that was used at the time: about moving ahead, about forces, progression, about steering, wheels, and gears, and switching gears. It is all that language of progress and productivity, efficiency, velocity, and dynamism. There are elements of this in futurist vocabulary, in Constructivist vocabulary, in productivist vocabulary, in Fordist vocabulary; and in the Bauhaus you have references to a well-working machine.

This brings up the problematic of design for me. In the whole discipline the understanding is that once you design it, it will be better. For example, one assumption of modern design is once you find the form—the new and original formal thought for this particular problem—the problem will be resolved. So design is not understood as exploring, as a cognitive process, as an interrogative process articulating the complexity of needs, or even shamefulness of needs, that should not exist but unfortunately do in our "civilized" world. Design is supposed to "resolve" something, is based on a utopia of finding a final solution. This is a modern concept. And people still project this concept onto my designs, even on the *Homeless Vehicle Project* (1988–1989). But in some ways this is good for me, because it is impossible for the vehicle to be a solution. Because if it is not a solution, then what should be done instead? Or what should not be done? These works (like the *Homeless Vehicle Project*) are not only emergency-assistance vehicles; while operating as interrogative machines, they provide immediate emergency assistance to the blindness of the problem in the hope that the operation will contribute to a situation in which vehicles like that will not be necessary.

The *Vehicle-Cafés* are more of a metaphor. They work on a representational level; they are not to be enacted. The *Vehicle-Café 1* could be operated by contemporary intellectuals as it was operated by the intelligentsia in 1970s Poland. It could be an allegory of whatever is still left of our interest in existential philosophy. That is, questioning to what degree we are collaborating in the creation of these kinds of machines for ourselves, to what degree we are forced to be passengers, as imaginary drivers. Another kind of vehicle is being created now as we sit here and discuss these *Vehicle-Cafés*. This is a New York coffee shop, and we continue their conversation.

The original *Vehicle* (1972) is the most important. All of the vehicles that followed are trying to understand that first vehicle. They are more specialized; they try to read why on earth I designed the first one. It is me as a subject. What does it mean, the subject, in a society that is constructed, designed for that subject? Is it for that subject? It is using that subject, and all of the problems that can cross the mind of a person walking back and forth on that vehicle. The vehicles can only go in one predetermined direction, but there is a double perspective for the operator. That aspect is really weird, because when you walk ahead, you move ahead, and when you walk backward, you move ahead, and the whole time you are seeing this kind of up-and-down movement, moving at walking speed.

While I was using the vehicle, some people saw it, but they pretended that nothing out of the ordinary was happening. They were walking by, but in the corner of their eye they most likely registered everything. And in the confinement of their apartments, I am sure, they were talking about it, and in their apartments they were walking back and forth, too.



↑ *Vehicle for the Worker* (1977–1979).

↗ *Homeless Vehicle Project* (1988–1989).

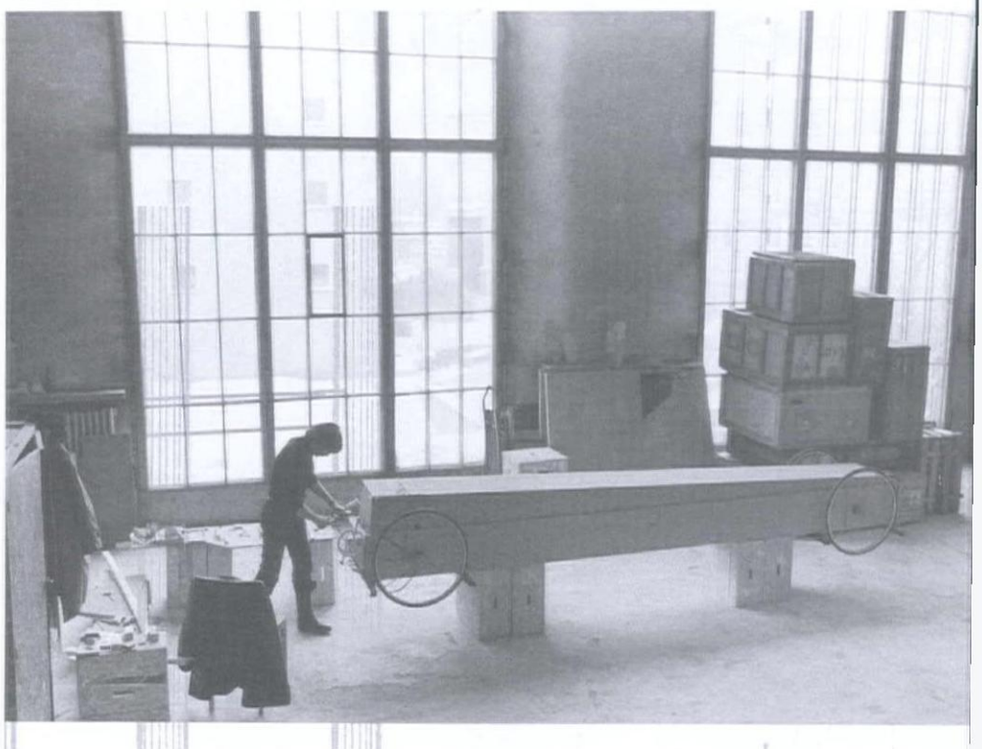
→ Drawings for *Vehicle* (1971–1973). When you walk ahead, you move ahead, and when you walk backward, you move ahead.

Many of my colleagues were disappointed when I designed the first vehicle—that was 1972. At that time artists were still focusing on conceptual art and body art, but the conceptual art was very strong, and all of this was about self-referential systems. All of these educated colleagues demanded that this vehicle go back and forth in a kind of correlated system (a self-referential system), or more back than forth (sort of like Vito Acconci: existential body art). So everyone was disappointed in it. But I insisted that it move ahead. My intuition was telling me that this is the real humor and strength, this progressive mode. Eventually it became accepted, but it took more than ten years for my friends to understand why I designed it. I myself was not as conscious then, but there was something in me very clear …

I haven't thought of making an instruction manual for constructing these vehicles, but I could try to describe what would be the best requirement for an engine and what kind of an effect I would be looking for. For example, with the *Vehicle-Podium* (1977–1979), the one for the speaker, there is a requirement to create an interesting feedback between speech and movement. It becomes some kind of hysterical situation where you want to sustain the movement of the vehicle and this starts affecting your speech. In political speeches the form of the speech becomes the substance. Hitler's speeches, for example, these were truly modern speeches. The speeches tried to resolve the contradiction of modernity (the rational and the irrational); they use intonation and dynamics to create some kind of emotional, bodily charge. This was more important than what he was saying, which was nonsense if you start listening closely. The whole thing was about a speaking machine, triggering the body, collective response, the masses. In the *Vehicle-Podium* the feedback is not between the speaker and the masses but between the speaker and the podium. When you see the behavior of the vehicle starting to respond to the way you speak, you start developing your speech for the vehicle. In that way, you might start to speak for the machine. The speaker wishes that the masses were more like the podium, responding mechanically to the stimulus of the speech and in turn stimulating the speaker. You have to always keep adding that energy, because it has a tendency to slow down all the time.

↑ *Vehicle-Podium* (1977–1979). When you see the behavior of the vehicle starting to respond to the way you speak, you start developing your speech for the vehicle.

↓ Constructing *Vehicle*.

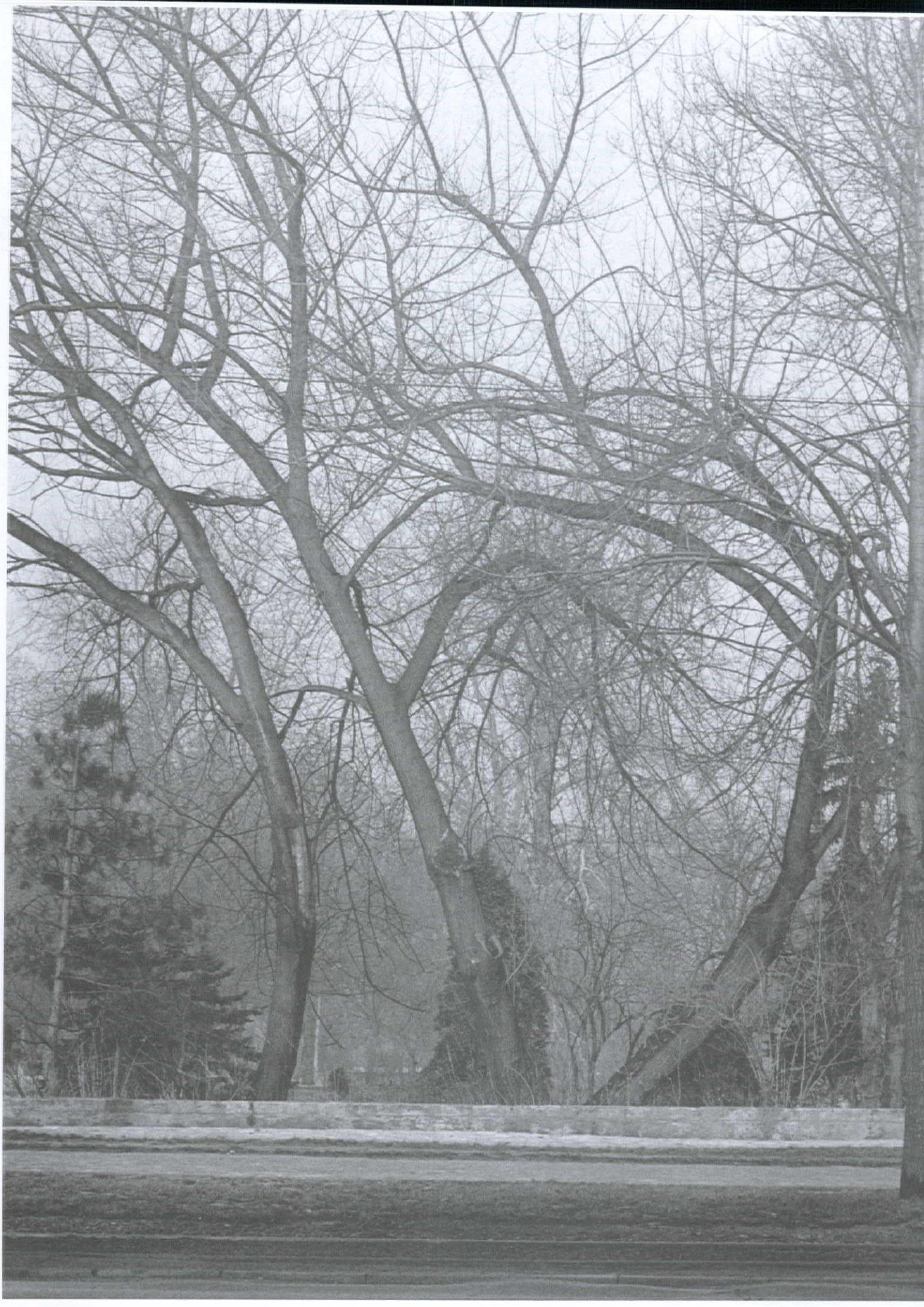


20 VEHICLE KRZYSZTOF WODICZKO 1972

VEHICLE KRZYSZTOF WODICZKO 1972 21

22 VEHICLE KRZYSZTOF WODICZKO 1972

VEHICLE KRZYSZTOF WODICZKO 1972 23



24 VEHICLE KRZYSZTOF WODICZKO 1972

VEHICLE KRZYSZTOF WODICZKO 1972 25

subtraction

Keller Easterling

Methods for demolishing, imploding, or otherwise subtracting building material are not among the essential skills imparted to architects in training. Believing building to be the primary constructive activity, the discipline has not institutionalized special studies of subtraction. In fact, for architects building envelope is almost always the solution to any problem. The demolition plan, one of the first pages in a set of construction documents, provides instructions for the removal of building material, but only building material that presents an obstacle to more building material, the material of a new, superior design. Architectural authorship is measured by object building rather than by the admirable removal of material, and the general consensus within the discipline is that architectural efforts should be visible in photographs.

The positive rather than negative components of space making are not only currency in the architect's career; they constitute an economic indicator, a mass of material weighed and measured in the market as well as the world of banking and finance. The expenditure of money is counterbalanced by the substance of this mass, and the bankability of the mass increases with duration. The arduous task of piling one thing on another in hopes of engaging gravity with stability becomes a more satisfying exertion when the object is considered durable or even permanent.

When accepted as a tool, subtraction can be part of that architectural ethos that promotes essentialist values, an economy of means, or the removal of some excess that does not provide utility or beauty. Or the architect can play the role of sensitive (or brutish) artist who uses subtraction soulfully to "carve" positive shapes within space or excise material to initiate the performance of light. Although immaterial, light, as an ordained tool of the discipline, is often understood to be the drapery or enhancing accompaniment to a positive figure. Still, the use of darkness or lack of light as a means of erasing spatial boundaries, figures, or orientation is more rare. Again, custom requires that the results of even subtractive techniques be visible in photographs.

From Haussmann to Le Corbusier to all those self-styled around a succession of similar heroes, tabula rasa is the mode of subtraction most compatible with architectural desire. Like the demolition plan, tabula rasa is a clearing of architecture so that better or corrected architecture can be piled without obstruction. At mid-century, hundreds of architects removed their special-order Corbusian glasses (for an extra degree of insincerity) and gestured to a presentation drawing where the words "tabula rasa" were written in cursive under a cartoon soleil. This clearing and subtracting of fabric, usually deemed a necessary surgery on the ugly and diseased, was only meaningful if the void was immediately refilled with a refined or updated architecture, with monuments to modernity. The architects who then inherited this rearranged landscape of highways, tall buildings, and parking lots declared the leftover voids diseased sites of ugliness and vacancy and offered their own, corrected architecture to fill them with yet more buildings. Believing themselves to be gentle where their predecessors had been ruthless, these architects spoke, with characteristic *horror vacui*, of stitching up the wounds of the city with a spatial syntax of buildings from another moment in history. The tabula rasa is almost always accompanied with this delusion of superiority, a kind of seizure or conquest rather than a strategic removal. Koolhaas's 1991 project for La Défense in Paris inverted the customary methods for producing tabula rasa by subtracting not the oldest, densest, or most dilapidated but the most recent fabric of the city, in sequence by decade. This iterative technique used subtraction as a space-making tool, yet it also inherently maintained a dialogue with ancestral heroes about tabula rasa as a means of conquest, a means to seize the floor with the next in a succession of spatial aesthetics.[1]

Accumulation or accretion generally signals growth, and subtraction generally signals loss. Yet in most active organizations (e.g., biological, financial) gains and losses, additions and subtractions are considered part of the normal constitution of any network or system exchange. Similarly, in urban organizations every building construction is a

1 Rem Koolhaas, "Urban Operations," *Documents* 3 (1993), 25–57.

← J.L. Hudson Department Store, Detroit, Michigan, 24 October 1998

"After campaigning on a promise to raze 5,000 houses by September, Mr. Kilpatrick [mayor of Detroit] has so far seen only about 1,000 come down. He blames lack of money and a diffuse bureaucracy."[2]

← Aladdin Hotel, Las Vegas, Nevada, 27 April 1998

subtraction or a replacement, an alteration of an existing field of space. Geology and psychiatry, disciplines that previously organized information according to physical artifacts and visual records, gradually developed a vocabulary for both visible and invisible processes that might be described with infinitive expressions rather than artifacts. Relative to these, architecture's fascination with object and morphology over activity might be viewed as somewhat more primitive. Not only is the absence of material difficult to perceive, but the processes and tools of subtraction, its instruments as well as its instrumentality, are not part of an architectural repertoire.

Yet the subtraction of building has arguably been at least as important as the making of building in the last half century. Although it is the favorite weapon in the aesthetic generational wars between architects, the aggressions of the tabula rasa are but one means of subtraction. Buildings and urban formations themselves are often instruments of subtraction, broadcasting fields of blight or altered real-estate values that begin a process of attrition. The same buildings are not only economic indicators but volumetric reflections of volatile markets, part of a rapidly changing economy of elastic or disposable spatial formats. These ecologies have arguably accelerated an animation of building making and unmaking within which an ephemeral desire or slippery corporate fortune has the power to level buildings. Shifting political climates may also delete ownership, value, or physical property. Although any of these means of subtraction may hide within the folds of legalities, they may be no less violent than the deliberate aggressions of warfare or the catastrophes of natural disasters.

Whatever mobile territories are really at stake in the wars between the world's empires, buildings and cities are still spectacular targets, and building deletions, whether as warfare, urban corrective, or staged explosion, have become cultural spectacles that are all executed with similar engineering techniques. Constructing tall buildings, dams, highways, and other large public-works projects involving dynamite and large-scale movements of material has traditionally provided building spectacles in culture, yet currently it is the *deletion* of housing towers, bridges, sports arenas, and convention centers that provides cultural theater. And in the post–Cold War era, not invisible espionage but the explosion of physical targets provides more satisfying effects for a media-savvy style of warfare, one that merges with its Hollywood counterpart.

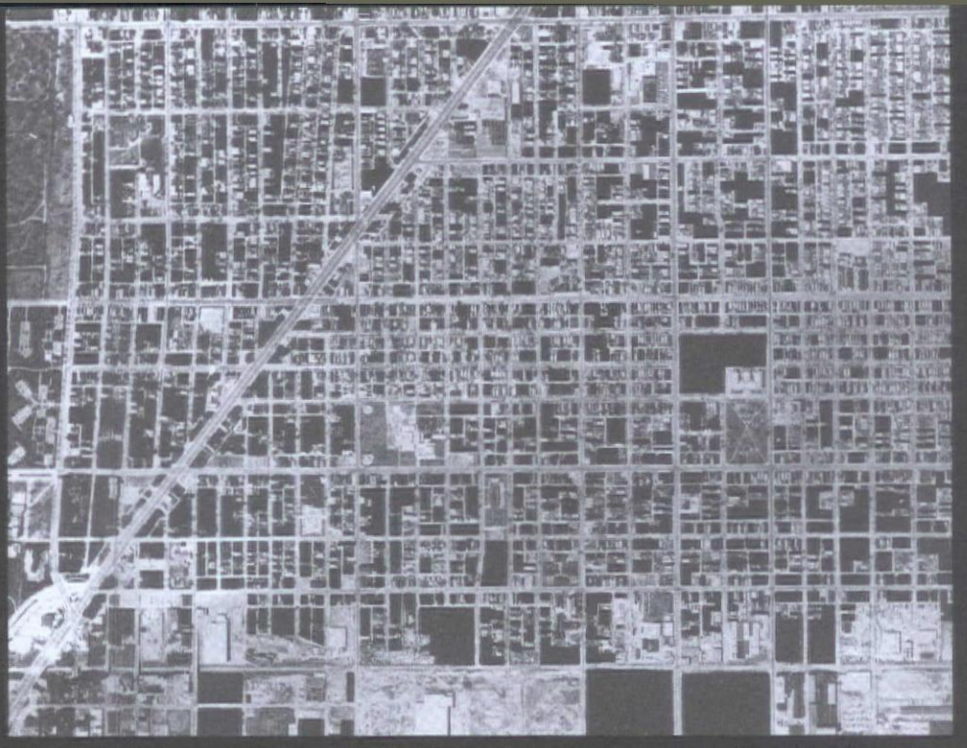
If subtraction is part of a system of exchange, a function of an active organization of construction and destruction, it is also a positive tool of space making. In the spectacular landscape of aggressive deletions and tabula rasa, as well as the working landscapes or *Landschafts* of deletion that cultivate the systemic removal of material, subtraction may be a kind of harvest. However productive, insidious, or even violent these deletions may be, the space of the subtraction itself is always a potent new mixture of ingredients previously separated—a new translation of contradictory information. The space of subtraction is always terra incognita, an unknown site capable of rewiring an existing ecology or introducing a new instrument in culture.

Many of the twentieth century's building projects generated not only an initial clearing or erasure but several additional waves of subtraction in their life span. For instance, housing towers and highways both require an initial subtraction or reformatting of land, removing its existing attributes and calibrations and making a kind of vacancy or new territory in the tradition of the tabula rasa. Since new approaches to housing or transportation are often treated as successive advances in a progressive technology, both forms are part of an economy of obsolescence and replacement. The legal designation of land zoned for a specific program of housing or highways constitutes the reduction of multiple owners to a single owner and the reduction of the multiple programs of an urban field to a single program. Once built, these organizations, perhaps because of their resistance to an existing urban condition, frequently produce a subtractive field of negative real-estate values.

Urban planning as housing and highway machine was practiced in postwar planning programs all over the world, but America's episodes are representative. "Tower in the Park" high-rise housing initially sponsored the subtraction of existing tenement housing, and the 90 percent site coverage found in tenement fabric was typically reduced to just over 10 percent in, for instance, the Bunshaft model for public housing in New York City. Bunshaft's Sedgwick Houses (1950) demonstrated that added floors did not significantly increase construction costs, but decreased costs associated with greater

2. *New York Times*, 7 July 2002, 10.

3. Richard Plunz, *A History of Housing in New York City: Dwelling Type and Social Change in the American Metropolis* (New York: Columbia University Press, 1990), 265–72. Plunz traces a history of high-rise housing in New York City. Some have speculated that the very few points of entry signaled safety not for the inhabitants but for those living outside these neighborhoods, who, given an arrangement with fewer points of entry and connection, could more easily imagine containing a population more subject to poverty.



→ "Erasing Detroit," Dan Hoffman

site coverage. Liberal political rhetoric laundered the arrangement as a new model of efficiency. Although it may have been regarded as efficient to avoid entry duplications in these high-rises, the reduction of redundancy in entry was the least efficient arrangement of communication between the tower's residents, and one that weakened their resilience.[3] Any user, dealer, criminal, or maintenance problem affected the entire tower through the core, the unavoidable space of circulation. The towers were exactly the kinds of structures that an epidemiologist would describe as highly susceptible to contagions: without multiplication and redundancy of entry the environment was unable to form alternative networks of association and was vulnerable to failed maintenance and crime. The towers were in no position to resist an extremely addictive drug like crack, and their weakened chemistry radiated reduced real-estate value in the surrounding fabric, leaving more and more abandoned buildings, arson, and demolitions.

Many of these towers were so crippled that they had to be demolished, inaugurating not only a third wave of subtractions related to housing but also a new wave of spectacular subtraction in culture. The first and most notorious of the high-rise housing implosions was Pruitt-Igoe in St. Louis in 1972. Designed by Minoru Yamasaki and built in 1955, this wildly dysfunctional housing sustained vacancies of 30–40 percent, and was imploded after only seventeen years.[4] Images of this implosion were made famous in the slide shows of countless postmodern architects who used them as a polemical tabula rasa, or a means of clearing the preceding modernist agenda.

Since the demolition of Pruitt-Igoe, hundreds of thousands of high-rise housing units have been razed. From Baltimore to Chicago to Newark to Detroit municipal governments have voted to replace the high-rise warehouses with mixed-income housing, sometimes imploding the buildings before replacement units have even materialized. In 1996 Chicago projected the implosion of 15 percent of its public-housing projects by 2002.[5] Most of the towers destroyed were less than forty years old, or close to the life expectancy of roofing material on a single-family house. Camilo Vergara's successive photography of subtractive housing fields in the South Bronx, Detroit, Newark, and Camden illustrates a relatively rapid time-lapse animation of subtraction. Vergara calls these subtracted sites "green ghettos" because the vacant lots gradually began to fill with vegetation.[6]

Demolishing areas deemed blighted is a long-standing municipal practice used to revalue property or recalibrate parcels to be large enough for, for instance, the imaginations of convention center designers. Not unlike the mid-century clearings that made way for highways, the current subtractions of derelict or dangerous structures often launder space for a concoction of public works, construction contracts, and real-estate deals packaged in a new program conglomerate. In his 1991 project "Erasing Detroit" Dan Hoffman marked areas of recently razed housing in the city, as well as areas adjacent to urban highways, noting that "unbuilding has surpassed building as the city's major architectural activity."[7] Philadelphia is currently clearing fourteen thousand row houses and cleaning up vacant lots, preparing a new real-estate product for the development market.[8] In large cities like Detroit and Philadelphia, subtraction constitutes the bulk of public building projects.[9]

The limited-access highway, with its continuous rights-of-way, produced a network of subtraction as well as a shifting field of real-estate values. Thirty-foot-wide rights-of-way occupy about forty acres per mile of roadway, forming a most unusual subtraction.[10] As a mathematical field whose dimensions are a function of traffic volumes at a particular speed, it is a true vacancy, an abyss into which people might furtively drop something as small as a tissue or abandon something as large as a car. Mid-century architects and politicians declared the spaces "ugly" and prepared guidelines to immediately fill them in with shrubs and bluebonnets to relieve the persistent ailment of

4. Peter Hall, *Cities of Tomorrow* (Cambridge, Mass.: Basil Blackwell, 1988), 235.

5. *Chicago Sun-Times*, 31 May 1996; http://www.implosionworld.com/; http://www.library.njit.edu/archlib/exhibits/highrise/; http://www.controlled-demolition.com/wrecking.html; Helene Liss, *Demolition: The Art of Demolishing, Dismantling, Imploding, Toppling, and Razing* (New York: Black Dog, 2000); *Baltimore Sun*, 7 Feb. 2001; *New York Times*, 24 Dec. 2000; *Philadelphia Enquirer*, 18 Oct. 1999; *Baltimore Sun*, 4 Jul. 1999; *Chicago Sun-Times*, 11 Apr. 1999 and 13 Dec. 1998; *Star Tribune*, 22 Sep. 1997; *Baltimore Sun*, 28 Jul. 1996, 15 Feb. 2001, and 9 Jul. 2000; *Seattle Times*, 29 May 1999; *Chicago Sun-Times*, 12 December 1998; *St. Louis Post-Dispatch*, 10 Feb. 1999; *Baltimore Sun*, 27 Oct. 1998; *Star Tribune*, 1 Dec. 1996; *Chicago Sun-Times*, 31 May 1996; *Baltimore Sun*, 28 Jul. 1996, and 24 May 1995; *New York Times*, 28 Nov. 1997.

6. Camilo José Vergara, *The New American Ghetto* (New Brunswick, N.J.: Rutgers University Press, 1997).

7. Dan Hoffman, "Erasing Detroit," in Dan Hoffman, ed., *Architecture Studio: Cranbrook Academy of Art*, 1986–1993 (New York: Rizzoli, 1994), 28.

8. http://www.pbs.org/newshour/bb/entertainment/july-dec02/hwl_10-2.html; and http://www.phila.gov/mayor/jfs/mayorsnti/news/releases/releases_9.html.

9. Occasionally the gamble with subtraction renders miraculously altered property value. "Philadelphia has issued $160 million in bonds to demolish 10,000 structures in five years in hope of assembling larger, developable parcels. Baltimore is trying to obtain titles to 5,000 properties, and plans to give or sell the lots to residents to use as yards or gardens. In West Palm Beach, Florida, 50 abandoned buildings were leveled and commercial and residential development called City Place constructed, raising property values to $85 per square foot from $7." *New York Times*, 7 July 2002, 10.

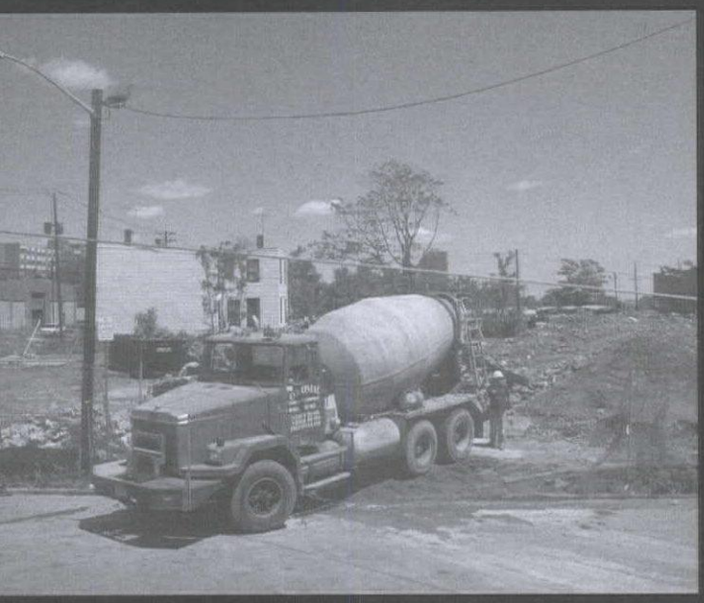
10. Peter Wolf, *Land in America: Its Value, Use, and Control* (New York: Pantheon Books, 1981), 224–34.

NEW STREET AND NEWARK STREET, CENTRAL WARD, NEWARK, NEW JERSEY
January 1980–January 2003
Camilo José Vergara

In 1980 a string of two-family row houses stood on New and Newark Streets in Newark, New Jersey. The night after a demolition crew removed the surrounding residences, the remaining houses were scavenged for scrap metal and pipe. Faced with high-cost repair on low-value property, the landlord removed everything of value, leaving the residents living rent-free without heat or hot water in disintegrating buildings. Attracted by the minimal cost, the New Jersey Institute of Technology bought the block and installed a parking lot.

APR 85

APR 86



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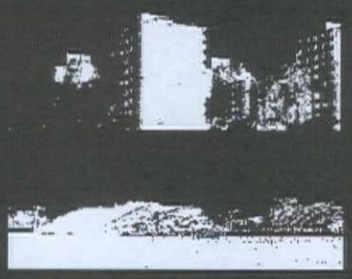
"The pirates always win in Las Vegas."
—STEVE WYNN[11]



"visual monotony."

Beyond the 30 feet, shifting real-estate values formed an even more extensive field of influence. From the moment the routes were designated, urban highways generated declining real-estate values—a decline instrumental in reducing the purchase price. For exurban areas, land values increased 200 to 500 percent within a half mile of the roadway and continue to increase within about a mile of the roadway. Although thinly spread, the webbed network of right-of-way vacancy is among the largest public landholdings in the United States, contacting and affecting the value of the most diverse properties and ecosystems in the country.[12]

Though perhaps the result of corrupt political ambitions or the deployment of selected legalities, housing and highway vacancies are also positive, if mysterious, territories that produce not only new building sites or green open space as a default. High-rise demolitions constitute a great building project in and of themselves, producing not merely sites for the next generation of reformed and corrective housing stock but also a sobering new landscape within the city. Like the housing vacancies, the web of highways is an unknown territory that could be instrumental in reconditioning any site it touches, acting as differential or format translator between the highways and other linear networks, from rivers to railroad corridors.

Building envelope is closely tied to economic and logistical formulas for optimizing the consumption of goods or entertainment and can be as volatile as the market, as slippery as municipal tax structures, as subject to change as the fortunes of large corporations, or as ephemeral as the desires surrounding fashion and entertainment. A retailer like Wal-Mart might abandon its 250,000-square-foot footprints because customers were forced to walk a half mile for a loaf of bread and a carton of milk. The company would then quickly develop both an optimal 200,000-square-foot footprint and a smaller 40,000-square-foot footprint to absorb any stray desires for consumption.[13] For structures like resorts, hospitals, or stadia housed in a figural space or multistory building, changing technical or programmatic needs generate rapid cycles of obsolescence. Yet, remarkably, all that is needed to topple a building, whether it offers constrained or generous dimensions, is a new wrinkle in consumption logistics or an ephemeral desire in the styling of entertainment.

Concurrent with a more volatile ecology of buildings is the emergence of a new technique for deleting them that relies on their relative youth and strength. This new technique of implosion, which can only be performed on structures with at least five stories, works by removing lower supports, leaving a top-heavy structure to collapse by gravitational force. Perhaps not surprisingly, this method of subtraction was developed by one of the engineers who helped demolish Pruitt-Igoe and began imploding buildings that very year as the founder of Controlled Demolition Incorporated, now a global company with offices and affiliates in major cities around the world.[14] In addition to deleting housing, old factories, department stores, and obsolete equipment of the Cold War, CDI and other demolition experts remove spatial products that have rapidly lost their currency. As the mirror image, or negative engineering, of recent structural achievements, implosion indexes a specific economy of obsolescence, because only those buildings with height or particularly coherent structures respond well to its technique of self-destruction. Often the largest and most expensive buildings, such as high-rises, sports stadia, convention centers, and resorts, are deleted by implosion, usually in less than thirty seconds.[15]

CDI describes its implosions as "awesome public relations opportunities that would otherwise cost clients hundreds of thousands of dollars" and that will "create instant visibility for their new development projects."[16] CDI has done effects for films like *Lethal Weapon 3*, *Demolition Man*, and *Enemy of the State*, yet its most visible publicity has been in conjunction with the city of Las Vegas and developers like Steve Wynn. The eighteenth-century Caribbean pirate village, part of the themed Treasure Island resort, ordinarily sinks a British frigate as the finale to its hourly staged gun battles. In 1993 CDI staged an implosion in which the cannon fire from pirate cast members appeared to bring down the whole of the Dunes Hotel across the street. In 1996 Las Vegas celebrated the New Year by imploding the Hacienda hotel and casino for a huge crowd and a live satellite broadcast.[17]

Typical of resort aggregations around the world, those in Las Vegas must be able to schedule a program cocktail that absorbs all potential consumption. In Las Vegas, CDI imploded the Sands, Landmark, Aladdin, El Rancho, and Desert Inn, and it has also

11. http://www.lvstriphistory.com/treasure.htm.

12. Transportation rights-of-way, produced by traffic abstractions and shifting legal jurisdictions, can be further manipulated by the very legal tools that created them. The over 2 million acres of networked subtraction that constitute the highway system are nothing like the size of the 25 million acres controlled by the National Park Service and are perhaps more comparable to the 1 million acres of the Tennessee Valley Authority. Wolf, *Land in America*, 448.

13. www.dmca.yale.edu/wildcards.

14. Liss, *Demolition;* and *Los Angeles Times*, 7 Dec. 2000. Implosion brought down the six-hundred-room Traymore Hotel in Atlantic City, New Jersey, in 1972, the same year that Pruitt-Igoe fell.

15. http://www.controlled-demolition.co.uk/index1.html. CDI demolished the largest building to date: J.L. Hudson Department Store was 439 feet tall, 2.2 million square feet. It also demolished the tallest freestanding concrete structure: the Mendes Caldeira Building was 361 feet tall. The company also demolished the longest suspension bridge, in 1980: the Parkersburg-Belpre Bridge in West Virginia was 2,825 feet long.

16. www.cdi-uk.com/implosion.htm.

17 http://www.controlled-demolition.com.

Disneyland's Grand Hotel was imploded in April 1998. One of the spectators, wishing to expose her son to the "E-Ticket" experience, said, "I don't want him always to see everything on the screen at home. It's not the same. I want him to have real experiences. I would really have liked to get him close enough to feel the air currents, to have some dust settle on his head."[21]

imploded resorts from Guam to the Caribbean to Dubai.[18] Most of the imploded hotels are in their fifties, slightly older than the average age of the imploded housing towers. In Las Vegas the demolished hotels are replaced with mega-resorts, typically with 100,000-square-foot casinos and anywhere from fifteen hundred to four thousand rooms. These gigantic Jerde or Disney-style mega-resorts are among the most rapidly changing spatial products. Like blockbuster summer movies, they must not only merge resorts with theme parks but also generate enormous enclosures that simulate a world or an environment, a city or a microclimate.[19] In Koolhaas's end-of-the-century redrawing of Venturi's Las Vegas figure/ ground, the vast expanses of parking area on the strip have now been filled with a new formula for spreading building enclosures and conglomerate programs.[20]

The expense, monumental size, and structural heroics of sports arenas make them especially satisfying subjects of deletion. They represent temporary stabilizations of the fortunes and allegiances of ball clubs, the ephemeral chemistry of a new municipal tax, rent from a sports organization, and revenue from the operation of the arena itself. Upon completion, they are almost immediately at risk of obsolescence, because their large figural space cannot simply be inflated—it must be broken and recast to introduce new capacity or program. However massive the construction, and although structurally built to stand for hundreds of years, some stadia are torn down in just over twenty years.[22] When it was built in 1976, Seattle's Kingdome exhibited especially ingenious feats of engineering and was made to last for hundreds of years.[23] Its implosion in 2000, like most of the others, was a live urban spectacle as well as a media event. In Microsoft's 3-D-enhanced cyber-coverage of the implosion, chunks of concrete and dust appeared to fly toward the viewer, who was able to repeatedly reactivate the implosion with a mouse click on the dome.[24]

Despite its perversity and expense, obsolescence in large public-works projects produces a harvest of jobs, revenue, and campaigning power that are boilerplate ingredients in municipal politics. Convention centers and malls join the list of demolition subjects, demolished at an even younger age than housing towers or stadia.[25] A twenty-year-old mall in Pasa-dena fell to the ground while broadcasting *Also Sprach Zarathustra* and releasing a flock of doves.[26]

An arena imploded today might have cost $500 million when it was built, with $200 million contributed by the sports organizations and $30 million per year recouped by the city in tax revenues from the operation of the arena. In some cases extra values accrue from perceived revitalization of older downtown areas. The implosion of these structures is also a multimillion-dollar job, and most of the stadium projects today will be rebuilt for approximately $1.5 billion. Some cities still owe money on the buildings they implode.[27] Yet politicians will invariably attach themselves to a stadium or convention center boondoggle, and a city will invariably court sports teams who threaten to shift their loyalties to another city with a better stadium offer. The members of the architecture profession who speak about permanence and *firmitas* in annual meetings of the AIA or RIBA are also overtly harvesting work in this field of subtraction. All over the country new sporting facilities are going up, built by firms like HOK, NBBJ, HNTB, Ellerbee Beckett, and HKS—names styled in the contemporary patois of the acronym. By specializing, these professionals bring expertise to the table and ensure that the game will be played as it was the last time.[28] Yet it is the improbability of this gamble with subtraction, its comedic stakes, and its leveraging power that makes it a potentially penetrable tool of urbanism.

The implosion of the Desert Inn in October 2001 was a bit more somber than some of the previous Vegas events, in part because of

18. Ibid. CDI has demolished several resorts in the Bahamas, including the Pirates Cove Holiday Inn, the Fort Montague Beach Hotel, the Emeralds Beach Hotel, and the Atlantic Beach Resort. The Barbados Hilton, the Royal Palm Resort in Guam, and the Beirut Beach Hotel are among the company's other implosions. CDI also imploded the Chicago Beach Hotel in Dubai, a 1,000-foot-tall futuristic structure next to yet another mirror-tiled high-rise building. www.cdi-uk.com/implosion.htm; and www.controlled-demolition.com.

19. The Bellagio, a mega-resort costing $1.6 billion, replaced the Dunes. A convention center costing $2 billion replaced the Landmark Hotel, which was imploded in 1995. The $2 billion Venetian resort replaced the Sands, razed in 1996. The Mandalay Bay mega-resort replaced the Hacienda. Two hotel casinos with a shipping complex called Desert Passages replaced the Aladdin, imploded in 1998. In October 2000, El Rancho was imploded (not by CDI) to make way for condominiums. In October 2001, the Desert Inn was imploded to make way for Le Reve, a 2,455-room hotel to be completed in 2004 at a cost of $1.6 billion. John Villani, "On a Roll: In Las Vegas, the Casino-Resort Concept is Reaching New Heights," *Urban Land* 59, 3 (2000), 42–45, 91; http://www.lvstriphistory.com/treasure.htm.

20. Rem Koolhaas et al., *Mutations* (Barcelona: ACTAR, 2001).

21. *Los Angeles Times*, 23 March 1998.

22. Houston's Astrodome, Denver's McNichols sports arena, Tampa's Houlihan Stadium, Toronto's Exhibition Stadium, and Pittsburgh's Three Rivers Stadium are among those abandoned or deleted. Houston's Astrodome, opened in 1965, is being abandoned. Denver's McNichols sports arena was torn down in 2000, *Los Angeles Times*, 26 March 2000. The thirty-two-year-old Houlihan Stadium in Tampa was torn down in 1999. A raffle winner pushed the button to detonate, *Tampa Tribune*, 12 April 1999. Exhibition Stadium in Toronto was also demolished in 1999, *Toronto Sun*, 19 Feb. 1999. The Three Rivers Stadium, home of the Steelers and the Pirates, was thirty years old and cost $36 million to build. It was demolished in February 2001 after a new $284 million stadium for the Steelers was built just 80 feet from it, *Pittsburgh Post-Gazette*, 16 Feb. 2001; *New York Times*, 12 Feb. 2001; *New York Times*, 28 Jan. 2001.

23. The "dome" was composed of twenty double-ribbed arches pressing against each other, all supported on a grid of columns. *Baltimore Sun*, 20 March 2000.

24. *Los Angeles Times*, 26 March 2000.

25. Pittsburgh has imploded many things, including its 131,000-square-foot twenty-year-old convention center, which will be replaced by a 1.6 million-square-foot facility costing $324 million. The design was incompatible with the new convention center designed by Rafael Vinoly. *Pittsburgh Post-Gazette*, 12 June 2001 and 2 July 2001. The twenty-five-year-old Omni Coliseum was demolished in Atlanta in 1997. *Atlanta Constitution*, 27 July 1997.

26. *Los Angeles Times*, 19 May 2000.

27. *Los Angeles Times*, 26 March 2000.

28. "Downtowns Get a Sporting Chance," *Urban Land* 58, 5 (1999). Some architects, among them Peter Eisenman, have teamed up with these firms on projects for sports arenas.

"Little specks of the Desert Inn are blowing everywhere... Even though the tower is gone, bits of it will be left all along the Strip."

—ONLOOKER PRESENT AT THE IMPLOSION OF THE DESERT INN.[29]

The Omni didn't linger. Its death was quick, loud, and dusty.[30]

For the Loizeaux brothers, demolition is not their only job; in their spare time, the brothers play terrorists for the military, in the military's efforts to design terrorist- and bomb-proof buildings.[31]

the startling similarity between these staged implosions and the implosion of the World Trade Center.[32] Both produced the same cloud of fine dust and the same scenes of instantaneous destruction. The implosion technique, unlike demolition, also seemed to inspire, in both cases, sentiments associated with internal destruction, suicide, or death by natural causes.[33] Moreover, even before September 11, CDI often emphasized the patriotic content of its work, merging with the war heroes, policemen, and emergency workers who attend to these crises. It imploded what remained of Oklahoma City's Alfred P. Murrah Federal Building, a true domestic suicide, and continues to implode Cold War installations like Scud missile launchers and Russian radio towers in eastern Europe.[34]

As televised, most Cold War battles did not provide the same satisfying sense of destruction as all those since the Persian Gulf War. With the advent of smart bombs, bombs that theoretically cause damage only to buildings without harming civilians, America rediscovered the power of buildings as spectacular targets. There had been plenty of destruction in Afghanistan, for instance, during the Cold War, but none of it fought in the new old-fashioned way, with military brass standing in front of videotape at a press conference. All of America's secondhand destruction of Kabul went unattributed, and although the United States had previously contributed to the destruction of so much of that city, when forces arrived there to retaliate for September 11, there was nothing much left to destroy. The bewildered military dispensed with its building targets inside of two weeks, unable to outdo the televised destruction of the WTC by its now media-savvy protégés in the Al Qaeda network.

In Kabul twenty years of gradual attrition has erased layer after layer of physical and cultural strata. Afghanistan's history of invasions has generated a complex tribal composition that continually thwarts efforts to create cohesive national sovereignty. Kabul was a pawn in Europe's Great Game to control the subcontinent by taking turns capturing each other's territory and erasing one another's evidence of sovereignty. During the Cold War era, the CIA helped resurrect the ancient notion of jihad to incite opposition groups like the Mujaheddin to repel Soviet invasions, and Kabul attracted a good deal of this aggression. Sixteen years of war had already erased Kabul's cultural luxuries as a modern Western city of diplomats and universities. The Taliban's standoff with the Northern Alliance lasted long enough to disintegrate even more of its physical fabric. Subtraction was also, for the Taliban, a technique to induce cultural amnesia, as evidenced by the deletion of the Bamiyan Buddhas. At the end of fighting in 2002, Kabul was almost completely in ruins, as if it had been the victim of a natural disaster, or as if succumbing to the country's constitutional tendency toward debilitating conflict. It seemed to be returning entropically to the mountains and dust storms of the surrounding countryside. Like the peculiar game of monopoly that funds subtractions of stadia and coliseums only to rebuild them for more money, only a fraction of the money spent to destroy Kabul will be used to rebuild it.

Cities are not only targets and remnants of the subtractive fields of warfare but also active adversaries in its organization, with the power to resist, elude, aggress, or even self-destruct. The city is always a challenging opponent, and to the degree that its resilience always signals tolerance, diversity, contradictory information, and intelligence, it must be crushed by a totalitarian regime or a more conservative faction accustomed to being in power. Bucharest, Beirut, Sarajevo, Belgrade, Dili, Kabul, and New York are all cities whose urbanity made them adversaries as well as targets. Unlike the other cities, New York was not under siege for days, months, or years, and the almost instantaneous deletion of the World Trade Center returned the story to the United States. Like the Pruitt-Igoe housing towers, whose destruction coincided with the inauguration of the World Trade Center, the organization of the twin towers was so singular, so impossible to partition, so reliant on a central serial core that any negative influence potentially initiated an epidemic or an avalanche. With no means to dissipate disturbance, the reductive organization only escalated the power of these negative influences. Since after impact all visible traces of an alien force immediately disintegrated, the towers' self-destruction seemed almost like a suicide, an internal collapse of a friable structure rather than a detonation from an outside force. Domestically, the collapse of the World Trade Center merged the pyrotechnics of warfare from the Defense Department, Hollywood, and the increasingly common urban spectacles of implosion.

If bombs and dynamite provide the hardware of subtraction, the software of these deletions is often hiding in the folds of legalities and political dogmas. The failures and false logics of social programs are sanctioned forms of aggression even when under the guise of liberal reform, as in the case of American high-rise housing. A battery of

29. http://www.lvrj.com/lvrj_home/news/packages/di/implosion.html.

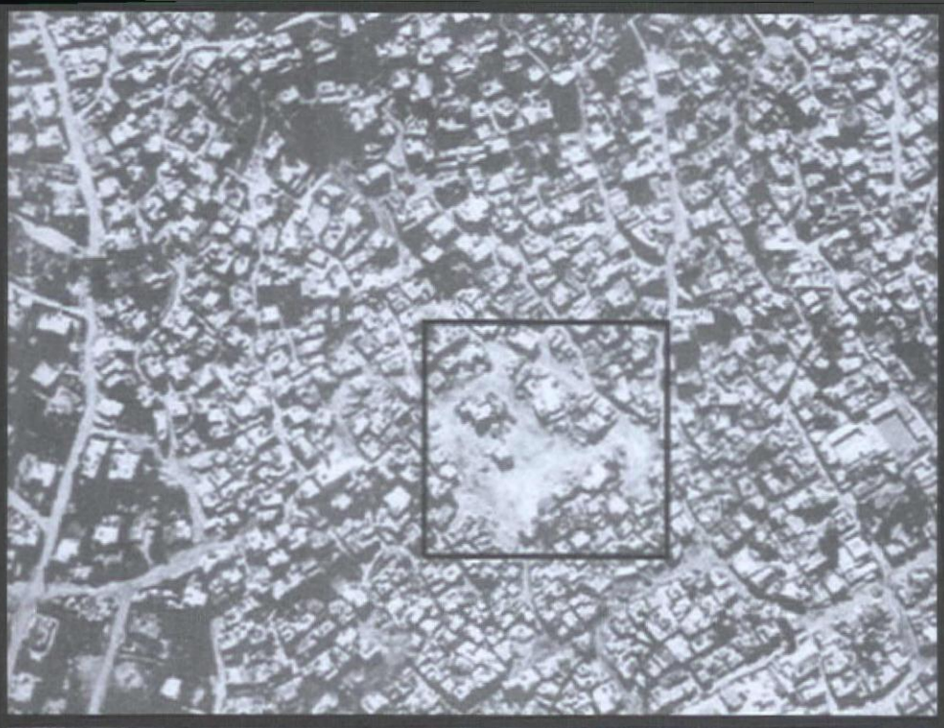
30. *Atlanta Journal and Constitution*, 27 July 1997. The Omni was a convention center in Atlanta.

31. http://www.physics.nwu.edu/classes/2001Spring/135-1/Projects/7/dpgsite3.htm.

32. Villani, "On a Roll"; http://www.lvstriphistory.com/treasure.htm.

33. *Atlanta Journal and Constitution*, 27 July 1997.

34. CDI imploded an SS-25 foundation pad in Belarus for the Nuclear Defense Agency, destroyed a Scud missile system in Warsaw, another in Bucharest, and a rocket facility in Cape Town, South Africa. For the Department of Defense and the Army Corps of Engineers, the company imploded a Russian radar facility in Skrunda, Latvia, for which it brought down a nineteen-story, 300-foot-tall receiver building, and an eight-story 800,000-square-foot transmitter building. http://www.timberline.com/products/stories/cdi.htm; http://www.controlled-demolition.com/wrecking.html; and correspondence with Stacy Loizeau on 2 Nov. 2001.



←↙ Jenin Battle Site, West Bank, April 2002

legal restrictions constructed to disenfranchise a population through its housing or its land is a long-standing technique of piracy conducted by calm magistrates all over the world who wish to erase the identity of a competitor that threatens their purity or sovereignty. The properties of Jews and Muslims have been seized or Aryanized in European purges throughout history.[35] Similarly, for the last three decades, Israel has implemented a housing policy that restricts Palestinian building in Gaza, East Jerusalem, and the West Bank while also demolishing homes deemed to be illegal. Palestinians cannot build without a permit, but permits are expensive, sometimes as much as $2,500, and only a limited number are issued. One may also be denied a permit if unable to establish legal ownership, yet in 1968 Israel discontinued land registrations, thus reducing the possibility that a Palestinian could legally own property. Given this difficulty, many Palestinians build illegal structures that are then targeted for demolition. Since the war between Israel and the Palestinians is also fought with population statistics designed to support claims of sovereignty, houses near sites of possible expansion for Israeli settlements are likely targets of demolition. Laws also sanction the demolition of dwellings associated with any firearms or bombs that have been involved in the Palestinian-Israeli conflict.[36] Since suicide bombs retaliate against these demolitions, the selective, piecemeal subtraction is a self-perpetuating ongoing exchange of destruction. Similarly, the 1992 demolition of the Babri mosque in Ayodhya, India, by Hindu protesters, was the deletion of a rival religion and a usurping of the site for a new temple that has become an important plank in the BJP's political platform. This violent form of site preparation and assumption has already incited retaliations.[37]

Some cataclysmic events of warfare and natural disaster delete so abruptly that sorrow, relief, and restoration rush in to fill the void, whereas other disasters, despite their destruction, are simply deleted from cultural memory. The 1995 Kobe earthquake subtracted a space 20 kilometers long and 2 kilometers wide, leaving fifty-five hundred people dead and sixty-four hundred structures destroyed. The rapidity and innovation of the rebuilding effort surpassed all expectations, suggesting that the work may be inspired not only by the passion of loss but also by the sense that obstacles to long-awaited plans had been dislodged or erased.[41] Catastrophes like those in Cher-

35. *New York Times*, 7 March 2002. All over Europe during World War II, Jewish property was redesignated as a technique of profiteering and as just one means of erasing a profile of legal documentation for an individual. In Nazi Vienna, for instance, housing stock, offices, even tourist attractions like the Ferris wheel at the Prater were seized from the Jews and "Aryanized."

36. http://www.btselem.org/English/House_Demolitions/Statistics.asp; http://www.salam.org/palestine/housing.html. Various human rights groups attempt to collect data about the numbers of demolitions of illegal homes and other structures, and although the numbers may vary, one tally for East Jerusalem from 1987 to 2002 is 662 structures. The tally for the West Bank and Gaza is 1,939 structures. Regulation 119, dating back to 1945, also allows for the demolition of any building from which "any firearm has been illegally discharged, or any bomb, grenade or explosive or incendiary article illegally thrown." The human rights group B'Tselem estimates that between 1987 and 1997, 449 houses were demolished, 62 partially demolished, 296 completely sealed, and 118 partially sealed, as punishments for aggression. According to one estimate, ten thousand people were rendered homeless by these demolitions.

37. The demolition was led by Hindu activists in the nationalist Bharatiya Janata Party and the World Hindu Council party; CNN, 28 Feb. 2002.

"When the U.N. meets to usher in yet another century, will the Maldives and other low-lying island nations be represented here?"

—MAUMOON ABDUL GAYMOOM, PRESIDENT OF THE MALDIVES, WITH THIRTY SECONDS LEFT TO SPEAK AT THE UNITED NATIONS CONFERENCE ON THE MILLENNIUM, POLITELY REMINDED ALL OF THE OTHER COUNTRIES ABOUT THE REALITY FACING HIS SINKING ISLANDS[38]

"The field of ruin is a mile in width, bounded by the lake on one side and mainly by a branch of the river on the other, and four miles in length, thus being as large as half of New York City from the Battery to the Central Park, or as the whole of the peninsula of Boston. The houses burned set ten feet apart would form a row over a hundred miles in length. I judge that more than a third of the roof-space and fully half of floor space of the city, the population of which was 330,000, was destroyed."

—FREDERICK LAW OLMSTED ON THE AFTERMATH OF THE CHICAGO FIRE[39]

nobyl or Bhopal, however, are treated as if they were natural disasters rather than a kind of insidious or accidental warfare against a population deemed expendable. These environmental disasters may be especially cruel, since they do not register their effects on a city or a landmark and require no long-standing effort to rebuild.

In response to subtraction, architects are typically prepared with a disaster plan, one that, in the tradition of the tabula rasa, suggests the construction of their own magnificent idea, usually a restorative or corrective plan. For some the void is only a building site. Other self-appointed architect-pirates of subtraction, like those in the Earth Liberation Front, counter subtraction with subtraction. As habitats and species disappear and islands sink into the ocean, ELF battles in one theater of that environmental war, inflicting hundreds of thousands of dollars worth of corrective damage on suburbia by burning or defacing homes.[42] Other architects are able to see, even in disaster, the production of a new and unknown site. Frederick Law Olmsted's descriptions of the aftermath of the 1871 Chicago fire are remarkable in that they do not begin with the desire to restore or usher in a new system of urban parks. Rather, they simply measure the space of the subtraction, evaluating its constituent parts and cross-referencing the section it cut through social classes and differentiated enterprises in the city. While a cry to rebuild would only restore existing information, Olmsted permitted the new information introduced by loss.[43]

The desire to remain intact, to reduce or preserve existing information and eliminate evidence that contradicts the prevailing power or threatens its security, may be the greatest violence. Subtractions and reactions to subtraction both potentially reflect this motive, however gentle or preserving the tone of the rhetoric. There are so many species of subtraction, each with different causes or motives and each resulting in very different harvests. Some subtractions erase information, some release a flood of information and association. Some gradually recondition a space, whereas some deliver debilitating attrition. Some provide resistance or relief, whereas others crush resistance, insurgency, or diversity. Subtraction may be one of the primary activities of building and making space, and its field of deletion is not an example of architecture in failure, architecture without permanence and therefore without worth. Just as one would cultivate crops or use one microorganism to counteract another, subtraction may be a productive technique for changing not only the shape but the constitution of space. Architects might view the phenomenon of subtraction as an operative of practice rather than as a by-product of destructive forces. It is both a tool and a new territory. Whether part of a violent or gentle ecology, subtraction can be growth.

"Mr. Gorbachev, tear down this wall."

—PRESIDENT RONALD REAGAN, 12 JUNE 1987, IN BERLIN

"Build it and we will burn it."

—EARTH LIBERATION FRONT[40]

38. *New York Times*, 7 Sep. 2000.

39. Frederick Law Olmsted, "Chicago in Distress," *Nation*, 8 Nov. 1871, 302–5.

40. http://www.emagazine.com/may-june_2001/0501curr_elf.html.

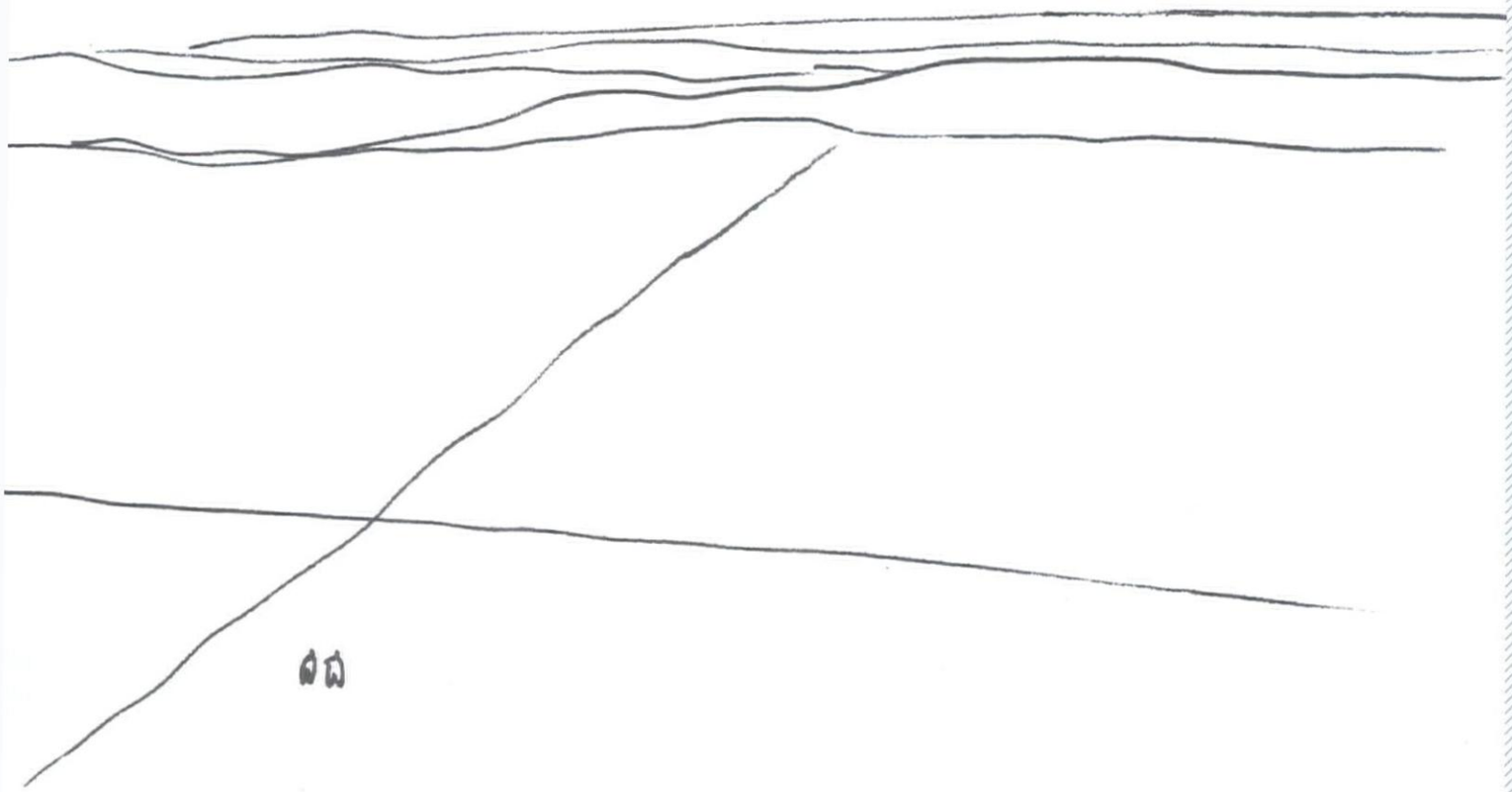
41. George Horwich, "Economic Lessons of the Kobe Earthquake," *Economic Development and Cultural Change* 48, 3 (2000), 521–42.

42. http://www.emagazine.com/may-june_2001/0501curr_elf.html.

43. Olmstead, "Chicago in Distress."

"Founding a city in the wilderness is a deliberate act of conquest, a gesture after the manner of the pioneering colonial tradition, and the competitor's conception of such a city would be most important. This is particularly so because the city will not be a result of regional planning but the cause of it: its foundation will lead, later, to the planned development of the whole region."

—Lucio Costa, presenting his winning design for Brasília in the "Report of a Pilot Plan for Brasília"



CLEARING BRASÍLIA

S 15°47', W 47°55'
1,015 km from São Paulo, 1,148 km from Rio de Janeiro, 2,120 km from Belém
Average temperature: 20.5°C (69° F)
Inaugurated: 29 April 1960
Planner: Lucio Costa
Architect: Oscar Niemeyer

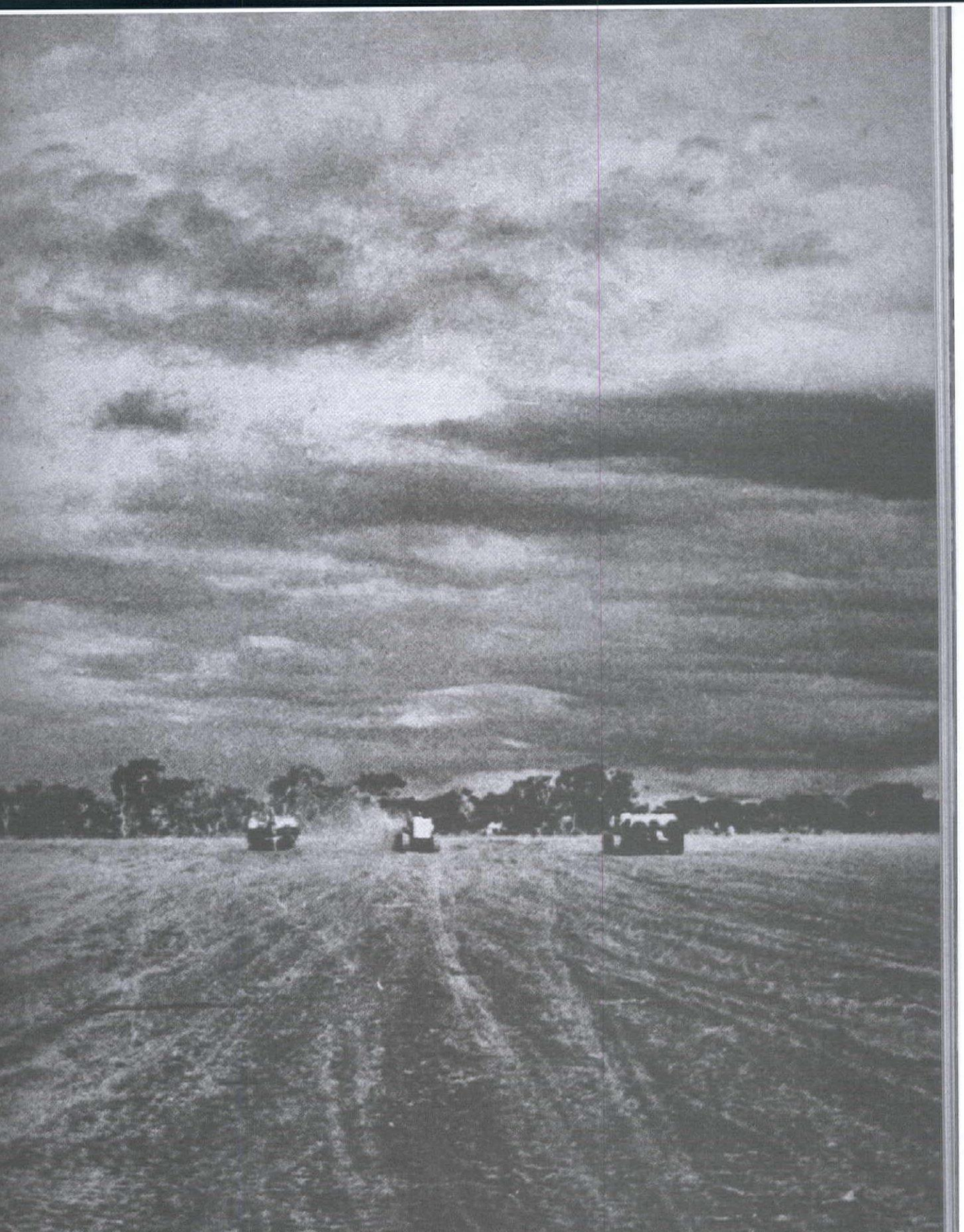
1956

Nearest paved road:	640 km
Nearest railroad:	125 km
Nearest airport:	190 km
Available timber:	1,200 km
Available steel:	1,600 km
Available sand/gravel:	local
Builders:	100,000+
Intended population:	500,000

2003

Population (2000)	2,043,169
Area (federal district)	5,783 sq km
Longest highway	2,276 km, connecting to Belém

29 CLEARING BRASÍLIA OSCAR NIEMEYER 1960



CLEARING BRASÍLIA OSCAR NIEMEYER 1960 30

The arrival of the masses onto the historical stage was theorized at the beginning of the twentieth century along with the emergence of the modern metropolis; one was not imaginable without the other.

Ana Miljački

ANTI-LOBOTOMY

The visible evidence of resistance in 1990s Belgrade

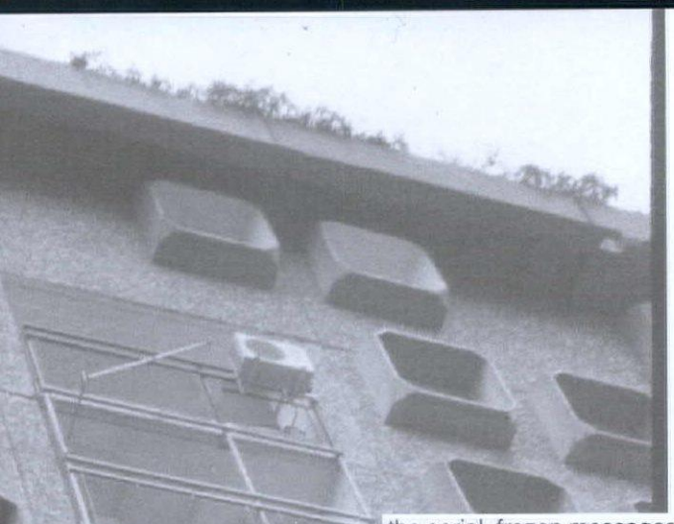
At the end of the 1930s the tone of the most astute chroniclers of the period trembled in warning as they described the logical cataclysmic conclusions of their reports.[1] Thereafter, the rise of menacing totalitarian regimes became inextricably linked with the image of the swelling size of manipulable, politically undifferentiated masses.[2] So closely knit were the conceptions of masses, mass media, and totalitarian regimes that every subsequent critique of any one of these phenomena implied the immanent existence of the others.[3] This essay will propose a configuration of masses, mass media, and a regime (that many would call totalitarian) in Belgrade in the late 1990s, a configuration in which masses take to the streets and historical processes and events become decipherable against the background of old Communist strategies of mass enlightenment.[4] Following the uprisings across Eastern Europe in 1989, the 1990s were for Belgrade an era of reconstructing a public sphere, of numerous demonstrations against the regime, and of historical trauma. The scenes of Belgrade's mini-October (2000) revolution that America watched unfold on its television screens were preceded by a long and important protest in the winter of 1996–1997. Although the 1996–1997 protest's reach and novelty were remarkable, it was not without fault. The problem was not that the protest failed to radically change the situation in Serbia but that in the face of imminent violence in Kosovo, it said nothing about the issue. While not unproblematic, the Belgrade protest, together with a complex series of everyday phenomena, articulated and communicated the contours of historical change.

Seeing history

After World War II—about twenty-five years later than in the Soviet Union—the class struggle was systematically proclaimed over in every new state of the Communist bloc. Suspicious individual elements that needed to be reckoned with remained, but on the whole the anonymous masses instantly became the subject of the production of history in the socialist world.[5] Since the masses did not have a particular political identity to motivate them, other than the "proletarian" one assigned to them overnight, they needed to be organized for production—top down. The two most widely employed organizing methods were political education (various species of propaganda) and the erection of new mass-housing districts (either as part of new industrial complexes or as new appendages to old cities).[6]

In the early 1950s, the erection of housing blocks spread from the Soviet Union throughout the Eastern bloc, along with numerous management strategies, industrial and military contracts, and ideology. With Khrushchev's interest in resolving the housing shortage and with the development of prefab technologies, the production of housing was reaching a new level.[7] Amid the frenzy of the new pragmatism and empiricism characteristic of the Khrushchev era, prefab housing was stripped of its socialist realist facades.[8] The form and the layout of the housing estates were developed so as to mediate between concerns of the scientific managers and concerns of those in charge of "enlightening" the masses. Thus housing estates represented the collective nature of the new societies and their particularly industrial orientation. The city was understood both as an apparatus for production and leisure *and* as a medium of mass communication. Insofar as it was involved in mass broadcasting of messages, the city displayed symbolic meaning on its "speaking" facades and in the concrete and formal expressions of the parading masses. The socialist spectacles, as much as the layout of housing estates, functioned as part of a supergraphic that spelled "ideology." They were both meant to speak of, and were predicted to engender, the logic of collectivity. Standing abstract and mute along the speedways from the city center, the prefabricated buildings waited for the right moment to cast their vote in politics. Life was slowly taking root in these districts while the playground furniture deteriorated and the synthetic landscape mutated into a new wilderness. With time

↓ The 1996 protests.



← Facade detail of the Televizorke (Block 28).

the serial, frozen messages about the prosperous life in the socialist countries grew suspect and oppressive, like the persistent skipping of a worn LP.

In most cities of Eastern Europe between 1989 and 1991, the masses transformed into citizens, in the old, political sense of the word. They came out of political hiding, took risks, and participated in collective action. The city was the unit of the 1989 uprisings. In 1989, the citizens became *visible* in Eastern Europe; indeed, the city was articulated through the practice of its citizens, at least for a certain amount of time.[9] A recent, revised definition of the contemporary city argues that the existence and the perception of the city are functions of the *thresholds of visibility* of historical processes and these processes' effect on matter.[10] In this way, the city is understood not as producing visible phenomena, as if these were merely the lascivious, the sweet, or the dreary excess of various productive processes, but as existing through and in the visible phenomena.

For the entire 1990s the citizens of Belgrade staged and restaged demonstrations against the Milošević regime.[11] Staying within the narrative of visibility, I propose that the ability of certain phenomena to communicate encouraged political action and the building of something like a public sphere, parallel to the existing one. The conditions within the housing districts in Belgrade and the displays and strategies of the protesting masses on the streets are the two instances in which the citizens of Belgrade were "visible" in the mid-1990s. The theme of visibility on its own would indeed be a definitive sign of nostalgia for a time when perceptibility simply provided direct access to knowledge. In fact, we have repeatedly been told that visibility is a thing of the past. As if Guy Debord's thesis on spectacle were not a strong enough blow to the status of the real, Jean Baudrillard's simulacra—trompe l'oeil copies without originals—and the corresponding peculiar status of the image have definitively cast suspicion over every narrative of visibility.[12] But if we see the Communist world as steeped in something like

1. All the enthusiasm Walter Benjamin expressed for the medium of film and its political potential in his famous essay "The Work of Art in the Age of Mechanical Reproduction" is eclipsed by the darkness of the essay's closure. Although his theoretical commitment to Communism propels him still to make a distinction between the fascist and Communist mixture of politics and aesthetics, Benjamin admits in horror that the distracted masses, unified only in their consumption of filmic images, are on the verge of collective hysteria and war. Related to Benjamin's study only through historical proximity and the chronicler's task, José Ortega y Gasset's *The Revolt of the Masses* is entirely motivated by a warning about the inevitability of mass revolt, both possibly democratic and possibly diabolical.

2. This is precisely the thesis of Hannah Arendt's impassioned study on totalitarianism. See Hannah Arendt, *The Origins of Totalitarianism* (New York: Meridian, 1958).

3. The entire body of work produced by the Frankfurt School critics exemplifies an attitude toward mass media forever shaped by the experience of World War II. Mass culture here is not only caught in the eternal bashing of the negative dialectical critique on its own terms but also condemned by its participation in the rise of fascism. Perhaps the most brutal critique of mass culture ever written fills the pages of Max Horkheimer and Theodor Adorno's *Dialectic of Enlightenment*.

4. The megaphone, the radio, and film were all mass media in the sense that we usually use the term: transmitting messages to mass audiences. But more important for this essay, the entire Soviet city was understood in terms of its mass-mediatic function. This leads us both to an understanding of mass media (more complicated than the usual mass-media suspects and their individual status as apparatuses and technological inventions) and to the mechanical, machinistic conceptions of the city by the early Soviet avant-garde. The conception of the Soviet city in the 1920s and 1930s has been well documented and is the basis for the later (less well documented) hyper-scientific models of the 1950s and 1960s city in the entire Eastern bloc. For an excellent survey of the major theories and projects of, as well as participants in, the Russian avant-garde, see Catherine Cooke, *Russian Avant-Garde: Theories of Art, Architecture, and the City* (London: Academy, 1995).

5. If this rings utilitarian, it is meant to. The arrival of Communism in eastern and central Europe was even less a result of a historical process involving the growing self-awareness of the proletariat than it was in the Soviet Union. Thus dissemination of the fully developed propaganda scheme of the Stalinist state was crucial in proclaiming the era of proletarian dictatorship in the Eastern bloc. History, even in Marx's view, was something possible to produce, to willfully bring about. For a discussion of the utilitarian aspect of Marx's formulation of history (through the concept of class struggle), see Hannah Arendt, *Between Past and Future: Eight Exercises in Political Thought* (1961; New York: Penguin, 1997).

6. In her study on totalitarianism, Arendt diagnosed the Soviet disintegrated classes as a perfect example of masses without a group identity and without any stable basis for one. According to her, since they did not have any political cohesion, these kinds of masses could be organized only through propaganda. Thus "the true goal of totalitarian propaganda is not persuasion but organization—the 'accumulation of power without the possession of the means of violence.'" In Arendt's thesis, then, propaganda is equated not only with organization but with terror as well. See Arendt, *Origins of Totalitarianism*.

7. At Khrushchev's request, the prefabricated housing slabs are perfected, simplified, and standardized in this era, thus acquiring the name *Khrushchevka*. Khrushchev's speech, presented at the All-Union Conference of Builders and Architects, was published in Pravda and Izvestia newspapers in December 1954 and has been reprinted as "Remove Shortcomings in Design. Improve Work of Architects" in Joan Ockman, *Architecture Culture, 1943–1968: A Documentary Anthology* (New York: Rizzoli, Columbia Books of Architecture, 1993).

8. Reyner Banham claimed that Khrushchev's speech brought to a halt the spreading of the socialist realist ideology. The speech had a great and immediate impact on the production of prefabricated housing in the Soviet Union and in Eastern Europe, but its effect was so far-reaching that it "left advocates of Socialist-Realist architecture all over the world without ideological support." For a discussion of the effect of Khrushchev's speech on British architectural discourse in the mid-1950s, see the first two parts of Reyner Banham, *The New Brutalism: Ethic or Aesthetic?* (New York: Reinhold, 1966).

9. Viewing the city as a practice here means not that urbanism is suddenly every man's job but that perhaps there are particular practices that turn us into citizens.

the proto-culture and logic of the simulacrum, then every resistance to Communist regimes will be played out on the battlefield of representation. On the other hand, in terms of the definition of the city as a threshold of visibility, the appearance of the citizens on the streets of Belgrade, both literally and as a representational and mediatic strategy, should be understood as signaling a change in this city's modality. Furthermore, I argue, in the case of Belgrade the visibility of the protesting masses and their living conditions participated in the mass-mediatic tactics of resistance and opposition.[13] Thus it is important to cast these two themes against the socialist surfaces of appearances that preceded them.

Lobotomy

As they diagnosed the rise of the masses in the 1920s and the commensurate qualitative and historical change, both Walter Benjamin and Siegfried Kracauer began an analysis of the surface-level expressions of their age. Working from the tableaux of everyday life, they examined the concrete details thrown up by a less and less easily articulable historical stratum. The growing scale of the metropolis and the ever smaller and more particular scale of rationalization fragmented and multiplied the masses, or so goes a central narrative of modernism.[14] As the masses became the subject of history, the surface of their daily lives was the most natural place to investigate. The visible and the articulable micro-phenomena had a particular epistemic function for Benjamin and Kracauer, whether we are speaking of the handmade toys that were about to disappear from the streets of Moscow or about the synchronized movements of the tiller girls.[15] Visibility granted some phenomena a descriptive eloquence about the logic of the age that produced them. Although this had been a familiar adage in art history for a while, in the work of Benjamin and Kracauer (and a number of their peers) we find the art-historical theme of the aesthetic expanding to encompass and to focus on a new constellation of concerns, now more appropriately called cultural or, better yet, mass-cultural.

It seemed perfectly logical for the revolutionary leaders to hijack surface appearances for messages they wanted to send out to their new proletarian masses. Just as surely as we can expect the logic of allegory to emerge in response to every new crisis of representation, the adoption of symbolic, didactic representational techniques seems to be coupled with most immediately postrevolutionary moments.[16] So, the strategy of the magicians of mass enlightenment itself was not surprising, but the fact that it lasted for eight decades—chasing after and re-presenting the goals of the proletarian revolution as if these were the most persistent twentieth-century version of a mirage—ultimately meant that the relation between the revolutionary propaganda and the revolution became strained.[17] The production of the proletarian dictatorship engaged in acts of dissociating surface "expressions" from their factual content in lived experience.

Describing the story of urban congestion during a period roughly contiguous with the October Revolution, Rem Koolhaas diagnosed a similar process in the

10. During a panel discussion at the conference "The Politics of Contemporary Architectural Discourse," which took place at Tulane University and whose proceedings were reported in *Assemblage* 27, Sanford Kwinter said, almost in passing: "I made a comment early on in the paper that said that cities were historical constructions that could be defined by the fact that they were the places where one could see history acting upon matter. That is to say, that a certain type of change became visible, perceptible, imposed in a new way on human nervous response." *Assembly 1*, *Assemblage* 27 (Aug. 1995), 36. Although the major thrust of his paper at this conference and of his comments in *Assembly 1* was supporting Rem Koolhaas's notion of Bigness as a historically new articulation of the concept of city (Bigness as a qualitative threshold and new modality), I would like to highlight a part of Kwinter's statement that for the most part went unnoticed. "I would propose this even as a definition of the city: the place where historical process becomes visible," says Kwinter in his paper "Politics and Pastoralism," 27, and for my comments I rely on this statement, perhaps even on a misreading of it, placing emphasis on the visible rather than on "the place." Thus if the city can indeed be understood as a function of the thresholds of visibility, then Bigness may be one of them, but not the only one.

11. Having in a way missed the momentum of the 1989 uprisings and the spectacular energy of the destruction of the Berlin Wall, Belgrade's protests highlighted the fact that the narrative of Communism in Yugoslavia was structurally and historically different from the stories of most Eastern European countries. In 1948–1949 Tito opposed Stalin's pressure. Consequently, his abandoning many dogmas held sacred by the Communist world, his introducing the concept of "self-management" (mostly for the sake of popular support in the face of exterior pressure), and his pan-Yugoslav ideology were all perceived as "revisionism" by the Soviet leadership. Having based most of his internal policy in opposition to the Soviet Union, Tito grounded his rhetoric in a critique of bureaucratization without a radical practical redefinition of the role of the party. Still, the important difference between Yugoslavia and other Eastern European countries (with their successful 1989 revolutions) in the late 1980s and early 1990s had to do with the lack of a clearly defined oppressor. It was not the Soviet Union and politicians endorsed by it that the Belgrade protests would be addressed against. The country was falling apart internally as pan-Yugoslavianism was replaced by rampant nationalisms and the multiple heirs to Tito's once absolute power were unable to redefine the political and bureaucratic structure at the highest level of leadership. As the League of Communists of Yugoslavia was attempting a complete restructuring in the face of its imminent dissolution in 1990, the Communist parties were losing their local power in Slovenia and Croatia and eventually Bosnia and Herzegovina, as well as Macedonia. During this unstable period the Communist "cause" was hastily articulated as the commitment to the Yugoslav Federation. In the first quasi-pluralist elections in Serbia, the Communists managed to stay in power. Thus the commitment to the Yugoslav Federation and the all-Yugoslav army were hereafter under the auspices of Slobodan Milošević's ruling appetite and were seen as a Serbian mission. That Milošević's inflammatory nationalist rhetoric and activism equaled Tudjman's in Croatia would not stop the further implosion and fragmentation of the entire region. While the Belgrade protests in the 1990s have to be seen in this context, their main target was repeatedly grounded in internal issues and against the inward manifestations of Milošević's rule. For an excellent introductory discussion of Tito's breakup with Stalin and for an in-depth analysis of the rise of civil society and the events of 1989 in Eastern Europe, see Vladimir Tismaneanu, *Reinventing Politics: Eastern Europe from Stalin to Havel* (New York: Free Press, 1992).

12. See, for example, Guy Debord, *The Society of the Spectacle* (New York: Zone Books, 1995); and Jean Baudrillard, "Simulacra and Simulation," in *Jean Baudrillard, Selected Writings*, ed. Mark Poster (Stanford, Calif.: Stanford University Press, 1988).

13. Visibility here should be understood not simply as an optical phenomenon but as a type of articulation that has some decipherable relation to events and processes whose unfolding we literally see.

14. For examples, we need only think of the concept of reification in Marx or Lukács, rationalization in Max Weber, and the subsequent traces of their narratives in Fredric Jameson's work, or of the status of fragment and seriality in every version of aesthetic modernism to diagnose the consistency of the themes of rationalization, fragmentation, and the masses and their coexistence in every account of modernism.

discrepancy between the container and the contained in New York City's skyscrapers.[18] Breaking with the "humanistic assumption" that there was a moral relationship between the facade and the interior, the skyscraper was freer than ever for inhabitation. Koolhaas called this operation the architectural equivalent of a lobotomy. The monolithic facade of the skyscraper was severed from ever again having to express the everyday life that took place behind it. For the skyscraper this meant the freedom for unexpected and extraordinary interior organization.[19] The *concept of surface* in Kracauer and Benjamin operated analogously to a transparent architectural facade. The *location of surface* in their work is coincident with its mediatic potential. It had an epistemic importance because it was seen as a more or less direct result of the complex processes of everyday life. For them, the epistemic potential inherent in deciphering visible phenomena had not a moral function but an important political one. This political function of surface-level expressions was most explicitly stated in Kracauer's "Mass Ornament" essay. According to him, mass-cultural phenomena functioned as an "aesthetic reflex of the rationality to which the prevailing economic system aspires," providing a type of "mirror" for the masses.[20]

The concept of "lobotomy," of frontal lobes severed from the rest of the nervous system, is a nearly perfect description of the relation between urban life in Eastern and Central Europe and its representation in (local) media for almost half a century. The *mediatic city* participated in a systematic disregard for factual reality from the very beginning. At first the placards and billboards were there to inspire another "reality." Later this false bravado was simply treated as a mere index of reality, without any irony about its actual simulacral logic. Any attempt to produce a negative term, something like a reversed lobotomy or anti-lobotomy, inevitably contains the contradiction inherent in the process itself. Thus an attempt to reverse the media strategies of the Communist world could not be a simple recuperation of a lost connection between life and its representations (or a simple resurrection of the logic of the pre-Communist public sphere), but perhaps could be a new entity—a new strategy of representing and deciphering that would still contain the memory of the initial schemes of dissociation.

In the documentary *I'm So-So...*, the Polish filmmaker Krzysztof Kieslowski spoke of his role as a producer of images in the context of socialist Poland. He understood his role as ethically circumscribed by the need to bring into discourse aspects of life that were invariably not represented in the officially promoted art and media of the socialist world: "Our descriptive tools had been used for propagandistic purposes. ... Outside Poland, you don't know what it means to live without representation."[21] In most of Eastern Europe living "without representation" meant that no real public forum existed in which one could discuss the circumstances that affected daily life; it meant that people drifted in and out of a collective pretense about the very importance of the collective; it meant that without official assurance that something could be safely discussed in public, people turned inward, cautiously socializing only with the closest circle of their confidants.

↑ Characteristic of New Belgrade's figure/ground proportions, playgrounds, parking lots, and green spaces carpet the flat New Belgrade land designated as Block 70. Built based on the 1965 urban-plan competition and the 1967 architectural competition, the apartment high-rises of Block 70 march uniformly from one of New Belgrade's major thoroughfares, Jurija Gagarina Street, toward the banks of the river Sava.

15. Walter Benjamin was delighted that the fullness of his experiences on the streets of Moscow was not reified, was not regulated. But his optimism in describing the toy sellers of Moscow was, as always, tempered by his melancholy sense of their imminent disappearance. See Walter Benjamin, "Moscow," in *Reflections* (New York: Schocken, 1978). Siegfried Kracauer was one of the first to acknowledge the significance of Benjamin's research into the material fragments of everyday existence. Kracauer's own understanding of history was one of a continuous (forward) struggle in demythification. He started from the present and believed that once we face our own reality in the mass ornament, like in a mirror, we will be equipped with emancipatory knowledge for our future (at least until we are co-opted into another, qualitatively different mass ornament). See Siegfried Kracauer, "The Mass Ornament," in *The Mass Ornament*, ed. Thomas Levin (Cambridge, Mass.: Harvard University Press, 1995).

16. That the emergence of allegory marks the moment of representational crisis has been argued by theorists of allegory such as Paul de Man and Fredric Jameson. More important for my point here, architectural production following the French Revolution had an overtly communicative role. For a discussion of the communicative program of revolutionary architecture, see Anthony Vidler, *The Writing of the Walls: Architectural Theory in the Late Enlightenment* (Princeton, N.J.: Princeton Architectural Press, 1987).

17. The Commissariat of Enlightenment was formed promptly after the October Revolution in 1917, and its task was an awesome structuring and restructuring of the new proletarian education at the scale of the entire union territory. If this type of institution and its project for enlightening the masses is seen as symptomatic of, and even necessary in, the time immediately after major structural social change, then the fact that the logic of propaganda did not change for half a century has to be seen as a dogmatic reproduction of something like the rules of propaganda, which had, for all practical purposes during that time, become sacrosanct.

18. See Rem Koolhaas, *Delirious New York* (New York: Monacelli, 1978).

19. The concept of "lobotomy" in *Delirious New York* appears in relation to the auto-monumentality of the skyscraper, and although the famous *Chicago Tribune* competition (1922) is not directly referenced here, the "lobotomy" section could easily correspond to and describe the "crisis of the skyscraper" that Manfredo Tafuri found summed up in the *Chicago Tribune* competition (in *The Disenchanted Mountain*). The "burning" question in 1922 was that of representation: What formal language could adequately publicize and exalt the capital that skyscrapers expressed? Representation is the crux of an "architectural equivalent of a lobotomy," for it "separates exterior and interior architecture. In this way the Monolith spares the outside world the agonies of the continuous changes raging inside it. It hides everyday life." Koolhaas, *Delirious New York*, 101.

20. Kracauer found these aesthetic expressions, "reflexes," important and powerful partly because of their cultural marginality, which meant that they were widespread and accessible to everyone as well as unmediated. Their messages were not part of a propaganda ploy; they were the debris of real conditions of life.

21. Quoted in Annette Insdorf, *Double Lives, Second Chances: The Cinema of Krzysztof Kieslowski* (New York: Miramax, 1999), 16. The interview originally appeared in the documentary *Kieslowski: I'm So-So-...* Kieslowski states: "Perhaps we were the first postwar film generation, and I say 'we' because there were so many of us, who tried to describe the world as it was. We showed only micro-worlds. The titles suggest this: 'The School,' 'The Factory,' 'The Hospital,' or 'The Office.' If these mini-observations were pieced together, they would describe life in Poland. — *Why did you want to do this?* — Living in an undescribed world is hard. You have to try it to know what it feels like. It's like having no identity. Your problems and sufferings disappear. They disintegrate. To put it more radically: You feel completely cut off from other people. You cannot refer to anything because nothing has been described and properly named. You are alone. But our descriptive tools were used for propagandist purposes. Theoretically, perhaps our ideas were great, but at the end, they would always be pointing a gun at you." *Kieslowski: I'm So-So...*, directed by Krzysztof Wierzbicki, produced by Karen Hjort for Kulturemode Film, 1995.

22. See Nancy Fraser, "Rethinking the Public Sphere: A Contribution to the Critique of Actually Existing Democracy," in *The Phantom Public Sphere*, ed. Bruce Robbins (Minneapolis: University of Minnesota Press, 1993), first published in *Habermas and the Public Sphere*, ed. Craig Calhoun (Cambridge, Mass.: MIT Press, 1992).

23. The "instruction manuals" for all versions of civil society involve the building of forums within which public discussion can take place. The concept of public sphere (with or without a credit to the philosopher who mobilized this notion in a formal philosophico-historical investigation, Jürgen Habermas) was in a sense at the very core of the idea of the parallel polis.

24. Occupying the same street space in the 1990s as the trained army of youth did at an earlier point—and producing didactic ideological patterns in the name of Tito and the party—disheveled, persistent, and self-organized students and citizens yelled out their demands in chorus.

25. For a now canonical philosophico-historical investigation of the public sphere, see Jürgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society* (Cambridge, Mass.: MIT Press, 1989).

26. An earlier general plan of Belgrade, from 1923, had already projected the development of the territory now called New Belgrade, but as this little book (predictably) states, "Nothing came of those plans." Even before the general plan was drafted, work on the urban plan of New Belgrade and its realization began in 1947. According to these new plans, the construction of New Belgrade entailed the production of small regional centers; cultural, political, and economic nodes; and an infrastructure that would connect this settlement to the old city core. See *Novi Beograd, novi grad* (Belgrade: Direkcija za Izgradnju Novog Beograda, 1961).

27. Or at least a strange hybrid of the imported Khrushchevian prototypes and the embryonic pre–World War II versions of local modernism.

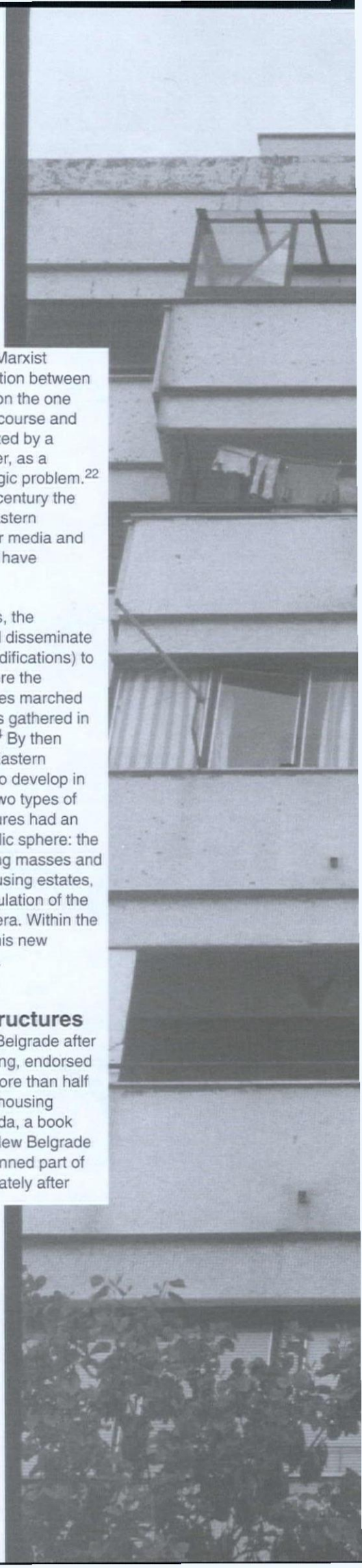
28. Discussing Marx's utilitarianism and his notion of history, Arendt compared the production of history in Marx to the production of end products (in the sense that the table is an end product of the carpenter's activity). Thus in her mind the limitation of utilitarian thought in general, and of Marx's thought in particular, "is in the fact that nothing but patterns can make sense, because only patterns can be 'made,' whereas meanings cannot." See Arendt, *Between Past and Future*, 80–81.

29. A number of these surveys have been presented in the publication organ of the Urban Center of Belgrade, *Komunikacije*, and in the architectural journal *Architektura urbanizam*.

30. In Belgrade during the late 1980s and early 1990s, another generation of buildings began to claim large portions of areas previously reserved for green space. The international flood of po-mo settled into the crevices of modernist housing blocks. Shortly after these lower, "more humane" renditions of housing, shopping, and the occasional McDonald's took their posts, the most resilient type of economy—gray and black market kiosks—haphazardly filled in the leftover plots.

31. In 1999 the information director for the Regional Environmental Center for Central and Eastern Europe, Paul Csagoly, counted 170 million people residing in over 70 million apartments in prefabricated-panel settlements throughout central and eastern Europe and Russia. See Paul Csagoly, "Panel Buildings," *Bulletin* 8, 3; www.rec.org/rec/bulletin/bull833/citiestonws.html.

32. It is important to differentiate the nature of the public sphere and its politically engaged citizens from the logic of the bourgeois public sphere described by Habermas. The moment this is done, the housing blocks gain an epistemic role, for they are a structural part of both the Communist regime and the reaction to its oppression. Still, ingredients of the public sphere described by Habermas have been crucial for every subsequent articulation of this concept.

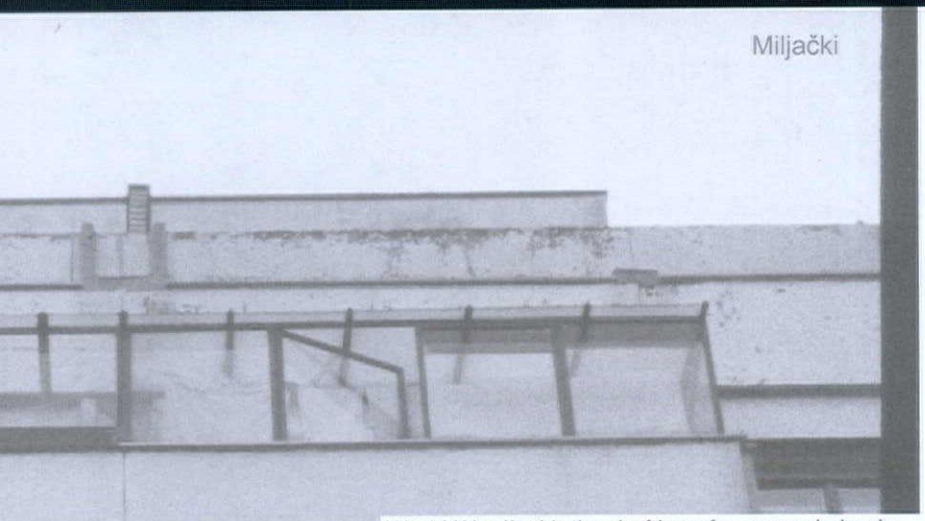


The failure of the dominant socialist and Marxist tradition to see and to theorize the distinction between the state apparatuses of representation, on the one hand, and the public arenas of citizen discourse and association, on the other, was characterized by a theorist of the public sphere, Nancy Fraser, as a historically momentous and ultimately tragic problem.[22] And momentous it was; for almost half a century the fickle and paranoid governments of all Eastern European countries held a monopoly over media and the zones in which a public sphere would have otherwise developed organically.[23]

Sooner or later in most Eastern bloc cities, the infrastructures put in place to support and disseminate ideology served (with some important modifications) to bring down the Communist regimes. Where the parading masses of the socialist spectacles marched many times before, the protesting masses gathered in 1989 and at the beginning of the 1990s.[24] By then dissident activity had taken root all over Eastern Europe, and a new public sphere began to develop in the shadow of official slogans.[25] In fact, two types of modifications of the old media infrastructures had an important role in constituting the new public sphere: the mobilization of the streets by the protesting masses and several decades of inhabitation of the housing estates, each representing a historically new articulation of the "surface expressions" of the Communist era. Within the context of the Communist mediatic city, this new articulation was an *anti-lobotomy* of sorts.

Permanent and temporary structures

Like every other city in the Eastern bloc, Belgrade after World War II began constructing its housing, endorsed by Tito and built by "the people." Today more than half its built territory is carpeted with socialist housing developments. A small jewel of propaganda, a book from 1961 presents the development of New Belgrade (the first and now the largest centrally planned part of Belgrade), beginning in the years immediately after



← Block 29.

World War II with the drafting of a general plan in 1950.[26] At the time the publication was produced, about 30,000 people were living in the first experimental housing blocks, and the plans anticipated 100,000 inhabitants by 1965. A perfect diagram of the Communist propaganda of its period, the book moves smoothly from planning to images of happy workers and volunteers on the construction sites to images of children and contented inhabitants.

Whether presented in this agitprop publication or in more specialized architectural journals, the initial plans and models were never publicly elucidated in discussions about the idiom in which the new socialist part of the city would be built. Emphasis was placed on the functioning of the new thoroughfares, new municipal districts, and recreational areas. The abstract modernist face and proportions of the housing slabs and high-rises, regularly sprinkled on the flat green modernist garden, were a given.[27] Trying hard to be convincing about the positive outcome of this experiment in socializing, resulting from the massive plans for modernization of construction and of living, the New Belgrade book swings in mood from foolhardy confidence to the exaggerated grimace of a tired method actor. It did not even take a decade for the architects and urbanists of Eastern Europe to realize that they had been trapped between the desires and programs they had inherited from the Athens Charter (an important product of a different social system) and the Soviet urbanists (more experienced in building the Communist utopia), on one side, and the impossibility of their task, on the other. Their instant cities repeatedly failed to be instantly lively.

The mechanical production of history was the production of a pattern, nowhere more obvious than in the new housing districts.[28] As early as the 1960s, numerous surveys of the quality of life in the blocks rated their proximity to jobs, their integration with adjacent housing districts, and their aesthetic appeal.[29]

The vague and all-encompassing adjective "inhumane" became the code word used to specify the aesthetic of the blocks, which kept rising from the construction sites surrounding the city center in all directions.[30] Early reports on everyone's welfare in the housing districts were forced and constructed, if not wide-eyed and naive. But in terms of sheer numbers, the housing "achievements" throughout the Eastern bloc are hard to dismiss. The housing developments stand as the most important features of the cities in the now post-Communist Eastern bloc, in a sense constituting an urban condition that is specific to the geopolitical history of the Eastern bloc but that is at the same time a type of general condition: the Eastern European common (or *generica*).[31]

Often characterized as obscene or brutal, and once in a while as possessing a discreet charm, these housing developments, in a variety of architectural expressions, play an important role in the development of a post-Communist subject and post-Communist public sphere.[32] In Belgrade these large abstract housing structures, as much a part of the infrastructure as the roads they feed off, were eventually appropriated by life. It took several decades and several turns in the economic and social system for them to accumulate enough complexity to become something more than gigantic dormitories. Fifty years after the first housing districts were built, wherever the units included a system of open balconies one can find a wide variety of solutions for enclosing them. These enclosures are always built in the idiom of temporary structures, with the materials and tectonic logic of shantytowns. Once personalized, the balconies become storage spaces, or bedroom extensions, or dining rooms: 2 or 3 square meters of space outlined with aluminum frames and glass, cardboard walls and plastic, or welded iron bars and some material never designed to serve as infill. These "temporary" expressions of individuality and of socioeconomic circumstances displayed on the fanjade of the prefab concrete bar buildings and apartment

↑ From *Novi Beograd, novi grad*. Left to right: Beaux Arts proposal for the development of New Belgrade from 1923; Tito's architects and planners checking the drawings for the development of New Belgrade; general plan for New Belgrade from 1950.

high-rises should be understood as surfaces whose particular content could be "read." Certainly the inhabitants of the blocks can read the facades that surround and face them. The importance of interpreting the facades is not in establishing exactly how the opposition between standardization and individuality, or individuation, was negotiated in the housing districts, the way Philippe Boudon's 1969 analysis of Le Corbusier's Pessac attempts.[33] Instead, we have to understand these surfaces as *mediatic*. The usual self-referential layout of the housing blocks allows their inhabitants to face each other. Eventually the inhabitants understand themselves as constituting a public together, as sharing the same historical, economic, and political experiences.[34]

There is a set of unusually long bar buildings in New Belgrade (Block 28) fenestrated with characteristically shaped windows, colloquially called *televizorke*—television buildings. The equation of television with the facade, or more precisely with the rounded windows that protrude from it like so many television sets, is only partly a result of the simple mimetic relationship between them. Since there was never any mystique about the reified modularity of the prefab curtain walls in the Communist system—they were from the outset, understood as vehicles of the organization of flux, and the material emblem of Communist society—it is not their initial silence that is surprising, but their eventual eloquence. According to Reinhold Martin's analysis in *Perspecta 32*, "like television, and with television, the curtain wall unhinged the apparent closure of the same fully administered lifeworld" that it prefigured in the West.[35] On the other side of the Iron Curtain, the curtain wall, the prefab panel version of it, was part of a different problematic equally mediatic as its capitalist counterpart, and perhaps equally a part of a disciplinary scheme; several decades old, it now facilitates the visibility of the bare facts of life.

As the inhabitants of these districts learn to utilize the total view granted to them by their own window, the housing structure assumes indexical capacities, representing life and "things as they are." Thus "reading" them involves a type of identification with the collective that cannot be defined through belonging to a particular social group.[36] At the end of the 1990s, instead of cohering through class identification, the collectivity was constituted positively through the generally shared standard of living, and negatively through disagreement with the regime and political impotence against it. Insofar as the facades of the housing blocks are experienced as mediatic, their audience in the 1990s witnessed a myriad of uncensored, *ordinary* messages.

The same way we notice the process of aging, knowledge about the lives of the inhabitants of a block accumulates with time. In the mid- and late 1990s, the jury-rigged structures on the facades of the housing estates spoke eloquently. These temporary structures told stories about the glorious housing plan, about the exhausted housing-maintenance management, about the cramming of generations of the same family together, and about the paranoia of daily survival in a country that was faking peacetime. The critical aspect of the temporary here is the recognition of a temporary structure where there was never meant to be one. The accumulation of these structures is more than simply symbolic: it indexes a systemic failure. Unlike the temporary world of the protest, with its special occupation of both the space and the time of a city, temporary structures hanging from the more or less abstract facades are not a product of the immediate crisis. They are not simply a chorus of complaints, although their criticality is proportionate to the proliferation and to the persistence of the phenomenon. After watching them "grow" for twenty years, one learns to recognize figures in their heterogeneity. Perhaps most important, their ordinary, unthreatening origin in the everyday is hard to contradict by an official explanation.

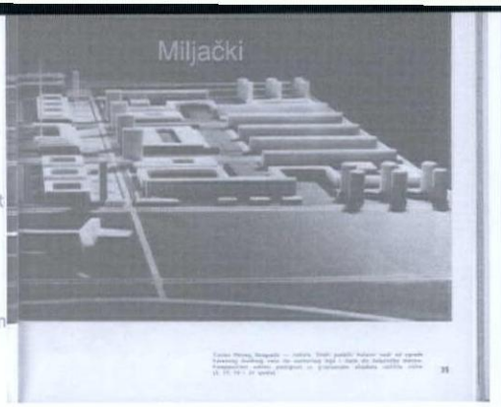
Real time and time out

During the winter nights of the 1996–1997 protest in Belgrade, the windows and balconies in various housing districts were repeatedly mobilized for political displays of no confidence to the regime. Taking any and all noisemaking devices—from pots and whistles to stereo systems—to the windows, the inhabitants of the housing districts and citizens in other parts of Belgrade called their collective noisemaking "the drowning of lies." This action took place during the official news hour, replacing the state broadcast with desperate, dissonate, and beautiful noise for the length of the program.

When it started in November 1996, the students' and citizens' protest was the

↓ The prophetic puppet of Milošević in jail uniform cheered on the protesting crowd.



↑ "Life begins in the new city. The builders move on, leaving new apartments behind. Children find places to play in the shadows of the construction cranes just as quickly as the adults find routes for their afternoon stroll."

fourth in a series of more formalized demonstrations against the Milošević regime. "Protest" was the widely accepted term for the mass demonstrations and the series of activities that constituted the general display of popular dissatisfaction with the situation. At moments, the protest approached the familiar "riot" form, but in general it maintained a consistent level of softness. The protests that preceded the winter of 1996–1997—the first in 1991, a citizens' protest prompting by far the most violent reaction from the regime, and the student protests of 1991 and 1992—all occupied specific locations in the city. Although these protests were strategically placed, their scope was easily contained, in terms of both geography and organizational reach.

The first anti-Milošević protest in Belgrade, in 1991, developed from a reaction to the government's total control of media. Its anti-media premise was its most clearly articulated aspect.[37] The lessons from this protest (both the protest of citizens, which was violently crushed by the regime, and the student protest that arose in response to the regime's use of tanks) were assimilated into the next round of uprisings. It was not enough merely to express dissatisfaction with the state of things in order to be taken seriously by the regime or by the world community. Thus the media issue took on a performative dimension during the 1996–1997 protest, not only because media were the content of the messages but also because their subversion defined the spatial and temporal tactics of the protest. From the outset the 1996–1997 protest adopted a strategy of self-restraint, not unlike the nonconfrontational stand of the Velvet Revolution and concurrent concepts of a parallel public sphere articulated by Czech dissidents.[38] By shifting the terrain of its strife with the regime from a head-on violent encounter toward the sphere of spectacle—to what the most adamant critic of spectacle, Guy Debord, defined as the zone of the radical opposition of reality and its representation—the protesters disturbed the axiomatic relationship between the regime's violence and its denial of violence. The public sphere was from its inception, at least as it was argued by Habermas, a representational space, whether it involved the representation of the prince's sovereign power, or the representation of the will of the people, or its regression into a moldable and pollable public opinion. Insofar as the public sphere involves representation, it involves spectacle as well.[39] In the recent history of extraordinary events in Belgrade, the 1996–97 protest holds perhaps the most important place. It lasted for four months, a significantly long time given that most similar events before it never took more than twelve days to complete successfully (or to be crushed, for that matter).[40] Its duration made its logic perceptible. Its continuously mobile crowds and its length made it special in terms of protesting tactics, but the production of a public discourse, parallel to the regime's media, made it important. Thus the three most significant ingredients of the 1996–1997 protest were the particular human relations experienced during the four months it lasted, its relation to time, and its representational aspect.

A series of tactical maneuvers by the protest's organizers and participants

↓ December 24, 1996. Live wall made of special units in antiriot gear pushing the anti-Milošević crowd.

33. See Philippe Boudon, *Lived-In Architecture: Le Corbusier's Pessac Revisited*, with a preface by Henri Lefebvre (Cambridge, Mass.: MIT Press, 1972). Opening with a quote from Le Corbusier, "You know, it is always life that is right and the architect who is wrong," Boudon sets out to analyze distinctions, individual qualities, produced by the Pessac occupants in the originally undifferentiated urban setting. He argues that the occupants managed to personalize the low-cost modernist housing through conversions and additions, seen as fulfilling both spatial and, more important, aesthetic needs. The work relies heavily on interviews and on mapping social and familial connections between inhabitants.

34. I argue that the inhabitants of the housing districts find themselves in a position similar to that of Kracauer's masses vis-á-vis the mass ornament in whose production they participated. Or that it is possible to conceptualize the inhabitants of the housing districts as participating in a Hegelian process of coming to self-consciousness and having, the way Lukács's workers had, a privileged position when it comes to accessing knowledge about the conditions of life that may be most symptomatic of the totality of the particular historical moment. This view would perhaps coincide with some post-Lukácsian (nonclass) subject of history and posits the inhabitants of the housing districts as a new collective identity, not exactly the one these districts were built for, but a collectivity nonetheless.

35. See Reinhold Martin, "Atrocities; or, Curtain Wall as Mass Medium," *Resurfacing Modernism*, *Perspecta 32*, ed. Annmarie Brennan and Brendan D. Moran (2001), 67–75.

36. The wealth and poverty of housing blocks vary. In general, the housing blocks are a socially heterogeneous mix, partly because they were designed to house and engender a politically and socially *homogeneous* working population. Apartments in housing blocks were distributed to workers of various jobs and ranks, usually by their companies and based on their years of employment, need, and merit. Then later, at the end of the 1980s, most of these apartments were bought from the state at a nominal price, only to be bought and sold nowadays at full (and high) market prices. The housing blocks erected in the last decade don't follow the logic of the old state-subsidized housing, because only individuals and families with money can obtain them.

37. The question of media has had a long history among Eastern European dissidents. For example, the Czechoslovakian dissident group Charter 77 was formed (in 1977) as "a loose, informal, and open association of people" resolved to conduct a constructive dialogue ("within its own field of impact") with the political and state authorities, particularly regarding civil and human rights. One of its main concerns was the repressive nature of "official propaganda." The Helsinki Accord of 1975 provided an impetus for the formation of Charter 77 (and of similar groups in other countries of Central and Eastern Europe). Jan Patočka, Václav Havel, and Jiri Hájek were the main spokespeople of Charter 77. The Charter 77 declaration diagnosed "the centralized control of all the communication media and of publishing and cultural institutions" as responsible for the impossibility of open debate in the domains of thought and art. For a reprint of the declaration, see "Charter 77 Declaration," in *Power of the Powerless: Citizens against the State in Central-Eastern Europe*, ed. John Keane (London: Hutchinson, 1985).

38. "Parallel polis" was a concept, first put forth in 1978 by the Czech activist Václav Benda, that powered the imagination of Eastern European dissidents throughout the decade before the collapse of the Berlin Wall. In one of his most important essays, "The Power of the Powerless," Havel discusses the meaning and significance of Benda's parallel polis. See Václav Havel, "The Power of the Powerless," in *Power of the Powerless*.

39. Spectacle is not necessarily defined in the pejorative sense alone as Debord's integrated and pervasive regime of spectacle, which consumes every trace of *civitas*. Although Debord's (and Habermas's) worst fears are spectacle's immanent danger, from Kant to Baudrillard philosophers have also seen it as a necessary condition of every revolution.

40. This is an exaggeration, and although the revolutions of 1989 were all really a process longer than the actual events on the streets of Warsaw, Budapest, Leipzig, or Berlin, the length of the "street occupation" by students and citizens of Belgrade lasted the longest. An eyewitness and chronicler of 1989 events in Eastern Europe, Timothy Garton Ash, tells a story about the length of the 1989 revolutions in *The Magic Lantern*. His statement to Václav Havel: "In Poland it took ten years, in Hungary ten months, in Eastern Germany ten weeks: perhaps in Czechoslovakia it will take ten days!" The statement was immediately repeated for the cameras, and according to Ash it had a fantastic career in Czechoslovak and Polish media. See Timothy Garton Ash, *The Magic Lantern: The Revolution of '89 Witnessed in Warsaw, Budapest, Berlin, and Prague* (New York: Vintage Books, 1993), 78.

→ Block 29.

directly involved the city in an extended exposé on "living within truth."[41] The rebellion was inspired by the state's attempt to fix the outcome of municipal government elections throughout Yugoslavia. Several official attempts at recounting the votes, at repeating the process, unquestionably revealed this effort to hijack the elections. In dissident parlance, "living within truth" has a deep and binding meaning, which, among other things, encompasses an awareness about a government willing to steal votes. The notion of truth here is not metaphysical; it is defined in opposition to a diagnosis of a society living within a lie, of an automatism spread throughout the ordinary people, whose acts maintain the appearance of the Communist system, despite their knowing it is all a hollow facade, a slogan.[42] The moment that the legal truth, the most practical meaning of truth, seemed to be under attack, people claimed their streets simultaneously in several Serbian cities. On November 21, 1996, the first day of the protest in Belgrade, no one anticipated spending the entire winter on the streets. As protesters began "visiting" the organs of government-controlled information—the radio and TV stations and the daily-news headquarters—the regime found ways to block the few independent radio stations from the airwaves. Once radio B 92 began transmitting static into their homes, protesters simply walked to the station.[43] The news was now "broadcast" from the radio station's windows directly onto the streets, as well as live on the Web.

The four-month-long protest's spatial tactics have to be understood in conjunction with its spectacular nature. The effort to expose the surrealism of day-to-day life in Serbia was the motor of the protest, a generator that sustained it for as long as it lasted. Various Serbian writers have seen the protesting tactics of the Belgrade 1996–1997 winter as carnivalistic, and not without reason.[44] Whether we speak of large parading puppets, thrown eggs, deafening citywide noise, performances in front of a police cordon, the "decontamination" of parliament, or waiting curbside during the red crossing light and occupying the street en masse during the green, every concrete micro-event of the protest was a spectacular subversion of power.

Although the stakes were somberly high, the protesters' hopes and techniques were suspended between the sincerity and zeal of May 1968 in Paris and the somewhat incredulous politics of carnival. The students and citizens of Serbia were laughing at the regime and, at times, at themselves and their absurd lives. Situated between recent Eastern European protests and orgiastic carnival, between the world media and the masses themselves, this protest was shaped both by the current status of politics and media in the world and by the flickering confidence of its participants. It was simultaneously buffering future disappointments and it definitively marking a moment of crisis, temporarily suspending (and thus opposing and exposing) the regime's pretense of immutability.

Protest is by definition a representational form.[45] Every "action," as the protesters called their daily activities, arose in direct response to a comment made on the news, thus linking, in a chain of ironic reflection, the government media and the citizens' and students' response. The rigid, predictable official media, with their old rhetoric, were ridiculed on a daily basis. Their most graceful attempts at "airbrushing away" the importance of the protest proved to be those that completely ignored the daily events. Whereas the archival capacity of television-news cameras had produced terror before, when the identification of protesters could be enough to keep them off the streets, the use of cameras by the protesters was now making the protest public. Yearning to see their effect on media, people recorded foreign news (from Canal +, Rai Uno, CNN) and circulated the VHS tapes. Their appearance on TV screens around the world was taken as proof that they were involved in an event of historical importance.

↓ Radio B92 broadcasts live from its windows.

Day by day, the four months of the Belgrade protests added up to a more unified and more self-aware citizenry. The students gathered every day at the same time, equipped with whistles, placards, humor, and energy, picking their route in response to the government actions and statements in the media the day before. At three o'clock the working citizens gathered as well, sometimes joining the students, other times performing their own simultaneous protesting march. There was no exact or premeditated plan for the daily "walks" of the student and citizen protesters. Perhaps having absorbed the intelligence of protests in the early 1990s, the protesting crowd moved from one symbolic political location to another. As soon as the "media route" was established (including a walk past the official radio and TV stations and a cheering visit to the headquarters of radio B92), the protesting crowd moved on to "cover" Belgrade with its presence. Passing through smaller neighborhoods with winding narrow streets sometimes took hours.

On December 24, a pro-Milošević counterprotest was scheduled to take place in the heart of the territory claimed by the citizens and students. Each of the regime's supporters arrived with the same picture of Milošević and with a series of slogans that unmistakably invoked Cold War attitudes. Knowing that if they lost their cool in this situation they would most certainly be defeated and the protest would be over, the student and citizen protesters avoided conflict at all cost. There were three crowds on the square that day: those who protested in order to save their legal electoral right and their dignity as citizens; those who were sent to protest against the first group; and the regime's militia, sent to make order out of chaos. It was a terrifying moment for those whose bodies constituted the protesting crowds. After the counter-meeting the government disallowed "walks," not for the sake of violence but for the sake of traffic management. A police cordon was installed, blocking the passage of protesters and producing an opportunity for a singular response. It is hard to imagine another government move that could have more effectively placed its own power on display. Subjected to the scrutiny of protesters, the armed

41. The concepts of "living within truth" and "living within a lie" are explained in depth in Havel's "Power of the Powerless." To explain the concept of living within a lie, and thus also the possibility of living within truth, Havel tells a story about an anonymous shopkeeper who goes along with the regime's expectation to place a party slogan in his window, thus furthering the regime's image while everyone involved knows that the ideological meaning of the slogan provides only an illusion of identity and that by placing the slogan in his window the shopkeeper participates in the pretense that no one is pretending. Havel finds similar acts quite natural given the situation, hence pretense turns out to be the pervasive mode of being.

42. The Belgrade protesters referred to their activity as "walks," partly because they were constantly in motion but also because the regime reported about the protest in those terms: "a handful of walkers gathered, etc." Even the title of a collection of essays published immediately after the protest reflects the tactical importance of walking; see *Šetnja u mestu / Walking on the Spot: Civil Protest in Serbia, November 17, 1996–March 20, 1997* (Belgrade: Radio B92, 1997).

43. From questions about the role of photography to those about the aesthetic value of the street performances, a whole series of essays in *Walking on the Spot* deals with the spectacular and carnivalistic aspects of the 1996–1997 winter. More recently a special issue of *Reporter*, subtitled "Serbia on the Street," published in April 2000, recapping the past decade of Milošević's rule and struggle against it, dealt with the carnivalistic nature of the 1996–1997 protest as a given. In the meantime, the paper *Republika*, subtitled "The Voice of Citizens' Self-Liberation: Against the Terror of Fear, Hate, and Violence," published a number of articles on the 1996–1997 protest that proposed interpretations of the carnivalistic, humorous, and sometimes frivolous aspects of this event and its political importance. See in particular *Republika*, July 31, 1998.

44. Protest is always addressed to someone; it is a manifestation of an attitude. It can be understood as a representational form not unlike a carnival in its inversions of power. The Russian philosopher and linguist Mikhail Bakhtin has treated the carnival as a representational form in his works on Rabelais and on Dostoyevsky's poetics. Bakhtin's work on carnival involves an analysis of the human relations experienced during carnival, its relation to time, and its representational aspect. See Mikhail Bakhtin, *Rabelais and His World* (Bloomington: Indiana University Press, 1984) and *Problems of Dostoevsky's Poetics* (Minneapolis: University of Minnesota Press, 1984).

45. As the Czech dissidents theorized, and eventually tested, and as the Belgrade protesters learned by trial and error, violent expressions of disagreement with the regime were, in most instances, ineffective, despite generalized romanticization of their impact. Thus an important characteristic of the revolutions of 1989 in Eastern Europe and of the Belgrade 1996–1997 protest was their softness, their nonviolence.

↑ Televizorke—the long bar buildings of Block 28—face a major highway, from which they read as a fast-flicker animation. Based on M. Glavički's 1966 urban plan and on I. Arnautović's architectural solution, Block 28 was realized between 1968 and 1972. These facades managed to maintain a certain freshness. Partly due to the nonchalance with which rounded "television set" openings give way to deeper balconies, individual "improvements" on this building read as vibrant and ingenious additions.

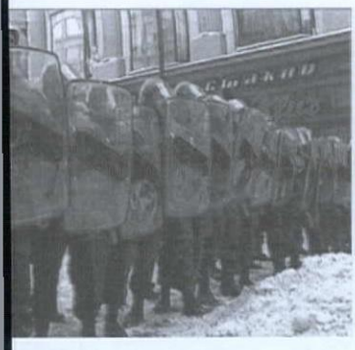
bodies of the line were mutely witnessing the degradation of their own power and of the power they represented. A costumed ball of uniformed protesters combated the official seriousness of the cordon: mirrors were placed in front of them, girls offered their kisses, and performances were held in the street space contained by the cordon. The confrontation of the rigid on one side and the mobile, soft, and amorphous on the other was made apparent.

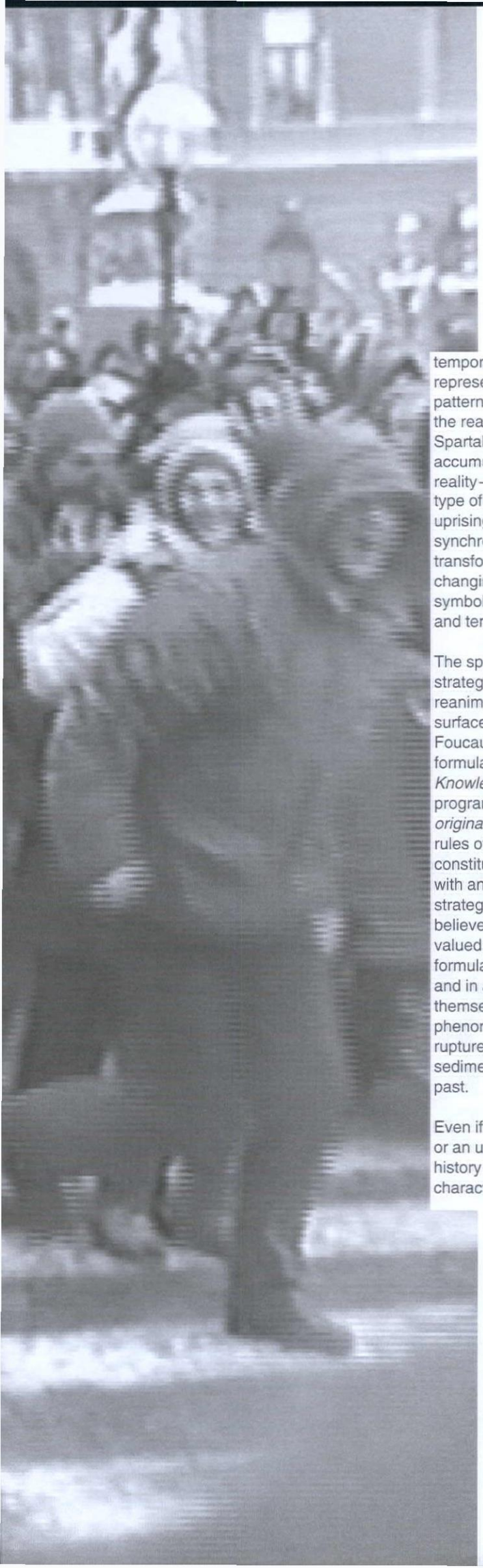
"The ideological-totalitarian class in power is the power of a world turned on its head: the stronger the class, the more powerfully it proclaims that it does not exist, and its strength serves first and foremost to assert its nonexistence."[46] Perhaps no other statement summarizes better what exactly became visible during the Belgrade protest than this aphoristic line from Debord. Although there was little actual discourse on how the protest would contribute to the production of a (even embryonic) public sphere, the scenarios proposed by the Czech dissidents applied. Their own strategy, parallel polis, marked the moment when the rift between reality and its spectacularized representation by the Communist regime threatened to grow unbearably large. There was a frozen image of the public sphere on one side, and parallel to it, the dissidents thought, a vibrant, busy, participatory public forum could rise.

The Belgrade protesters never referred to the concept of parallel polis, but the four months on the streets amounted to a crash course in constructing a public sphere. The production of a *parallel public* during the Belgrade protest was twofold. It involved a phenomenal aspect of belonging to a massive intelligence made up of human bodies. Elias Canetti famously said in his work on crowds: "All demands for justice and all theories of equality ultimately derive their energy from the actual experience of equality familiar to anyone who has been part of a crowd."[47] On the other hand, in order to turn the city into an arena for sustained discussion, the protesting public relied on symbolic communication, on methods properly understood as discursive. They say that people took all kinds of flags to the streets, from Formula One flags, to soccer team flags, to U.S. flags. The slogans on their signs addressed Milošević, but also the foreign media, the police, and the masses themselves. They say that at least one of these boards spelled "I Love Ivana."[48] This type of utterance, of strictly personal content, was instrumentalized through its publicity as a possible general symbol of protest. The protest's slogans, the words yelled out in chorus, and the "actions" were all carriers of fragile, temporary, and constantly shifting meaning. When shared in public, their transformational agility strikingly exposed the rigid fortress of the regime's ideological language.

Process and event: temporal strategies of the visible

The expressions of life in the housing blocks and the protesting masses participated in the production and mediation of knowledge just as zealously as did their original state-representational counterparts (housing estates and parades). The *anti-lobotomy* was performed through a reversal of the





temporal logic of the regime's representational strategies. The temporal pattern of things surfacing into visibility and the reassuring schedule of parades and Spartakiads—whose yearly repetition was accumulating into an unshakable image of reality—were superseded by a different type of mass gathering, a singular event: an uprising, a protest. With time, the static, synchronic total symbol of housing estates transformed into many fragmented, changing, and accumulative stories. Its symbolic totality dispersed both spatially and temporally.

The specific type of temporality of the two strategies of mass communication—reanimation of street and facade surfaces—could be described by Michel Foucault's distinction between two types of formulations in *The Archaeology of Knowledge*, one of his most intensely programmatic texts. In a section on *the original* and *the regular* he formulated the rules of two modalities of discourse, both constituting the history of ideas but each with an entirely different temporal strategy.[49] In other words, Foucault believed that we could distinguish highly valued, rare, and creative formulations from formulations that are ordinary, everyday, and in a way not responsible for themselves. Whereas the first category of phenomena characteristically produces ruptures, the second group is involved in sedimentation, a slow accumulation of the past.

Even if it is possible to understand a protest or an uprising as an event that repeats in history with more or less similar formal characteristics, we have to think of it primarily as a rupture, as a time-out, by definition. Even if it does not turn the current system on its head, a protest (unexpectedly) disrupts the everyday function of a city. Life in the housing districts of Eastern Europe fits within Foucault's definition of the everyday, not premeditated by those who participate in it and not meant to signify something from the outset. Although neither the event of protest nor the housing stock could be said to properly constitute a discourse on its own,[50] I argue that they can both be "read" as what Siegfried Kracauer called "surface expressions of an era."[51] Insofar as they both ultimately contribute to the possibility of a new articulation of a public sphere, there is a provisional link between the two temporal modalities of indexing historical processes: one a slow and accumulative *process* that almost writes itself onto the facades of housing blocks, through the sedimentation of evidence of life; the other an *event* that literally places the masses on the historical stage.

Flares and flickers

The "noise" about the protest managed to circulate around the world. Some things changed in Serbia, but most things stayed the same for a while or, in many cases, got worse. The opposition got its victory back through a legal concession that Milošević called *lex specialis*, a place-holder type of law, a law that refused to admit the victory of the opposition and instead represented a compromise on everyone's part. The opposition was not yet mature enough to handle its victory, and before long the participants themselves saw the 1996–1997 protest in a cynical light. But

↓ Counterprotest. On December 24, tens of thousands were bused to Belgrade from various parts of Serbia. They diligently carried the mass-produced Milošević placards.

46. Debord, *Society of the Spectacle*, 74.

47. Elias Canetti, *Crowds and Power* (New York: Noonday, 1984), 29.

48. Rumor is the prime form of dissemination of knowledge about the protest. Thus it may be enough to speak of what and how rumors signify without a real verification of the events they describe. However, in the case of "I Love Ivana" several (presumably firsthand) accounts were reported in articles about the protest. See Ivan Čolović, "Reading a Handful of Serbian Palms," in *Walking on the Spot*; and Zorica Tomić, "Paradoks šetača," *Republika*, 31 July 1998, 35–38.

49. Foucault's categorization of the regular and the original was not meant to judge the value of these by dividing them into phenomena worth looking at and phenomena that belong to the quagmires of ordinary life. He was equally interested in both. The chapter on the original and the regular is in part 4, "Archaeological Description." See Michel Foucault, *The Archaeology of Knowledge and the Discourse on Language* (New York: Pantheon, 1972).

50. A lot of work has been done, and perhaps many introductions written, claiming that we can regard any practice as a type of discourse in Foucauldian terms. Perhaps the most important study in this vein is Michel de Certeau's *The Practice of Everyday Life*, the thesis of which could easily apply to an investigation of living within housing blocks and to protesting. Thus my thesis on the mediatic capacity of the traces of life in housing blocks exists tenuously between de Certeau's work on everyday practices on one side and their representational aspects on the other. The representational eloquence of everyday life was precisely the focus of Siegfried Kracauer's investigations.

51. The jump from Foucault to Kracauer here is an attempt to drag into the field of architectural discourse phenomena that both in their everyday ordinariness and in their historical singularity attest to life and not to the state of formal aesthetic practices directly. Insofar as housing or protest can be seen as evidence of life, we are responsible to theorize them, partly because they involve the use of (not to say usefulness of) the concrete products of the architectural discipline and partly because of those reasons that compel a person with a camera to film when faced with extraordinary life events. One could easily argue that the Frankfurt School philosophers, and certainly Benjamin and Kracauer (never officially part of the group), as well as Foucault, three decades later, were interested in deciphering aspects of the appearance of the everyday. *Surface expressions of an era* were considered well suited for giving us access to otherwise invisible phenomena.

52. This is not to say that May 1968 is suddenly less important than the Eastern European uprisings but to state their difference. Admittedly, I want to claim importance for the Eastern European uprisings, which engaged the city as much as May 1968 did but have not entered architectural discourse at all.

53. This attitude is often referred to as the politics of antipolitics.

54. In a lecture on the ideas of 1989 at the London School of Economics in 1999, Mary Kaldor spoke of the method of the revolutions across the Eastern bloc. Although some have assessed the events of 1989 as bereft of new ideas, according to Kaldor even Timothy Garton Ash revised his initial reaction regarding the lack of new ideas, locating them in the method, the "how" not the "what," of these revolutions. Similarly, a writer from Belgrade, Nenad Dimitrijević, discussed the morality of the discourse embodied in the Belgrade 1996–1997 protest and present in the discourse surrounding the concept of "parallel polis." By "morality" Dimitrijević meant the practical parameters of these discourses; that is, ethics here refers to the formal organization of the discourse. See Nenad Dimitrijević, "What Language Will We Be Speaking after the Bombs Stop Falling?" *Reč* 55, 1 (Oct. 1999), 15–23.

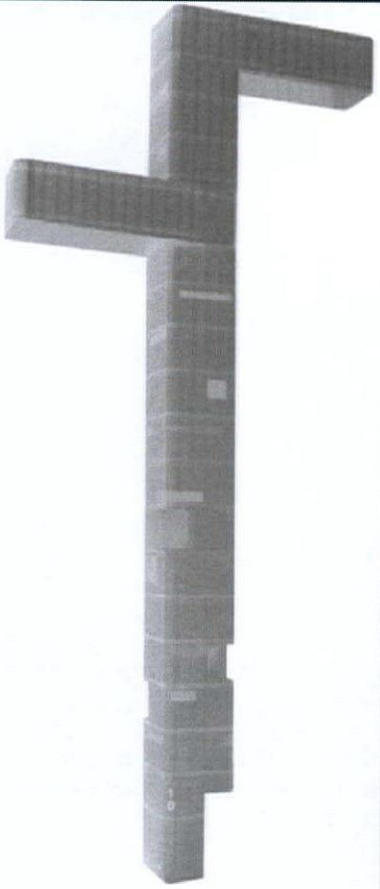
↓ Tension built as the three constituencies crowded Republic Square on December 24. Still, the anticipation of violence was only occasionally crowned with small outbursts of it.

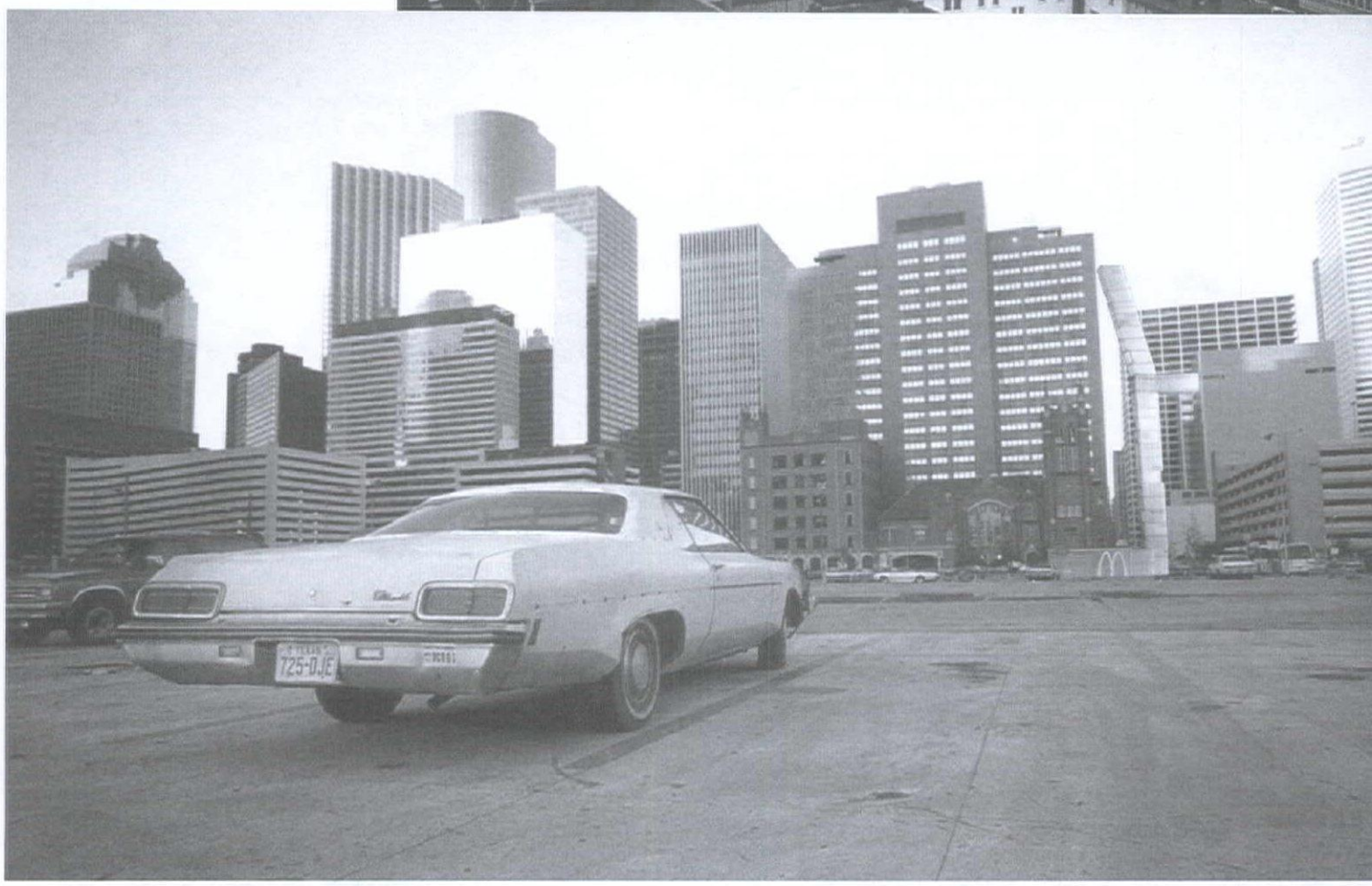
← Since the police forces were ordered to defend the "normal circulation of traffic" in Belgrade, citizens gathered at the crosswalk, "taking" the streets only during the green light.

their extraordinary experience was not worthless. It was the first real formulation of demands for democracy and as such the largest step made toward the possibility of a parallel discourse. If it were not for the 1996–1997 protest, the protest in October 2000 would never have been possible. The city's design for containing the masses enabled the crowd to produce physical pressure. But if we believe that every instance of exposing the real conditions of life in the Communist system made protesting possible, then the housing blocks that surround the center, representing life "as it is" to their inhabitants, are at least as important as the squares on which the masses gathered. In a certain way, both protesting and housing produce a sense of belonging to an intelligence larger than any single unit, a sense of citizenship, without which it would be impossible to act politically.

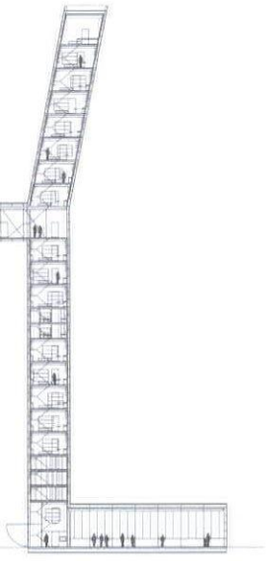
A year after the Hungarian uprising of 1956, Hannah Arendt spoke of the flaming light of that revolution as an expression of freedom, specifically the freedom that resides in the human capacity for action. It was already obvious to Arendt that not every subsequent light would shine as bright as 1956; in fact, she admitted that even 1956 flared and flickered. The unsteadiness of the Hungarian fight for freedom, however, did not diminish its importance. A protest fails only if it goes unnoticed and unacknowledged. But if in some way it seeps through the mechanisms of rigid and soft subversion and enters the consciousness of a city and a people, then it has succeeded. Action in the sense that Arendt meant it, political action, requires an effort, even a risk, and can be conceived only within a particular historical context. The uprising of 1956 in Hungary and of 1957 in Poland, the Prague Spring of 1968, the Solidarity outbursts in 1980, the events of 1989, and the Belgrade protests (starting in 1991 and culminating in 2000) encouraged a fundamental reconsideration of the political.[52] The dissidents repeatedly claimed the insignificance of any particular political orientation and of institutionalized politics in general and concentrated on human dignity, the practice of freedom, and consensus as the most political concerns of all. [53] The *antipolitics* they practiced and advocated was reactionary, a type of oppositional attitude, without a formal political program, but rather with an ethical program, and with methods for creating a public sphere parallel to the governmental organs for distribution and control of information.[54]

In Belgrade in the late 1990s the cultural marginality of the expressions of life in the housing blocks and the lack of a coherent discourse about the protest (at the time of the events) ensured that these phenomena maintained an unmediated relationship to the conditions from which they emerged. The images produced by everyday life, simply left to themselves, and the more willful articulations of mass dissatisfaction reversed the logic of the regime's representational strategies, ensuring that the surface of appearances in the late 1990s would have a significant political function. Once it was possible to *see* the logic of lobotomized representation on the massive scale of Milošević's media, one could begin deciphering the era and, eventually, everyone's participation in it.





31 HOH, FROM 0 TO 26280 HOURS CERO9 APRIL 2000



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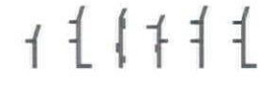


HOH, FROM 0 TO 26280 HOURS: A HOMELESS CIVILIZATION
By Cero9: Cristina Díaz Moreno, Efrén García Grinda, and collaborator Miguel Paredes

hOHs (*habitaciones de ocupación por horas*, or "homes by the hour") is a project about the possibility of establishing a new time-based relationship with one's home.

hOHs are flexible programmed units extruded along slender towers: a low-priced domestic space that can be built in the center of any city and occupied for a few hours or permanently.

hOHs are not complete buildings. The "fragments" lack meaning on their own. They become meaningful only when they are introduced into a dense urban landscape. Their slenderness and small footprint minimize their connection to the ground and land prices, allowing low-cost habitation in locations of maximum density and activity.

hOHs are built with high-strength rigid systems that use their surroundings for support by attaching to existing facades, cutting through floor plates, and embedding themselves in adjacent buildings.

hOH is a system that hosts a variety of programs—single-unit home, conventional hotel, storage unit, shower, Laundromat, restroom, or commercial space—depending on the intrinsic characteristics of a given site. Variables like the distance to the urban ground and available connections to existing buildings determine the frequency and placement of programs within the unit.

The composition, appearance, and color of the multilayered enclosures are reconfigured depending on climate and orientation. Seven elements (supports in contact with the ground; escolex tying the structure to the surrounding buildings; "backpacks," local floor-level extensions; two types of "heads," inclined or not; and shafts of variable length) constitute a unique system that generates different identities for each location.

hOHs, much like SROs or pensions of the past, constitute residential limbos, incubators for anomalous forms of inhabiting our urban centers.

Translation: Marcos Díaz Gonzalez and Mary Sack

Dawn Finley / Mark Wamble

Notes on System Form: The Rest of the World Exists

To suggest architectural design excellence begins and ends with matters of fabrication would diminish architecture as an effective force of enlightenment and change. Likewise, to marginalize issues of fabrication as merely technical would limit the level at which buildings of complexity are treated.[1]

What follows is a discussion about the relationship between design and fabrication, and how one might format the two to produce buildings of true complexity. This relationship is one component of a larger material cycle where a sustained philosophy of resource and use can be envisioned. While this discussion focuses on relationships pertaining to the design and fabrication of buildings, the implications are far-reaching.

The term "system form" describes an encapsulation of routines and protocols established on a project-to-project basis and shared by those participating in the fabrication and implementation of the design. System form is provisional, because routines and protocols vary from project to project and team to team. A project's contingencies dictate the prevailing system form.[2] Just as the people and agreements between parties develop, system form evolves over the course of the project. Nothing remains constant, not even the initial objective for building. No force dominates another without compromising quality. Every step is a negotiation.

System form acknowledges that procedural issues are worthy of examination at the theoretical level. With industry and manufacturing, the development of system form is largely a matter of repetition, or of the frequency with which the commodity is produced. Whether this commodity can be standardized, accessorized, or customized depends on the fitness of system form. Do the centers for decision making, tracking features, and control points allow for a range of options without compromising quality? Or has the system form been distributed, allowing each operation to become a creative point in the system, determining quality and variability at every center? At what level can a repetitive process give way to iterative acts? What aspects of manufacturing can be transformed, and to what degree? What does the system require to evolve?

In architecture, as in industry, the relationship between system form and repetition is important. For architecture, however, frequency is substantially reduced. Instead of producing multiple products per day, architects often work on a single, almost always custom project for years. Additionally, contractual obligations often mandate that all design halt prior to fabrication. Changes in fabrication are then construed as mistakes, and penalties are assessed in the form of lost time, added cost, or both. With the relationship between design and fabrication at odds, quality becomes a liability few can afford. Is it possible to use a study in system form to address quality in architectural fabrication without losing the ability to customize? What approach to system form might give rise to repetition in process and to what end? What system form would extend creative design into the fabrication phase without compromising progress or quality? Is computation in relation to fabrication an *enabling technology* architecture has yet to embrace?

Transforming the technical relationship between design and fabrication transforms the material result. By deploying computation to organize routines and protocols, it is possible to effect change in architecture through simultaneous design and fabrication in a repetitive, serial, or iterative fashion. By developing a proficiency in system form, design and fabrication can evolve to

1. In filmmaking a treatment is a way to develop a dialogue script from another written source—usually a novel or short story—for the purposes of adaptation to film. Content in the case of a treatment is changed because the form language of the movie is different from the form language of the novel. However, the original is not changed in plot, outcome, sequence, story line, character cast, etc. Only the dictates of the change to film format precipitate legitimate changes in the film content. For the original author the treatment should be viewed as a technical achievement and little more. Of course, this is impossible. By virtue of the medium change the treatment also constitutes a content change, and therefore is a creative act. In architecture there is no such thing as a purely technical act without a creative dimension. There is, however, a technical treatment.

2. In *The Savage Mind*, Claude Lévi-Strauss describes contingency in relation to creative acts as both an encounter with an obstacle—something needing a creative resolution—and an opportunity to engineer or assemble a solution. It is contingency that precipitates invention. For structural anthropologists like Lévi-Strauss, contingency was systematically categorized. If a system evolves that allows contingency to remain open and in play, creative acts will be enabled throughout the life of a material process.

promote innovation in architecture. In addressing technical issues relating to production, issues of design excellence are repositioned, if not altered fundamentally.

System form is gauged by the following:
Continuous Legibility Because we regard every object as a notation of something else, when we look around us we are observing systems at work.

Operative Intuition Observing the systems to which objects and actions belong creates a default sensibility. This sensibility evolves through practice rather than instruction. Because intuition formats and tempers response, it is not passive; instead, it constitutes a system-altering force through the development of plausible scenarios.

System Aspects Objects and actions are understood through the aspects they possess. These aspects are in a constant state of change.

Aspect Mutability As design and production merge, iterative morphologies are achieved through the modification of system aspects. Aspects of a system are transformed by identifying the driving forces that affect their development.[3] Change occurs incrementally, within a limited range.

System form is not specific to industry or architecture; it can be witnessed at any moment, in almost any place. When we encounter a logo or product mark, we encounter system form. Every time we follow directions to an unfamiliar destination, order food from a menu, file income taxes, or withdraw cash from a bank, we engage system form.

In John Sturges's *The Great Escape* (1963), James Garner plays a captured American air force officer named Hendley. He first appears on screen exiting a prison transport, walking slowly toward a clearing inside a barbed-wire fence with other captured soldiers. Hendley grins, looks up intently, and gauges the position of the watchtowers, assessing the layout of the prison yard. As he surveys the detail of his new surroundings, his role in the film is foretold. Hendley has a unique talent; he is a scrounger. As the Scrounger, Hendley acquires supplies and implements out of thin air. Now he must deploy his skill from within the walls of an enemy prison camp in an elaborate plot to escape. In this role, Garner's character challenges the definition of heroism held by movie audiences of the late 1950s and early 1960s. While his role remains essential to the escape effort for which the movie is titled, Hendley stands out among the other character types familiar to this World War II movie genre. In order for Hendley to be successful, he must be resourceful, coercive, even ruthless. He must observe the elements around him and comprehend the processes by which those elements have become situated as they are (continuous legibility). He must pinpoint the operative systems and appreciate the consequences of this reading. For Hendley, every dimension, alignment, and position within and beyond the barbed-wire fence of the prison yard will factor into a range of plausible scenarios through which the elements will make sense (operative intuition). Every observation will either fit into his mental blueprint or precipitate an alternative set of relationships that could unfold over time (system aspects). Hendley must merge with the environment he has entered, effect change within it to his own ends, and prepare a way for evidence of his work to blend with the system (aspect mutability). Any fault in the analysis will mean disaster. In the end only one schematic will emerge.

Garner's performance as the Scrounger is unmatched. Although the other British officers are amazed by the Scrounger's ability, Hendley is marginalized. The success of the escape effort, which will attempt to scatter two to three hundred prisoners throughout Germany, depends on his skill. Even so, ranking British officers prefer not to know the details of his work, not because they question Hendley's purpose or duty but because the means by which someone of his skill must go about an assignment is without protocol. And though it is, as the British group captain explains to his German prison officer, "the sworn duty of every officer to try to escape, and if not to escape, to try to cause as much trouble to the enemy as possible," a cultural breach persists between what the British officers consider acceptable trouble and what they regard as behavior unbecoming to an officer, adverse conditions notwithstanding.

For the duration of the movie we are given no details about Hendley's past. There appears to be no sordid motivation for his unique contribution to the escape effort. Sturges makes no excuse for Hendley's part. He wants the audience to see him apply his talent to the effort, just as any officer's duty is always to attempt escape. We are invited to accept his morality, and his methods, in stride. Hendley transforms Yankee ingenuity into a contemporary

3. Lawrence Wilkinson of Global Business Network has developed a way of dealing with uncertainty in business. The need to conduct business transactions that may have devastating consequences in the future often paralyzes business leaders. The future is certain, but what it carries is not. Nevertheless, actions have to be taken today that will play out in uncertain ways tomorrow. Through scenario planning, plausible futures can be mapped out so that as features of a future begin to play out, relationships that would follow from that future can be avoided if they are detrimental, or pursued if they are desirable.








awareness of how one reads one's surroundings, adapts, and improvises.

Armed with nothing more than cigarettes, candy bars, and the character's seamless charm, Garner animates the keen abilities of the Scrounger with cool and deliberate ease. As he locates and smuggles photographic equipment, personal identification documents, picks and shovels, and even a can of condensed milk as a gesture of kindness to his English bunk mate, it is hard not to wonder what Hendley did before the war. The condensed milk, meant to remind his friend of home by humanizing an otherwise miserable life behind barbed wire and watchtowers, instills an everyday quality to Garner's character. We ask: Is Hendley's skill one of a military agent practicing trained maneuvers, utilizing deceit as a weapon? Or is he simply reverting to civilian modes perfected back home at lunch counters, bars, and boardrooms.

In one scene we see Hendley enter his prison quarters. Blythe, his bunk mate, has already unpacked his meager belongings and left the room. As Hendley examines the contents of Blythe's locker, finding a combination pocketknife, a bird-watcher's guide, a drawing kit, and binoculars, his bunk mate returns:

"You're the Scrounger," Blythe observes.

"Yes, that's right."

"I'll need a camera," Blythe explains in a matter-of-fact tone.

"What kind?" Hendley asks blandly.

"A 35-mm F 2.8 with a focal plane shutter should do all right." Blythe rattles off his order.

"All right."

"And film of course," adds Blythe.

"Oh, of course," Hendley affirms, unshaken by the extent of Blythe's request.

The door opens and Danny (Charles Bronson) appears as if in a hurry. He looks at Hendley and, in a heavy Polish accent, interrupts:

"I need a pick. A big heavy one." Danny holds his hands apart to emphasize the dimension.

"Only one?" Hendley asks.

Danny shrugs his shoulders. "Two would be better." The door closes as quickly as it opened. Danny has left.

Blythe picks up the conversation again, staring down at his tin cup:

"Afraid this tea's pathetic. Must have used these wretched leaves about twenty times. It's not *that* I mind so much. Tea without cream is so uncivilized."

"Yeah." Hendley looks at him, amused. Deciding not to say what is really on his mind, he changes the subject:

"I'll go gather wood." Hendley walks out.

Blythe, preoccupied with his makeshift teapot, ignores him and turns to study the contents of his cup.

← *The Great Escape*, John Sturges, 1969

Seconds later the door reopens. A can of condensed milk appears first as the door swings wider. Hendley's face appears next, jaw pressed open to steady a pile of wood for the stove. The expression on his face divulges nothing. He goes about his business matter-of-factly. Blythe looks up, not sure if he should believe his eyes, and says:

"Oh. Splendid." He pours the milk.

Then, as if it had not occurred to him to ask, Hendley says, "Blythe, what are you doing here?"

"Hmm? Oh. I'm in Photographic Aerial Reconnaissance Interpretation. Went for a joyride to see for myself. It's my own silly fault. The aircraft bought it."

Hendley's expression begs for clarification.

"Got shot down," Blythe continues. "Terrifying."

"No." Hendley shakes his head. "No, I mean what do you *do* here?"

"Here?" Blythe asks, looking up at Hendley. "Oh. I'm the Forger."

The Unit Interval

It is often said that architects *utilize* or compose spaces and elements to a desired end; with system form we *deploy* systems containing material and spatial qualities. The term "unit interval" defines a critical object or action of a project's operative system that influences system form. With the unit interval as a building block, we deploy both the material component and the processes that yield it. The processes include the given conditions and procedures of the project and extend to the proactive steps taken early in design, such as site assessment, utility integration, methods of finance, distribution of work, and protocols for decision making. These elements, always present to one degree or another in any approach to architecture, are components of system form encountered in a repetitive, serial, and iterative way.

While both industrial systems design and architecture use repetition to produce form, architecture relies less on repetition to animate system form. Repetitive procedures in industrial production are operational; through repetition, form becomes animated and disseminated. Eventually routines are determined, named, and entered into a critical path or systems matrix. The larger system form is then broken into smaller divisions, and individual processes are identified for refinement. Distinctions emerge due to specialization, and barriers are erected through departmental languages and tools. The system's malleable form is partitioned, lost as a vital and operative mode of performance, leaving an appendix to the systems manual as the only overview of all its component parts. Even the most advanced and flexible organizations—whether characterized as flat or hierarchical, self-organizing or hyper-focused—eventually fall prey to routine and sanctioned approaches to flexibility, never appreciating the magnitude of this organizational contradiction.

In architecture the importance of repetition is somewhat marginalized, due in large part to its symbolic power and the manner in which it is used. Philosophically, the idea of repetition seems to owe too much to either outmoded industrialized practices where mass production falls out of step with emerging economies of customization or stylistic biases operating linguistically.

In conventional design *direct repetition* is simply the duplication in an additive fashion of some element, module, or integer, where nothing more than a single aspect of the original integer (its position) is changed from the first repeat to the last. In *serial morphology* an original repeat establishes the formal choices that follow, and multiple aspects of the repeat change over the course of its implementation. The original is transformed within a set of pre-established, quasi-variable aspects. Through a system of programmed change, mathematical variations affecting quantity, proportion, and spacing create spatial and material effects that

appear far more complex than they really are. *Iterative morphologies* are of the same qualitative disposition as repetitive and serial morphologies; they dictate that not one, and not several, but all knowable and controllable aspects of the module vary from repeat to repeat. Producing a truly iterative morphology is easier said than done. In order to appreciate the difference between the serial and the iterative morphology, one has to eliminate the idea of a preestablished variable and evolve a system of feedback and response that is exercised continuously, in real time, and in actual material.

The unit interval is developed with great frequency in architectures evolved through system form, especially those utilizing iterative morphologies. Each element is part of a developing material and spatial circuit. From inception to execution, the *next* material or spatial result develops from the one that came immediately before it. With a coordinated system form this will happen every time a material is applied to a structure. Factoring in the speed and ease of computation-based systems common to the building and design disciplines, it is possible to create a unique material and spatial circuit for every element in a building. This is the idealized consequence of a truly iterative morphology conceived and executed in the field in real time.

Aspect Treatment

System form in industrial systems design develops through repetitive, serial, and iterative operations that animate the system. Goods and services are customized for consumption only to the extent that the system form remains transparent, available to manipulation, and where variations on sanctioned processes are not viewed as detrimental. Which factors precipitate and merit variations, and how variations occur, are the most critical questions pertaining to industrial production. The most formidable impediment to customization is often the system itself. As new production models evolve, customization will likely define advances in twenty-first-century industry.

In architecture the challenge is different. Architectural production occurs at different scales of time and material than industrial production. Customization, in a limited sense of the word, is often a foregone conclusion. Repetitive, serial, and iterative morphologies are too often studied as matters of appearance rather than process. Buildings become representations of complexity rather than results of complex integrated procedures. Architects select a morphology out of conviction rather than allowing one to evolve through the mobilization of critical aspects. The central issues are the integration of design and production where customization is vital—as ideas evidenced in material. When and how custom production occurs—and to what end—will likely define architecture in the early stages of the twenty-first century. System form is a means to design empirically, using the production cycle as a real-time material and spatial interaction.

As design and production merge, iterative morphologies become attainable through the treatment of aspects:

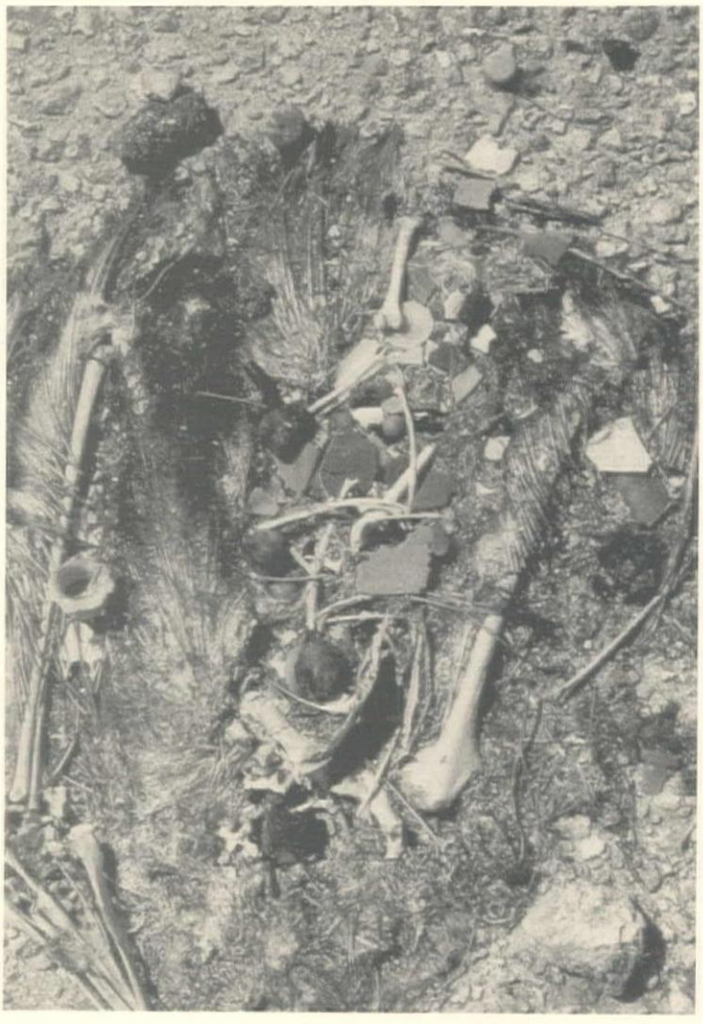
Polar Bear in Landfill

Geography. Aspects engaged according to the conditions of locale are geographic to the extent that they can be treated without deploying local forces at the expense of remote forces. The same is true in reverse. Aspects pertaining to geography are transformed by adaptation, for example, to alter a system's relation to geography. Other driving forces include cohabitation, migration, infiltration, domination, squatting, and homesteading.

The system form contains aspects of geography relating to degrees of invasion. A research party establishes a base camp in the indigenous hunting ground of Alaskan polar bears. Tagging and tracking of the bears precipitate new relationships between the research party and the bear population. The refuse left behind by the party interrupts the hunting and feeding patterns of the polar bear population. Existing hunting patterns are abandoned for food sources found in rubbish heaps. The indigenous bear populations become the invading force. The bear population abandons its traditional hunting cycle when the rubbish heaps are unattended. The research party engaged a local territory with little regard for the ramifications of these actions. A new system form evolved with precarious, if not dangerous results. Adaptation may become a stopgap remedy, but not without long-term consequences, such as the removal of the indigenous species through relocation or more extreme measures.

Girl in Grocery Store
Economy. Aspects engaged according to the conditions of capital are economic to the extent that they can be treated without deploying profit at the expense of other market variables, including wages, production costs, raw-material costs, or overhead. The same is true in reverse. Aspects pertaining to economy are transformed by growth, for example, to alter a system's relation to economy. Other driving forces include profit distribution, provision of services, net accumulation, importation versus exportation, and interest rates.

The system form contains aspects of economy relating to degrees of market access. Consumer products are displayed according to variables (the dimension of the shelving, the age-group targeted as most susceptible to the product's persuasive packaging). The layout of the store is determined by the proximity of one target product to others aimed at the same market profile. The consumer determines the organization of the display as much as the consortium of marketing experts representing the companies that produce the marketable goods. The more a consumer is aware of the effect produced by his participation in the market, the more the economy of the market evolves in accordance with all the objectives in play.



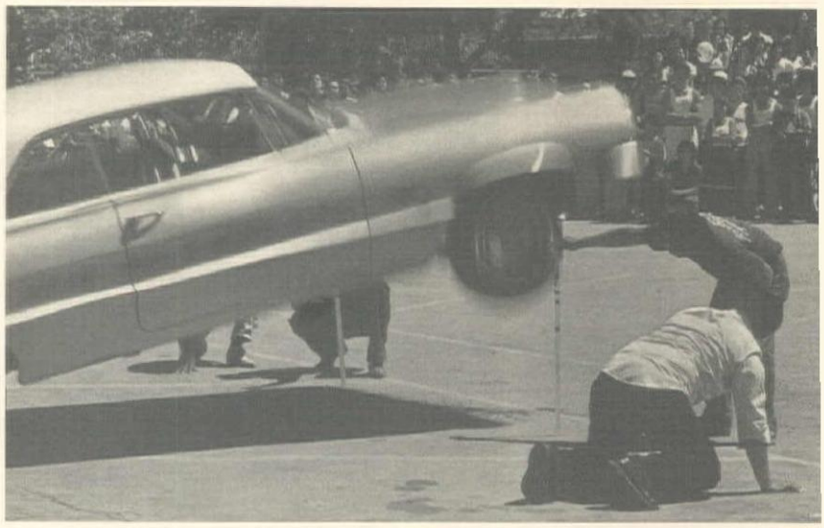
Remains of Albatross with Undigested Plastic Fragments
Biology. Aspects engaged according to the conditions of growth are biological to the extent that they can be treated without deploying transformation at the expense of habitat. The same is true in reverse. Aspects of biology utilize transformation, for example, to alter patterns related to survival. Other driving forces include hybridization, environment, climate, disease, food supply, and genetics.

The system form contains aspects of biology relating to migration and the pursuit of an evaporating food supply. The decomposing body of an albatross reveals fragments of brightly colored plastic consumed over the course of a life spent outside its natural habitat. While it is not known if this particular bird's demise is directly attributed to the processed materials, the natural and the man-made world commingled for an extended time both within and around the specimen. While the fringes of both a fit and a lethal environment are found in the remains of the albatross, time will tell if aspects of these systems will mutate in a mutually beneficial manner.

Measuring the Spring Height of a Low Rider

Work. Aspects engaged according to the conditions of lifestyle are dimensions of work to the extent that they can be treated without deploying compensation at the expense of learning. The same is true in reverse. Aspects of work utilize exposure to new challenges, for example, to compensate employees with the benefit of experience. Other driving forces include retirement savings, monetary compensation, personal achievement, shared community, advancement, and pleasure.

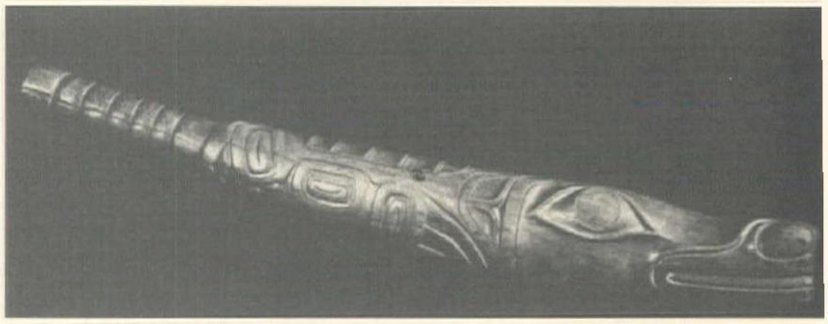
The system form contains aspects of work relating to instructive behavior, applications of shared information, human and material engagement, provisional expertise, etc. As the competition to achieve the greatest sustained bounce continues, subtlety and nuance begin to influence the judging. While the rules for the competition are clear, the urge to press the limits of the contest changes the basis of the competition. Maneuvers and equipment previously excluded begin to reemerge as acceptable embellishments of a routine. The last competitor will always strive to be the first to initiate a breakthrough in the rules.



Tlingit Club for Hunting Fish

Technology. Aspects engaged according to the conditions of innovation are technological to the extent that they can be treated without deploying technique at the expense of quality and useful application. The same is true in reverse. Aspects of technology utilize speed, for example, to motivate and propel advances in a given field of research. Other driving forces include flexibility, precision, efficiency, and reliability.

The system form contains aspects of technology relating to available material resources, dimension, handling, durability, shape, and use. To indigenous cultures the Tlingit club represents meaningful improvements in tools used for hunting fish. Aspects treated here include the direction and density of the wood grain, the tools used to shape the wood, and the image of a ferocious beast on the shaft and head of the club to inform the owner of its purpose. According to Claude Lévi-Strauss in *The Science of the Concrete*, each of these decisions represents a way of dealing with the contingencies encountered by the craftsman. Some contingencies were idealized, caused by concerns about what should be made in order to gather fish. Others were practical, encountered during the process of making the implement. Contingencies concerning the purpose and value of the club were addressed through the representational image of the beast.



"Hand Catching Lead"—Richard Serra, 1969

Duration. Aspects engaged according to the conditions of change are temporal to the extent that they can be treated without deploying difference at the expense of an evolved transformation. The same is true in reverse. Aspects pertaining to duration are transformed by techniques of framing and sequencing, for example, to alter a system's relation to elapsed time. Other driving forces include acceleration, deceleration, narrative, relativity, interval, and mechanical and biological time.

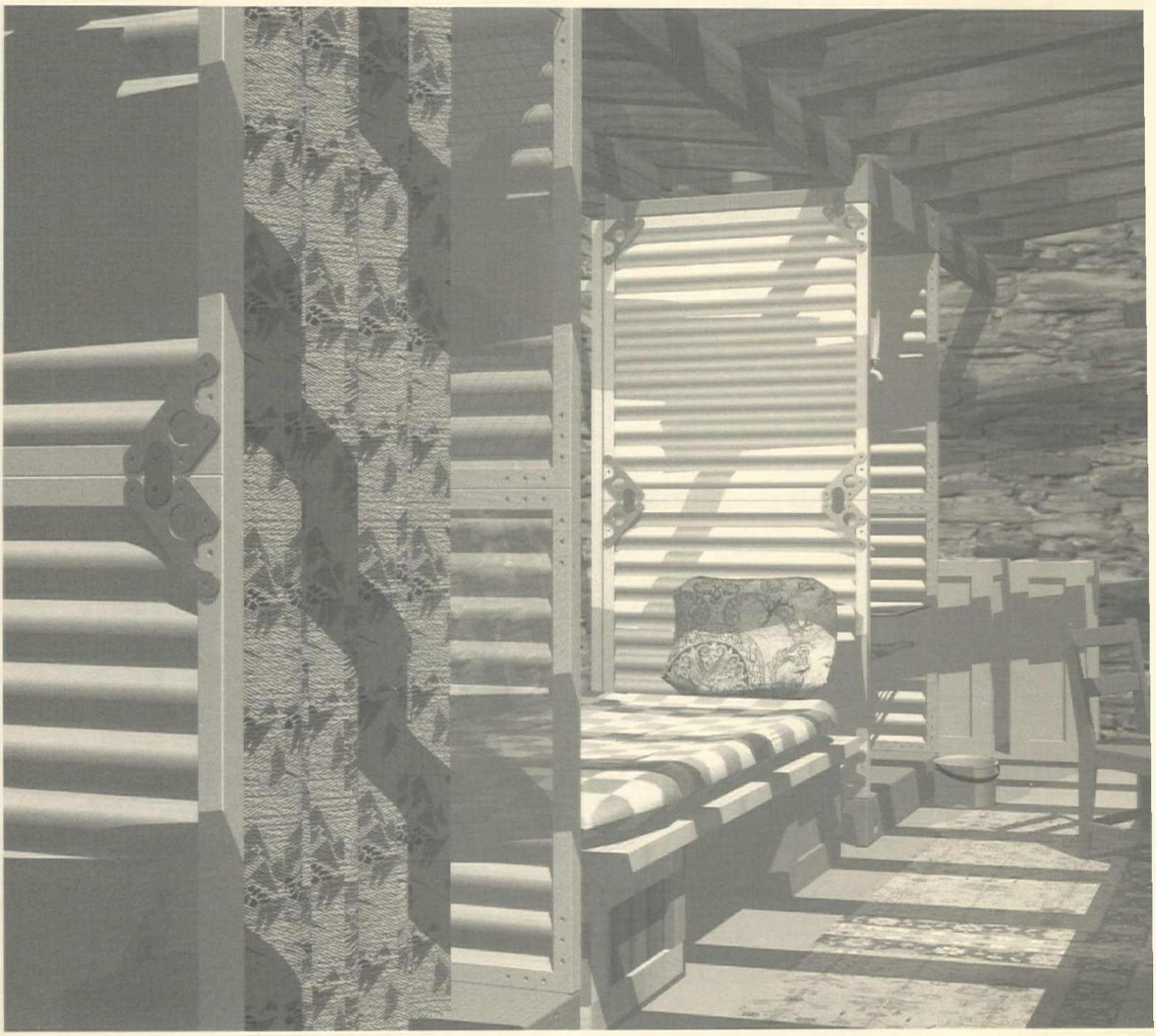
The system form contains aspects of duration relating to degrees of relative change. *Hand Catching Lead* shows a hand centered in the movie frame. The hand is dirtied with a dark residue. The background is white. At steady intervals, pieces of lead sheet are dropped from above while the hand attempts to catch them. Occasionally the hand will make contact, but the lead bounces free. A finger will cause the lead fragment to spin out of the frame, or linger just a fraction of a second longer before it disappears to the left or to the right or toward the camera. When the conditions are right, the hand will grasp the lead and jerk down ever so slightly as the momentum of the heavy material catches the body off guard at the other end of the outstretched arm. The hand immediately casts the lead fragment aside and resumes its pursuit of the next piece. The aspect of time is treated through repetition: the uniformity of a fixed format juxtaposed with moments where the uniformity is broken, the abstraction of the body through reflex when the hand catches the lead. Only at these moments do we see evidence of the body counterweight and recall the elapsed time between successful attempts to catch the piece of lead.

"Drawing from Dirt"—Michael Heizer

Movement. Aspects engaged according to the conditions of distance are movement based to the extent that they can be treated without deploying sequence at the expense of elapsed time. The same is true in reverse. Aspects pertaining to movement are transformed by techniques of tracing, for example, to alter a system's relation to movement. Other driving forces include displacement, energy, friction, settlement, gravity, internal and external force, and momentum.

The system form contains aspects of movement relating to repetition and program. Vehicles are used to create a work of art by transporting and distributing dirt onto a desert canvas. The vehicles follow planned and unplanned routes relating to the duration of the vehicle path, to the amount of dirt the vehicle carries, to the distance it will travel to and from the dirt source before running out, and to the relationship between the vehicles simultaneously transporting dirt. What results is a signification, or perhaps more precisely an index, of actions that contain within them clues to what has transpired. As the artwork occurs in time and space, feedback and response become factors, whereby the end result becomes as much a matter of program in relation to vehicle choice and payload capacity as an epigenetic phenomenon. The results of a previous action are factored into the field, thereby conditioning the manner in which the next action will transpire.

Unhampered by the red tape of nation-state, embodying her own cultural identity and stowing its accessories in a carry-on bag, the modern nomad wandered out of the romantic landscape of Goethe's *Young Werther* and into the propertyless states of work and leisure of the bucolic Radiant City before descending into the global network.



Displacement: The Realpolitik of Utopia

Deborah Gans and Matt Jelacic

We encountered her, perhaps for the last time, in a recent design competition sponsored by Alessi, who was looking to furnish those perpetually on the move. We designed her a utility belt for personal tools and a portable computer station, both of which would now fail to make it through airport metal detectors. Detained in the airport lounge since September 11—or perhaps since the most recent global summit—she sits and contemplates the flow of capital as it passes by, siphoning off resources in its wake and forcibly pushing people along with it. By now we are all familiar with Deleuze and Guattari's depiction of nomadology, which sets up two moments: the state asserting its authority through the "striated" spatial grids of power and the nomad using a war machine to expand its "smooth" territory. The tribe left out of this Nietzschean dualism of conquest is the displaced who would not choose to be either nomadic or stationary in their given circumstance.

The subject-clients of this article are those displaced, the doppelgängers of Alessi's urban nomad, the other product of post–Cold War geopolitics, inhabiting a society of scarcity beneath our cultures of abundance. Whether the result of internecine struggle, foreign war, famine, or mass unemployment, their displacement has a root cause in patterns of investment that date from the Cold War superpowers' aid to contested territories—such as continuously destabilized Afghanistan—and exist today in public and privatized form.[1] Neither foreign powers seeking control over natural resources nor foreign companies interested in a "cash crop" production like sneakers have tended to invest in the infrastructure or future of their host nation, with the consequence of underdevelopment and displacement more often than the showcase success of towns like Hyderabad, India. One typical pattern of migration in relation to investment begins with the move of subsistence farmers to the local city in pursuit of the new jobs, and then to the world city-at-large when the jobs disappear as foreign investment moves on. The accrued mass of individual movement has large consequences, such as the reduced agricultural production and environmental degradation of abandoned land and the overstressed physical and social infrastructure of rapidly expanding cities. Competition for increasingly scarce rural and urban resources and for political control over them can then fuel the strife that leads to ethnic struggle, regional war, and mass displacement. In its drive to expand and its ability to do so without sovereign limits, capital spurs these related human displacements: de-ruralization, migration, emigration, and flight.[2]

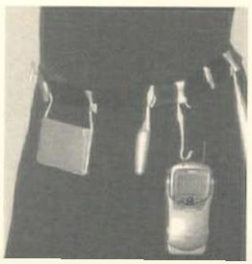
As quantified by the United Nations, the number of people subject to scenarios of displacement is vast—1 in every 297 persons on this planet, including a new category officially recognized by the UN, the internally displaced person (IDP), who is forced from home but not region or country. There are at least 25 million refugees, the population equivalent to double the world's largest metropolis. The imagined specter of such a vast urban receptacle for the dispossessed haunts an understanding of the real impacts of displacement on existing cities. As they wane with attack, wax through immigration, or emerge suddenly in the debased form of the refugee camp,

1. For an analysis of Cold War politics, see Roberta Cohen and Francis Deng, *Masses in Flight* (Washington, D.C.: Brookings Institute Press, 1998), 1–5.

2. Immanuel Wallerstein, *The End of the World as We Know It* (Minneapolis: University of Minnesota Press, 1999), 81. Also see Saskia Sassen, *Globalization and Its Discontents: Essays on the New Mobility of People and Money* (New York: New Press, 1998).

↑ Interior perspective of a unit inserted into house ruins, where it acts as the service core, structural support, and scaffold for the construction of a larger dwelling.

→ Utility belt for Alessi.



cities register the phenomenon of displacement, and displacement describes the temporality and permanence of cities. Any strategy for housing the displaced ultimately must envision the new or recuperated urban culture.

The current architectures/urbanisms of displacement: the camp

The dominant architecture of displacement, the refugee camp, seems a dark legacy of an International Style of military operations unaffected by all our postmodern lessons regarding the disruption of regions, cultural memory, and patterns of daily life. There are still few alternatives to the economies and apparent rationality of blue tarp tents arranged *cartus* and *decumana* in relation to group latrines and delivery routes, a plan that dates from nineteenth-century military manuals that in turn modeled themselves quite self-consciously on Caesar.[3] This arrangement expedites both the surveying and the surveillance of the camp. It offers effective protection from military attack and epidemic. The blue tarp is extremely cheap and tough—tougher than even pre-sewn tents, which tend to give at the seams under environmental stress like wind. It is efficient to transport and distribute even in circumstances with fragile roads impassable by heavy trucks.

Most important, the tarp tent is the sign and the goods of the temporary. In the first months of conflict, the message of the tent, shared by the displaced inhabitants, the camp hosts, and the nongovernmental organizations alike, is that the conflict will be brief and resettlement imminent. The investment in both tents and land matches the expected duration of stay. When the conflict persists, the temporality of the tents takes on the quasi-military signification of resistance to the enemy's expanded borders and the political signification of the host's opposition to local resettlement. A tent city in Azerbaijan for ten thousand people who share the ethnicity of their hosts has persisted for a decade, under conditions that the local government admits to be unacceptable, because more permanent accommodations would signal the military acceptance of reduced borders and the local acceptance of a burdensome population.[4]

It is a more than ironic coincidence that the other popular refugee site is a disused military camp. It is in the nature of current warfare, ideally fought by a virtual infantry with cyber-intelligence and fast-moving deployable structures like inflatable barracks, that the *retardataire* military setting loses its value. On the other hand, the adaptive reuse of its regulatory structure has a brutal clarity reminiscent of Michel Foucault with a disturbingly appealing ecological twist. The military compound of Nagyatád, Hungary, opened as a Bosnian refugee settlement for three thousand people in 1991 without any dramatic physical change to the original mess hall, infirmary, or four-story barrack buildings of large undivided rooms and gang bathrooms built to accommodate fifty soldiers each. The original barbed-wire fence remained, officially to protect the refugees but also to control their movement and to maintain balance with the deprived local population of twelve thousand, who both coveted and resented the stockpiled cigarettes and fruit that the refugees traded at the local market. The camp's school, mosque, and other formal and informal social structures earned it the epithet "refugee village" but could not overcome its liminal existence, such that after three years the refugees wanted only to go home rather than become Hungarian—and the citizens of Nagyatád would have them go.[5]

To those responsible for displacement planning, the ecology implicit in reusing the military barrack as refugee village is not a trivial advantage. Refugee camps can be the size of small cities, with physical impacts at the environmental and bioregional level so profound that the United Nations High Commissioner for Refugees describes them as "eco-disasters."[6] The problems include: deforestation as refugees collect fuelwood and building material, consequent soil erosion and loss of biodiversity, poaching of wildlife, overcultivation of soil, water depletion, soil and water contamination from waste, air pollution from cooking fires, and the production of vast amounts of garbage, including shipping and construction materials. The conditions of scarcity that fuel displacements in the first place recur at the sites of relocation.

Taken together, the environmental policies now emerging to control the camps' impact describe a planning vision almost Vitruvian in its combination of quasi-military techniques and ideality. Sophisticated satellite mapping and imaging of the geography determine sites that can accommodate the settlements of twenty thousand people with minimal environmental damage.[7] The rule of thumb is a 15-kilometer-radius buffer zone

3. Cohen and Deng, *Masses in Flight*, 1–5. Also see UNHCR, *Refugees by Numbers*, 2001. http://www.unhcr.ch.

4. Erin Mooney, assistant director, Bunche Institute, Graduate Center, City University of New York, conversation with author.

5. Eva Huseby-Darvas, "Refugee Women from Former Yugoslavia in the Camps of Rural Hungary," in *Neighbors at War: Anthropological Perspectives on Yugoslav Ethnicity, Culture, and History*, ed. Joel Halpern and David Kideckel (University Park: Penn State University Press, 2000), 340–57.

6. Engineering and Environmental Services Section UNHCR, *Refugee Operations and Environmental Management: Selected Lessons Learned* (New York: UNHCR, 2001), 1. http://www.unhcr.ch.

7. *Environment in the UNHCR* 5, 2 (Dec. 2000), 7. http://www.unhcr.ch.

between campsites and natural areas to be protected based on the circumference of refugees' search for fuel. Within the camp the rule of "no clear felling" of trees and shrubs and the demarcation of areas of protected growth extend the principle of forestation. To accommodate the need for agricultural land while maintaining biomass, planners have developed systems like "taungya," in which crops are planted between trees.[8] The recommended plot size is a generous 400 square meters per household minimum, in order to encourage management responsibility of the immediate site and the addition of biomass through household planting. The cluster of four to six shelters around a shared central space is the favored device of balance between the social benefit of eating and preparing meals within the family unit and the environmental advantage of collective cooking. Collective facilities such as markets and infirmaries are distributed according to criteria of walking distance and room for expansion. In sum, the emergent planning principles of eco-friendly refugee camps bear uncanny resemblance to enlightened urbanisms, such as the New Bombay of Charles Correa and the Majorca Technopolis of Richard Rogers, that challenge the culture of the car by using the pedestrian radius of travel as the basic module for planning, reformulate the modernist garden city tradition as a productive landscape, and envision an equitable society based on equal dwelling plots.

In theory, the sociopolitical attitude implicit in the new physical planning of the camp extends to its operation by involving the refugees as decision makers. In a form of "grassroots organization" they elect leaders, who help to organize the distribution of food, shelter, and jobs. The reality, however, can come closer to social engineering because of the needs for protection and the effort to modify cultural practices that are not sustainable. While stressing the use of educational workshops to promote good environmental practice, the UN guidelines also suggest economic incentives to shape behavior. UNHCR commonly exacts a fee for firewood, seeds, and solar stoves because it has found that the cost of the item creates its value in the minds of the refugees. Cooking practices are often sites of intense negotiation between camp efficiency and cultural mores, seen, for example, in the resistance of many populations to fuel-efficient solar cooking from the belief that evil spirits will enter the uncovered food; a common compromise is the use of very large heavy-lidded pots. While clusters of tents arranged with the assistance of a refugee representative can offer a closer approximation to tribal or neighborhood structure than the military row, ultimately the opportunities for physical, economic, and social self-determination are limited.

The approach to camp organization that best mitigates the problem of self-determination, and in doing so explores an expanded range of physical settings, is permaculture.[9] A neologism formed from "permanent" and "culture" in the 1970s, permaculture refers to settlement patterns that minimize waste, maximize diversity, and choreograph mutually supportive relationships among the elements of the system—houses, animal units, streams, forests, and the like. In the context of refugee camps—which have neither permanence nor culture—the goals of permaculture pertain to the larger life cycle of the camp and to the roles of its refugee population as stake holders in their current condition and agents in the future of the place. The intention is for camp residents to manage first their internal and ultimately their extended environmental affairs, as occurred, for example, in the Umpium camp in Thailand, where residents first negotiated the allocation of land and fruit trees for home gardens and then participated alongside local villagers in a public representative body that deals with the Thai authorities on environmental matters.[10] Ideally, camps and villages become political and economic partners, as in Jhapa, Nepal, where refugees and local residents first collaborated on erosion controls and then on land reclamation for commercial agroforestry.[11] The strict ecological vantage point of permaculture requires the camp to be understood as a fragment of a region, and the region to be held to the same environmental standards as the camp.

The permaculture camp echoes the vision of eco-idealists and green economists in their postindustrial alternatives to corporate globalization. The society outlined is one of small-scale, decentralized, and self-reliant communities that join together in municipal networks of shared laws and standards in order to maintain bioregional balance. In the eco-service economy, service replaces commodity through the concept of use value, such that products are mobility not cars, nutrition, not food, and—one might add in the context of refugee camps—planting, not crop production, cooking, not fuel. As in the closed economy of the camp,

8. Ibid., 9.

9. For the origins of permaculture in Australia in the 1970s and some present experiments, see Hugh Barton, ed., *Sustainable Communities* (London: Earthscan, 2000).

10. Engineering and Environmental Services Section UNHCR, *Refugee Operations and Environmental Management*, 46–90.

11. *Environment in the UNHCR* 5, 2 (Dec. 2000), 4. http://www.unhcr.ch.

↓ Assembled single unit: placed at a distance from each other, the separate privy and hearth can initially frame a habitable space between them, protected by a photovoltaic tarp.

↘ Current exploration of folding mechanism: The dominant population of the camps and of return is women, who are at risk when they seek help for construction and even fuel gathering. Their needs inspired the tools of assembly like the car jack (even a woman can change a tire) and the at-hand infrastructure of water and fuel.

the green marketplace uses an eco-incentive system of barter that extends to the recycling of objects. It relies on local currency and exchange values that prevent the siphoning off of capital to remote locations. Granted by an authority other than the nation-state, shaped by its inhabitants for sustained development rather than expansive growth, operated as a service use-value economy with a system of exchange credit based on energy consumption, the permaculture refugee camp aspires to an experiment in the eco-idealist manner with populations that far outsize any of the current eco-idealist communities.[12]

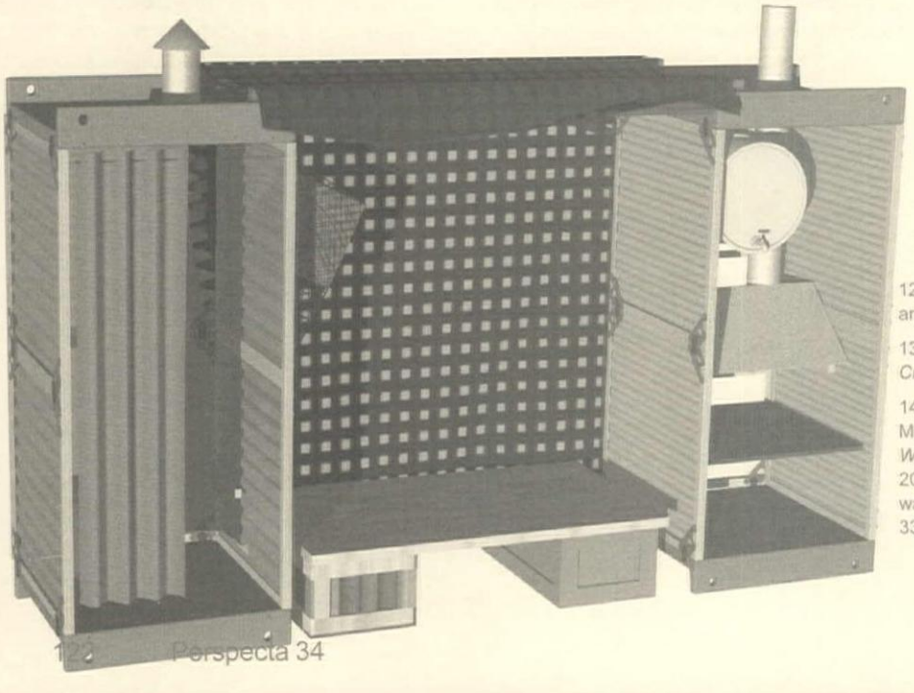
This spatial blurring of the permaculture camp and village, refugee and host, is likewise a temporal blurring in which the site of refuge becomes the site of resettlement, and the settlement a self-determined village where the refugee has, in fact, cultivated her own garden. Still, the underlying condition of displacement remains; temporized by the idea of return, all such sites are diasporic.

The unending desire of the displaced is to return home, even when acknowledging that home consists of a set of conditions that will never recur or, perhaps, never quite existed. "Were our customs really beautiful or am I just imagining things?" is one such refrain.[13] More than unmet desire, however, the idea of return is a realpolitik solution to halt the erosion of the social as well as physical fabric and the loss of property rights. Basically, the longer one waits, the worse things get. UNHCR aids voluntary repatriation by evaluating towns according to criteria of, among other things, access to housing, freedom of movement, and police protection and through gifts of tools, seed, and tarps; but it lacks a strategy for the recuperation of the physical city needed to make return a real possibility.

The problem of urban recuperation drove our thinking in a competition for disaster-relief housing for Kosovo. The competition called for an alternative to the tent—that most telegraphic sign of displacement—to be erected within forty-eight hours from an absolute minimum of materials and to remain in place for as long as two years. Considering the projected duration of the camp setup, the fundamental issues lay beyond the scope of the tent in questions of infrastructure, planning, and the environment. Rather than create better sites of dislocation, our strategy considered the reuse of the city to avoid the physical and mental waste inherent in building refugee camps. The challenge was to develop a physical device that could reconstitute an urban fabric without the support of a civic scale of infrastructure and that could, as an auxiliary consequence, retool a refugee camp as if it were a city. The proposal employs a condensed infrastructure of a privy and a kitchen with hearth-heat source and integral cistern-shower housed in demountable yet load-bearing enclosures.

The design negotiates among issues of cultural specificity, using both the locally available, such as insulating straw, and the imported, such as high-performance ceramic sheathing. It juggles the need to preserve the camp ecology from a strip search for building materials or fuel and the need to minimize the material value of the shelter as resale scrap with the demands of a structure suitable for reuse on the sites of return. Given the variety of refugee lifestyles, the plan required flexibility such that, for example, the kitchen could face the privy, or garden, or not. The style of this object is largely irrelevant; embedded deep within the permanent house, it has little impact on an outward appearance determined largely by the inhabitant. The boxes aspire to the universality of the tent through their instrumentality alone. To this end, the photovoltaic tarp and its battery supply not just heat and light but also a TV hookup, the ultimate link from nowhere to everywhere, more desired in the camps of Chechnya, the streets of Calcutta, and the shelters of New York than square footage or a full kitchen.[14]

The boxes are seeds of the new city containing all the goods immediately needed, with husks that can be transformed and eventually absorbed within the growth of the house. While they allow the renewed operation of a site, these objects remain incomplete and ultimately dependent on their host city as a form of economy. The urban situation takes on their



12. Brian Milani, *Designing the Green Economy* (New York: Rowman and Littlefield, 2000).

13. Julie Mertus, ed., *The Suitcase: Refugee Voices from Bosnia and Croatia* (Berkeley: University of California Press, 1997), 71.

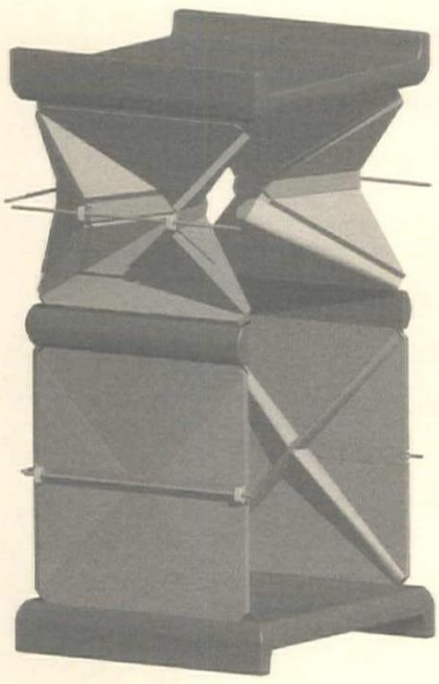
14. Larissa Lomnitz, "The Social and Economic Organization of a Mexican Shanty Town," in Josef Gugler, ed., *Cities in the Developing World: Issues, Theory, Policy* (Oxford: Oxford University Press, 1997), 207. In Cerrada del Condor, a town of 177 families, there are two water faucets; 80 percent of the population uses a gully for a latrine; 33 percent of households have a TV.

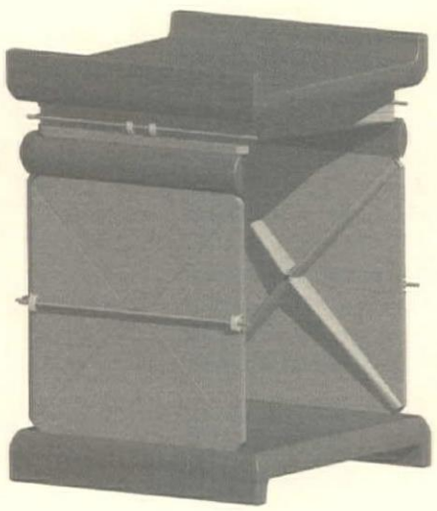
trace along with that of the preexisting city but remains somewhat fluid, with the possibility of new kinds of buildings, new relations among them, with the hope of a lush second growth.

The current architecture of displacement: in-dwelling

There is another condition of displacement, which we have named "in-dwelling," best described through the impediments to measuring it. The refugee is "in" the house of a relative or acquaintance, or "in" a cheap hotel or abandoned school or underutilized monastery, or even "in" a hospital bed. Besides these nomadic but registered refugees, UNHCR acknowledges a vast uncounted number of displaced persons who hide out, refuse to be identified, and move around out of fear. Their accommodations are almost always fleeting because of the pressure exerted on overcrowded households, the anxiety of host institutions, and the fickleness of local policy.[15] The advantage of hiding out is that it allows the displaced a continuity within a society where they can scavenge employment and maintain personal networks even while remote from property, family, and profession. At the poorest level of society, the temporal and spatial dispossession of the indigenous and the imported populations can meld beyond recognition.

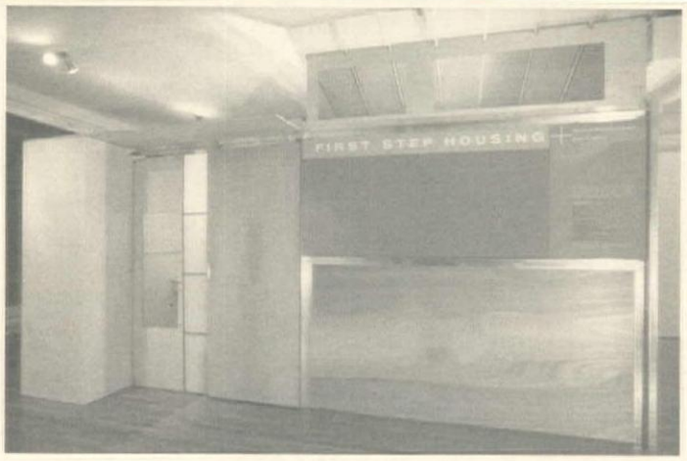
The equation of resource scarcity, population pressure, and mobility places the refugee and the homeless within a continuum of displacement, as agencies like Doctors Without Borders recognize in sending teams into the slums of Rio as if into a war zone and as we came to recognize in a project for New York City. The local New York housing organization Common Ground Community first approached Marguerite McGoldrick, who then asked us to join her in the development of a new kind of flophouse, meaning a type of demountable room that stands within a larger loft space as an alternative to the armory-type shelter. Common Ground described the intended users as the mobile homeless, who would occupy this shelter and its related social programs as a "first step" on the way to a more stabile existence. As housing to stabilize the dispossessed, it seemed to us a form of disaster relief.





Here in New York, the capital of hyper-capital, far from famine, at the end of the looped flow of global investment and displacement, any housing shortage seems a scarcity fabricated within a culture of abundance to fuel demand. Building codes and zoning resolutions, for all their laudable protective measures, also function as mechanisms of scarcity in their rigid attitudes toward square footage, programs, and materials. The housing policy of New York asserts the primacy of the normative apartment with distinct bedrooms and kitchen areas to the exclusion of alternative and more minimal dwellings. Common Ground has not been able to find a site for First-Step Housing because over twenty years ago the City of New York outlawed the creation of new single-room occupancy projects and flophouses. The only recourse is to renovate an existing flophouse as a case of "grandfathering" in a preexisting use, with the hope that the success of the experiment leads to further variances. However, most of the remaining flophouses line the Bowery in the eastward path of SoHo's expansion, making the property too expensive for Common Ground's intended

15. U.S. Department of State, *Bosnia and Herzegovina Country Report Based on Human Rights Practices*, 1997. Also see UNHCR, *The State of the World's Refugees* (Oxford: Oxford University Press, 2000).



→ First-Step Housing, Marguerite McGoldrick, architect, and Gans & Jelacic: View of two attached units oriented at 180 degrees as they were displayed at the Van Alen Institute gallery in the Fall of 2000. Three sliding panels of interchangeable position and function and varying degrees of transparency compose the front wall: a solid front door, a translucent Kalwall window panel, and a perforated metal closet screen. They are set back from the exterior edge of the closet to create a zone of transition and identity like a porch.

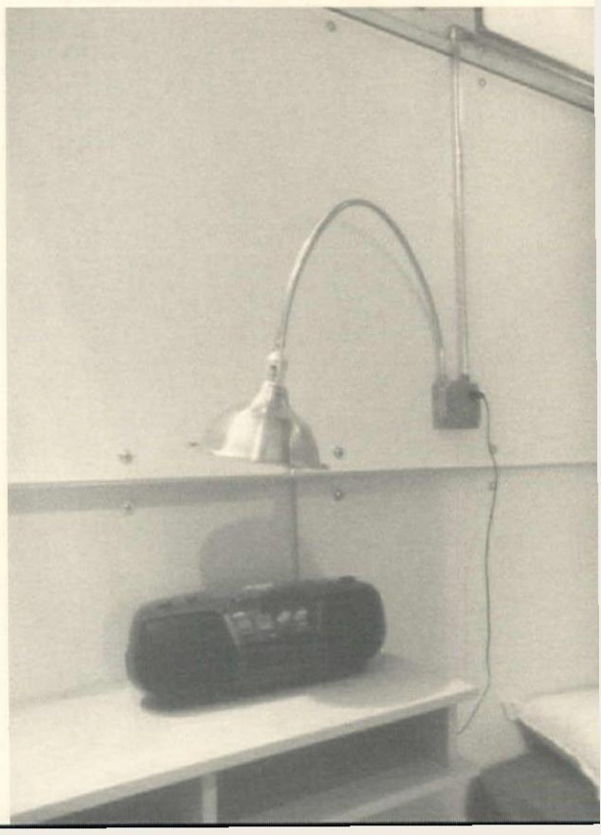
use. The most legitimate venue for this housing so far has been the Van Alen Institute gallery, where client-user focus groups studied it, and, with the inevitable ironies of art in the age of commodity, gallerygoers investigated the possibility of using it in their offices and lofts.

What distinguished the client-users of this project from other homeless was their resistance to being housed, whether from an ideological resistance to government aid, with its social costs of participation; resistance to treatment, with its controls; or from an immigrant/refugee fear of identification. During our interview process, these resistant users reminded us that the homeless are not destitute of standards or conditions. They articulated the belief that homelessness should not exist to begin with and that any acceptable shelter, no matter how transient, will be a "home away from home." They considered their rights to include acknowledgment of permanencies they do have: their communities, locale, habits, and possessions. They shared in the general population's desires for the modern home: light and air, space, cleanliness, order, comfort, privacy, security, a sense of place, and beauty. They required that these recognizable standards of living come in alternative and social configurations. In sum, they demanded a product that would appeal equally to the population signified by the gallery visitors.

First-Step Housing shares an underlying ideogram with the structure for Kosovo. It is likewise a lightweight, small-membered, self-supporting, transportable system of parts, some of which are customized and prefabricated, others of which are local and readily available in order to allow for adaptations of both plan and appearance within the demands of mass production. The issues of cultural difference and self-determination in Kosovo translate here as the question of privacy within an environment of detailed surveillance. Layers of material and space created by the sliding panels of Kalwall, screen, and wood allow variable degrees of privacy controlled by the occupant. Within the units are devices for privacy's enrichment—a lock, a plug for the universal television, a closet, built-in wall hangers, a range of choice in color and finish.

As in the Kosovo project, where the same ceramic panel is both wall and stove and the same barrel is both a shipping container and a cistern, these units consider the phenomenon of displacement as a problem of waste. The ethos of anti-waste requires frugality in production, multifunctioning in performance, and eventual reuse. Together these economies are the current criteria in many disciplines, from mathematics to microbiology, for "elegance" within the sustainable system or network. Within the economy of our Common Ground project, the cruciform aspires to such ultimate structural elegance as a Miesian trope, rendered in an aluminum extrusion that can be cut to any length, drilled on-site, deployed as both column and beam, and attached to panels in its four directions.

The accidental thirty-year residency of the Bowery bum at the Sunshine Hotel as well as the tents still in place ten years after the civil strife in Azerbaijan demonstrate that temporary solutions are not distinguishable from the permanent on the basis of duration. What makes a dwelling temporary is its dislocation from site, from political and economic community, and from one's own history. Underlying our two projects to retool the ruined or limited city so that it can perform in new ways is a belief that the ultimate check to the progress of dislocation is not the literal act of return but urbanity itself. As Scott Anderson describes, the "historical cosmopolitanism" of Sarajevo and Belgrade, Pristina and Mostar was such a cultural and economic urbanity undone by events resembling the pattern of de-ruralization, migration, and flight. "The gulf of experience between city and village in the Balkans is an awful chasm. The cities are emblems of cultural fusion; the typical Balkan village a hard and pitiless place with ancient feuds and primitive blood laws. The leader/villains (Milošević, Karadžić) are country boys who, when faced with the economic crises, shed their urbanity and return to their village ways."[16] There is no undoing globalism or certain continuing economic crises, but there might be a new hybrid city, perhaps with some of the attributes of a permaculture refugee village or a first-step Bowery, that is more resistant to the epidemics of dislocation.



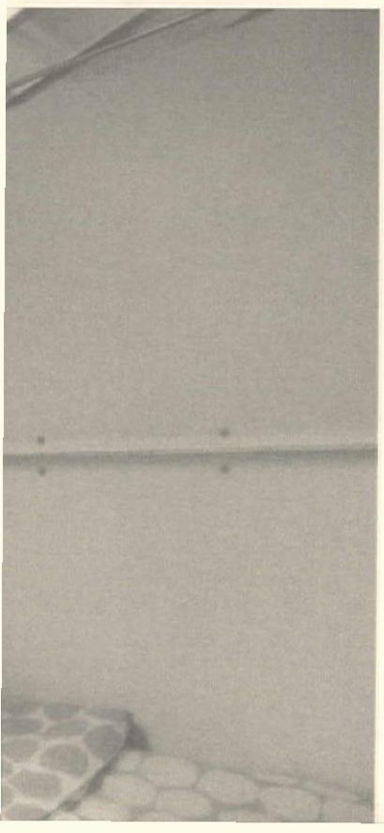
16. Scott Anderson, "The Curse of Blood and Vengeance," *New York Times Magazine*, 26 Dec. 1999.

↘ Axonometric of single unit with alternate curved roof.

↓ Interior of First-Step Housing unit: as Nate, a Bowery resident interviewed in a focus group, concluded, "These are beautiful homes. And there are a lot of guys in the hotel who could set up their 'business' in here, because of the door and window, the storage closet, the porch, the desk, … and the lock."

Coda: a true story

With the collapse of the Soviet block, a small town on the Dalmatian coast bounced back from a progressive decline in its agricultural economy to emerge as a tourist haven for Europe in the 1980s. Residents eagerly gave up small farms, vineyards, and fisheries; moved to town; and opened hotels, cafés, and restaurants. They claimed their villas were worth half a million dollars each. The war eventually stopped the tourists, decimated the economy, drove out the resident Bosnians, and destroyed much of their property, and with it some coastal beauty and the real-estate value. But because the tourist economy had depended on the scenic appeal of the permanent culture of the area—namely, the vineyards, farms, and harbor—traces of the agrarian economy remained. Those who closed their hotels replanted their orchards; those who lost their villas launched their boats again. First they fed themselves with the produce, and now they even begin to prosper. Still, they would prefer for the tourists to return and for their houses to be worth half a million dollars. But they know that day will come only after some of the Bosnians return and reconstruct their homes and businesses along the coast, so as to calm the fears of the multiethnic tourists. Then there will be hotels and cafés, but also working vineyards, fruit groves, and fisheries, in an unpredictable and lush second growth.



KOSOVO Disaster Relief Housi

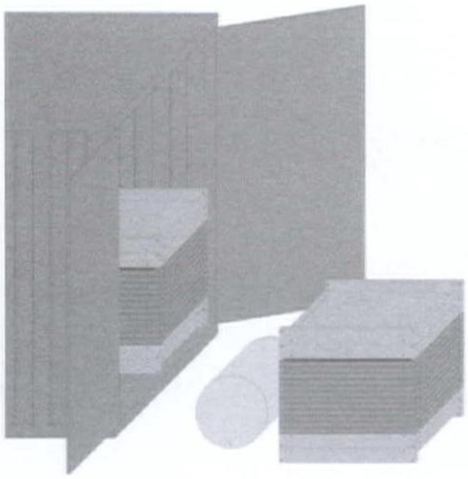
Our strategy and goal is the immediate return of the people of Kosovo to the sites of their former homes.

Site

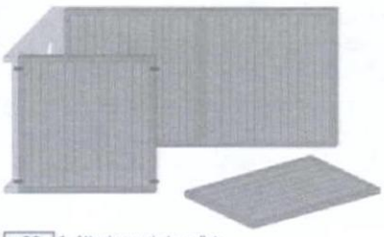
Rather than create structures and sites of dislocation, we propose a system that can provide initial emergency shelter and subsequent temporary housing on the intended sites of permanent dwelling. These sites will range from damaged homes, to ruins, to cleared lots and vacant spaces of cities and villages. The emergency shelter will serve as a temporary core and scaffold during the reconstruction of these sites and, in some cases, as a permanent structure supporting the new house.

Structure

The shelter structure consists of two freestanding bo "earth" with a privy, the other for "fire and water" wi integral cistern, and shower. Both have componen tural galvanized steel frames, top and bottom pallet reinforced concrete and various side panels of fiberg gated metal, and metal ladder. Placed at a distanc another, the two boxes frame a habitable space in be enough to accommodate a bed. Initially spanned by



Fire & Water Box



:30 1. Attach panels to pallets

1:00 2. Tilt box up roughly po

210 Liter Drum

Self-Locking Bolts and Binding Clips (x36)

Support Angles (x8)

Galvanized Steel Funnel

Galvanized Steel Vent

Foil Backed, Fiberglass Reinforced Tarps

Nylon Cord

Galvanized Steel 40 Liter Buckets (x2)

Tools

GRC Pallet (x4) Glass Reinforced Concrete

Ladder Panel (x2) Galvanized Steel Frame w/ Galvanized Steel Wrungs

Fire Proof Panel (x4) Galvanized Steel Frame w/ Galvanized Steel Panel

Light Panel (x6) Galvanized Steel Frame w/ Fiberglass Panel

Galvanized Steel Fireplace Flue

Galvanized Steel Smoke Chamber

Galvanized Steel Privy Shoot

Iron Grill

Wood Privy Set

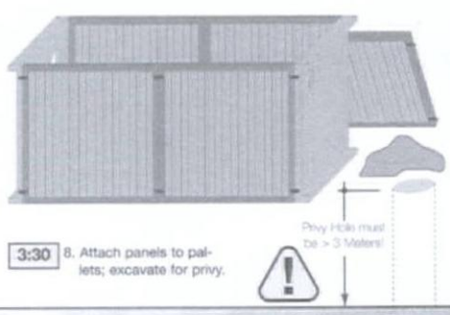
20' Container may be used in community for aid station or food stores.

A chemical toilet may replace privy when resources allow.

Holes in runners allow cord to be attached.

GRC pallets are water and heat resistant.

Earth Box (Privy)



3:30 8. Attach panels to pallets; excavate for privy.

3:45 9. Tilt box up ly position hole.

Photo: New York Times © 1999

33 TRANSITIONAL HOUSING FOR KOSOVO DEBORAH GANS/MATT JELACIC 1999

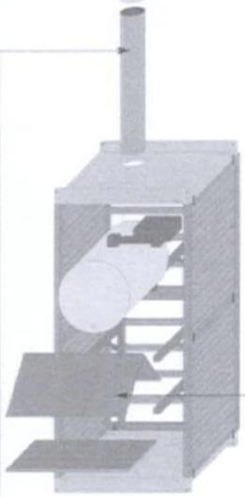
nd protected with tarps, the distance can subsequently be ramed with beams supported by the pallets and protected with liding doors. These beams can also serve as scaffolding for the construction of the house and even permanent structure for the loor above.

Deployment

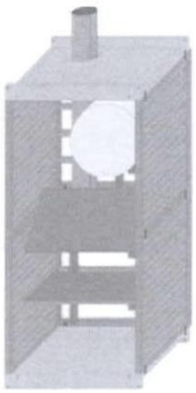
Disassembled into modular panels and stacked and tied for shipping, the two boxes have a total volume of 1130 mm square by 1100 mm high. The palettes form a protective top and bottom for the panels and various sheets of metal stacked between. The cistern barrel holds the steel brackets, hardware, miscellaneous components, and tools for the eventual resurrection of the permanent house. Twenty emergency shelters fit in a standard twenty foot shipping container.

Hoisted from truck via the grips provided on the palettes and placed on the site, we estimate a team of four can erect the emergency shelter in less than six hours. The drawings below illustrate the step-by-step assembly.

. Attach brackets to ladder

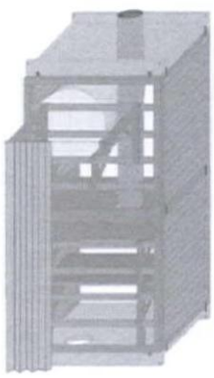


1:45 4. Insert grill, hood, chimney, and drum w/ funnel attached



2:00 5. Attach hoses with stopcocks to drum

2:15 6. Attach brackets for shower enclosure.



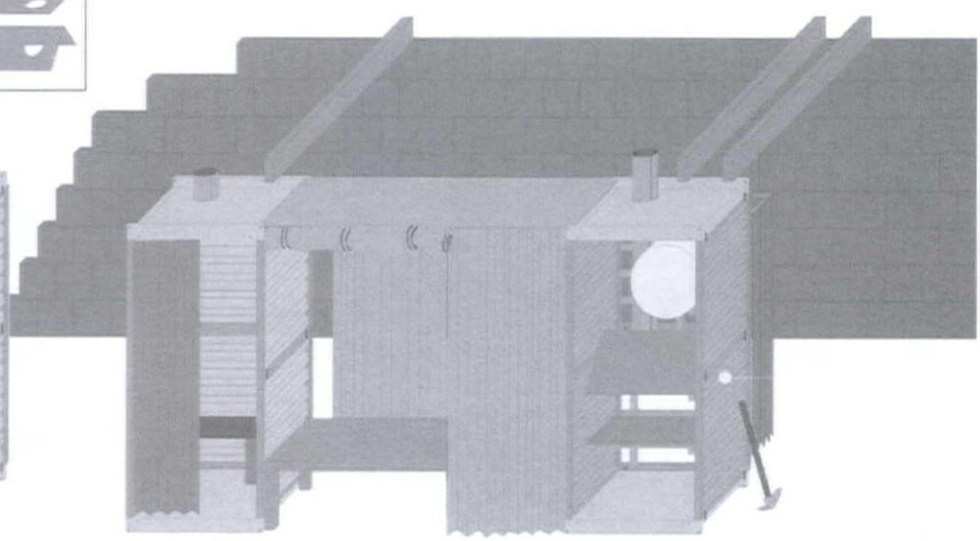
2:30 7. Use nylon cord to attach tarp for shower enclosure.

doubles
port for
ckets

Pallet surface is sloped to collect water in drum.

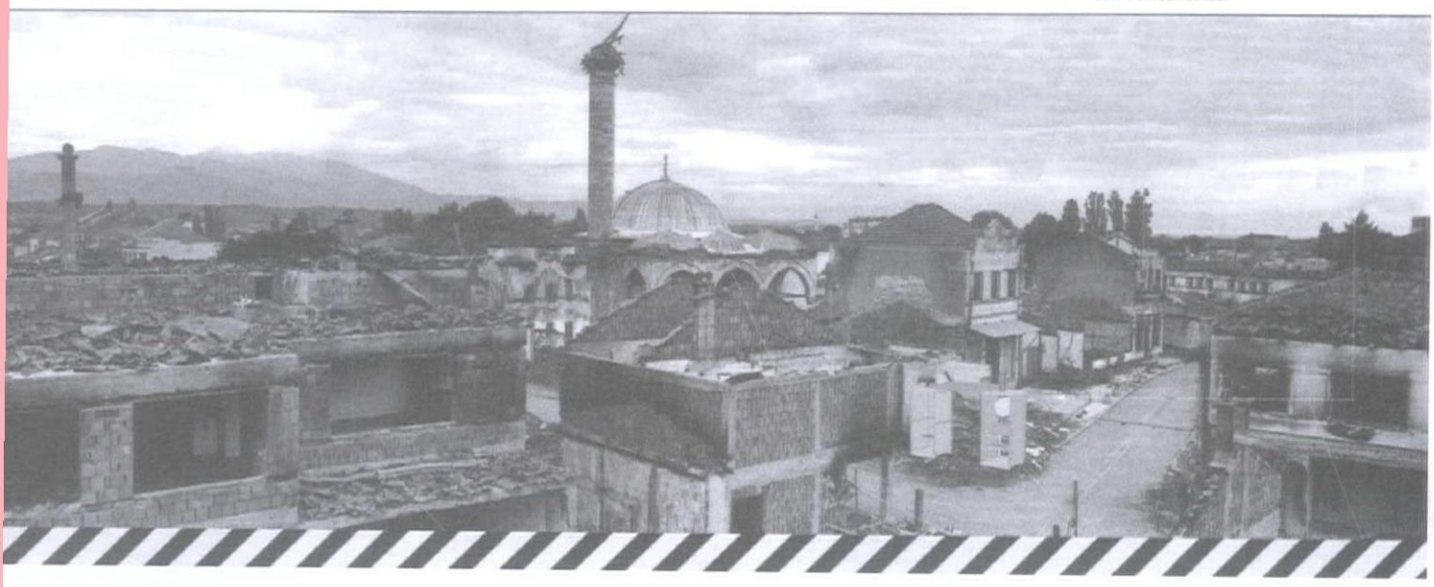
10. Insert Shoot for privy; secure to pallet at seat height.

4:30 11. Attach vent and seat.

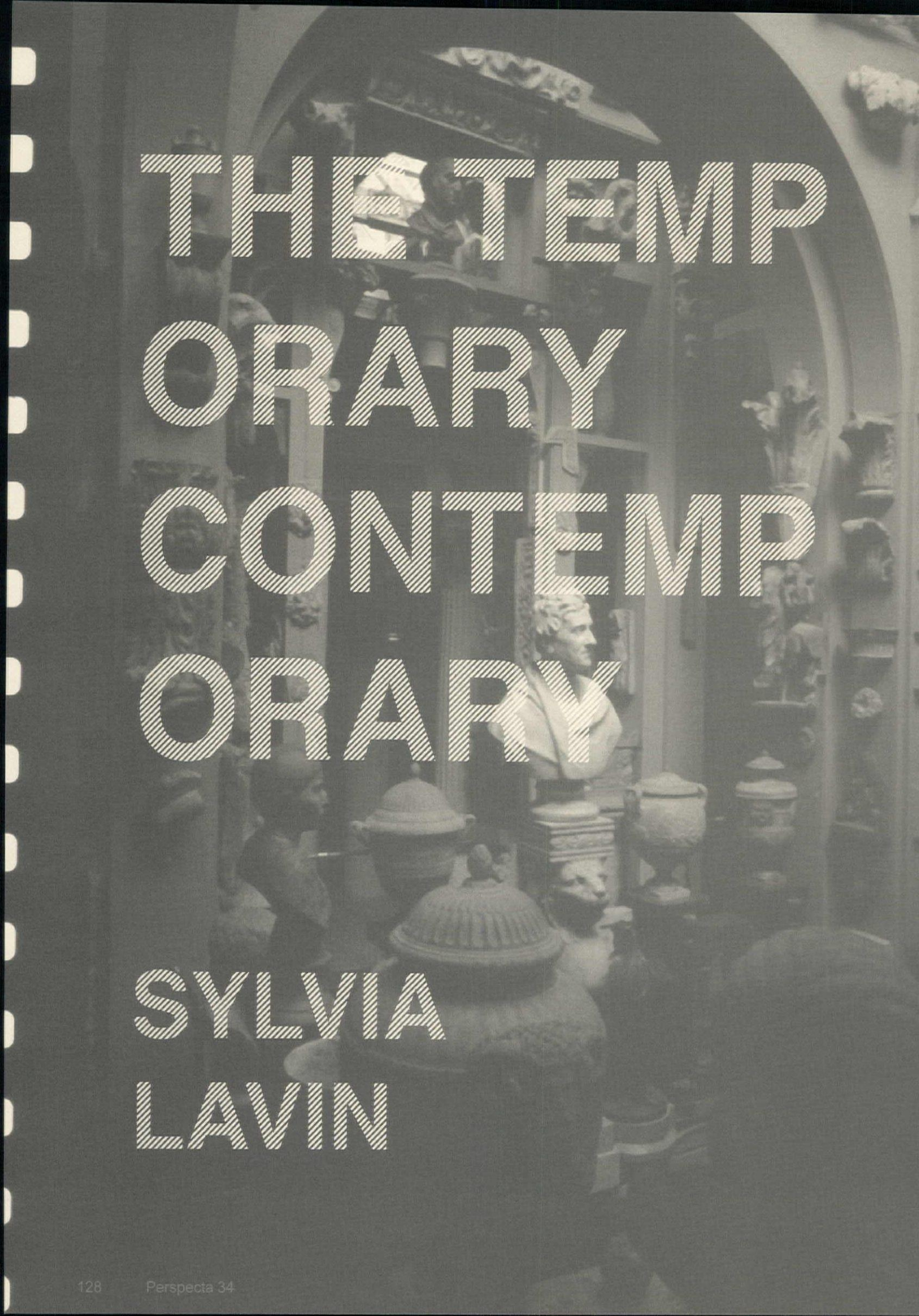


5:00 12. Use nylon cord to suspend tarp for privacy.

>6:00 13. Use nylon cord to suspend tarps for enclosure between boxes.



TRANSITIONAL HOUSING FOR KOSOVO DEBORAH GANS/MATT JELACIC 1999 34



THE TEMP ORARY CONTEMP ORARY

SYLVIA LAVIN

At some point in the 1950s modern architecture became contemporary. While this displacement began in the 1940s and can be tracked through myriad forms, the shift had been completed by 1954.

← The Dome at Soane House.

In that year Sigfried Giedion published *A Decade of Contemporary Architecture*, in which he describes the "consolidation of the whole movement." This publication reveals a distinct struggle with the nomenclature of a phenomenon that Giedion argues began in 1947, with titles shifting among "new," "recent," "modern," and so forth, settling down uneasily and with reservations to "contemporary" in 1954.[1] That same year the editors of *Architectural Record* compiled *A Treasury of Contemporary Houses*.[2] While all the featured houses were described as modern, the editors also claimed that these houses resisted and exceeded doctrinaire definitions of the modern: "Why should a modern house have to have a flat roof? Or a glass wall? Or an open kitchen? Why should it have to have its structure exposed? Why shouldn't it have anything its owners really want, including a curve or two, even a Victorian curve?"

For the editors of *Record* the contemporaneity of these houses lay in this excess desire. Unlike Giedion, whose struggle to define the contemporary led him simply to extend modern categories like structure, urbanism, and social improvement, the *Record* editors asserted the contemporary's specifically antimodern character: these modern houses had become contemporary by acquiring nothing more (but nothing less) than a "new look." Replacing the prewar emphasis on firmness and commodity, they seized on the element of the Vitruvian triad that the modern movement had neglected and argued that "*delight* is the current fashion."[3] When modern architecture became contemporary, it shifted allegiance away from industrial production, the fortitude of engineering, and an ethos of purification, forging new relationships with interior design, decoration, fashion, and above all the quixotic pleasures and designed obsolescence of consumer culture.[4] Despite the basic undertone of conflict in Giedion and of celebration in the editors of *Record*, both efforts to periodize modernism did so by restricting prewar modernism to architectural fixations and dispersing postwar modernism into decorative supplements. In other words, in the logic of mid-century rhetoric the modern house had, by 1954, come to be dressed up in a contemporary style.[5]

This shift from modern architecture to contemporary style describes a historical phenomenon, a specific condition that emerged at a certain moment under definable circumstances. Loosely speaking, the shift is characterized by the impact on the modern movement of social, economic, and cultural developments occurring during and just following World War II. But the contemporary as such announces a speculative terrain and a sensibility that is not historically determined. Modernism *had become* contemporary by 1954, but the contemporary *is* modern with fashion sense. Today the difference between being modern and being contemporary relates to but exceeds the differences that existed at mid-century. The modern movement understood itself to constitute a fruition of a historical development, culminating the timefulness of classical eternity by substituting it with timelessness. *Tomorrow's House*, a 1945 compilation by George Nelson and Henry Wright of *Architectural Forum*, equivalent in many respects to *A Treasury of Contemporary Houses* and often mistaken as a harbinger of postwar developments, actually enjoined the reader to be *modern*. Nelson and Wright promised that architecture could end the past by capturing the future: "If one were to take the best planning ideas, the best structural schemes, and the best equipment that have gone into the best modern houses, and combine them appropriately in a single house, the result would look like something out of the day after tomorrow."[6] Nelson and Wright's injunctions against style ("you will find no catalogues of 'styles' [here], no orations on good taste"), against fashion ("individuality in houses, as in people, is a fundamental expression of something real. It has nothing to do with fashion"), against specificities of all kinds ("the room with no name"), were efforts to

1. Sigfried Giedion first published *A Decade of New Architecture* in 1951. The second edition, which appeared in New York in 1954, has two title pages, both in three languages. The French and German titles remain consistent, *Dix ans d'architecture contemporaine* and *Ein Jahrzehnt moderner Architektur*, respectively. The English title appears as *A Decade of New Architecture* in a small typeface on the first title page and as *A Decade of Contemporary Architecture* in a large typeface on the second title page. The second edition contains an appendix on the years 1947–1954, which Giedion in his preface describes as a "supplemental covering" of the "further consolidation of the whole architectural movement."

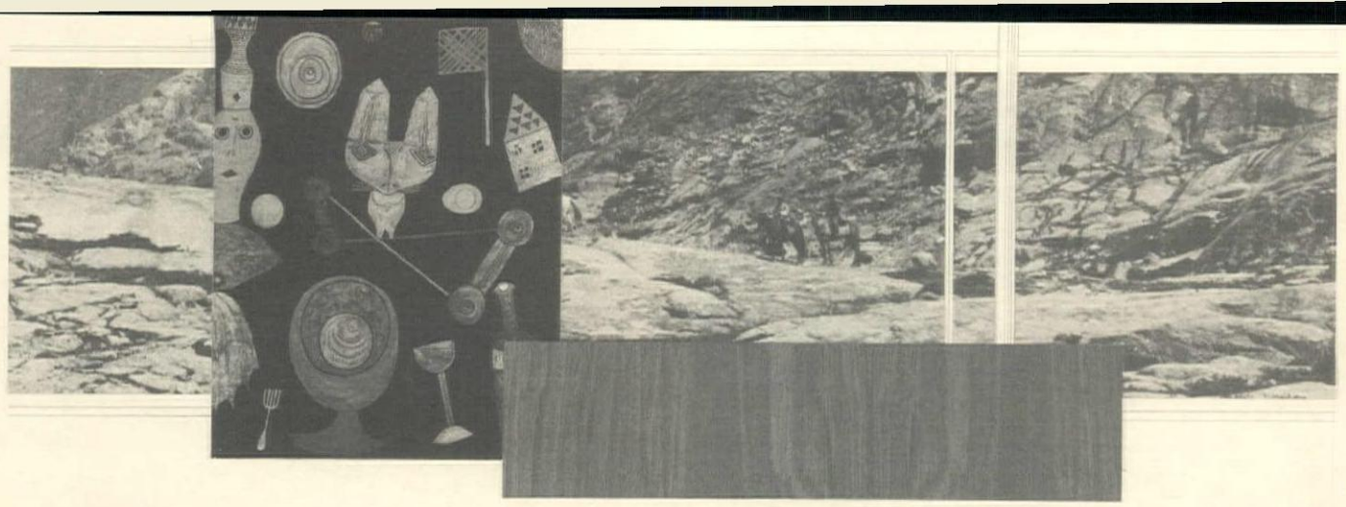
2. *A Treasury of Contemporary Houses Selected by the Editors of Architectural Record* (New York: F.W. Dodge, 1954).

3. Emerson Goble, introduction to ibid., v.

4. Still today, common associations with postwar contemporary design are "heightened expressiveness, broader ranges of color and shape, and a mood of pleasure rather than austerity." See Lesley Jackson, *"Contemporary": Architecture and Interiors of the 1950s* (London: Phaidon, 1994).

5. Another way to articulate the same historiographical point, which constitutes something of a digression in this context, would be to say that as postwar architecture dispersed into contemporaneity and into architecture's decorative supplements, it produced a consolidated view of prewar architecture characterized by strictly architectural fixations. Despite the differences in the manifest attitude toward the contemporary in the texts by Giedion and the editors of *Record*, both efforts to delimit or at least define the contemporary brought into being the very modernity with which the contemporary was contrasted. In other words, it can be said that the modern house was laid bare only when, by 1954, it had been dressed up in a contemporary style.

6. George Nelson and Henry Wright, *Tomorrow's House: How to Plan Your Post-war Home Now* (New York: Simon and Schuster, 1945), 8. This book is often interpreted as a harbinger of the distinctiveness of postwar architecture. My argument, however, is that while the book may contain material often periodized as "postwar," its theoretical concerns remain entirely modern and indeed helped constitute the very modernity with which it is contrasted.



shield modernity from anything that could betray temporal contingencies.[7] *Tomorrow's House*, they prophesied, would collapse architecture into a world of forever modern.

The contemporary, on the other hand, while shaped by the processes of modernization, wanted to be with time. The contemporary was a style that announced itself as such by foregrounding its temporary features: its decorative patterns, its collectibles, its very stylishness. Contemporary architecture of the 1950s integrated zones of intensity and delight into the cool and neutral spaces of modernism: the hot corner window of a postwar Neutra house gave to modernism a moment of contemporaneity.[8]

Contemporary architecture was not just the architecture of fashion in the 1950s and is not just all architecture at the moment it is built. The Salk Institute was never contemporary, not even in 1961, although it was certainly modern. On the other hand, Philip Johnson's Glass House has perhaps only ever been contemporary. Contemporaneity is not, nor was it ever, a default; it is not synonymous with existing in or representing the present's essence and thus differs fundamentally from *Zeitgeist*. Rather, to become contemporary is a project and an ambition that requires the identification of an architectural terrain that activates the sensibility of being with time. If modernism was an architecture of restraint and inhibition, contemporaneity must be staged and must evoke a modality of exhibition.

The architectural terrain of contemporaneity is the field of the exhibitable and the mood of display. Therefore, to consider contemporary architecture, both historically and speculatively, is to consider the alignment of architecture with the exhibition and hence with curatorial practice. This has little to do with either the institution or the architecture of museums; the history of modernism is filled with examples of the architect working as exhibition designer, with architecture on exhibit, and with the design of museums. More recently this history has expanded into investigations of the impact curators such as Philip Johnson, Alfred Barr, and Bernard Rudofksy have had on architecture.

Modernism, however, never claimed architectural exhibitionism as part of its regime, but rather constituted it as ancillary. The contemporary, by contrast, claims curatorial practice not because it emphasizes architecture as spectacle, or because it dethrones the architect in favor of the curatorial underdog, but because it opens and makes available a neglected dimension of architecture itself. Curation begins where architecture is supposed to end but does not. To curate is to address the field of effects, unique or mundane, through the treatment of lighting, of decoration, of objects, of surface, of geometry, of beauty, of "delight." To curate is to exhibit much that modernism inhibited and that architecture historically identifies as supplemental. The curator is not a person or a subject but a function and practice that stages contemporaneity through activating the effects that architecture inevitably produces but rarely confirms.

Theorizing the curatorial and the contemporary necessarily begins with the home collection. The endless repetition of the use of the home as a collection container, from the private *Wunderkammer* in the seventeenth-century hotel to the Martha Stewart collection of the Kmart suburban subdivision, has told a variety of stories. Despite tones ranging from triumph to regret, these stories have generally been concerned with recounting the steady encroachment of consumer culture into the previously disinterested space of the aesthetic. But understanding this repetition as a symptomology rather than a development reveals a different etiology. At every instance, whether in terms of the parquet floors of a rococo interior or the plush pastels commonly featured on *MTV Cribs*, modern domesticity evokes the problem of decor and hence constitutes a stage for curatorial and not just consumer practice. It is not just that kitchen equipment was put on display at the Museum of Modern Art but that kitchen utensils were already on display in the home. Modernism tended to locate and limit the ontology of the exhibition as such to the institution of the museum, in part by defining the home as a place of mere storage and the inhibition of visible artifacts. In fact, the modern house became, perhaps more than anything else, a place for the display of stuff. To this day, from the arrangement of

7. Ibid., 9, 7, 76–80.

8. On the corner in Neutra, see Sylvia Lavin, "Richard Neutra and the Psychology of the American Spectator," *Grey Room* 1, 1 (Fall 2000), 42–64.

← Mies van der Rohe, Ludwig (1886–1969). Resor House, project. Jackson Hole, Wyoming. Perspective of living room through south glass wall. 1937–1941, unbuilt. Graphite and collage of wood veneer and cut-and-pasted reproduction and photograph and graphite on illustration board, 30 x 40". Gift of the architect. The Mies van der Rohe Archive (716.1963).

The Museum of Modern Art, New York, N.Y., U.S.A.

photos on a mantel to the selection of soap for the bathroom, the house insists on the deployment of curatorial techniques.

To reconsider architecture in relation to the sensibility of the contemporary requires analytic tools not encumbered by the traditional identification between the modern movement and the techniques of the modern architectural historian. Theorizing the contemporary requires tools able to admit architecture's mobilization of curatorial techniques, a territory recognized neither by the modern movement itself nor by its master narrators. Domestic curation is such a tool because rather than police a divide between art and nonart, between shelter and architecture, between museum and home, it permits one to consider architecture and the staging of time. If the museum has permanent displays and the *Kunsthalle* temporary exhibitions, the house shows special effects, durable goods, perishables, and expiration dates. And while foregrounded by the architecture of the house because of its paradigmatic status in the twentieth century, the implications of the curatorial practice of architecture are not dependent on the domestic program. Rather, domestic curation permits one to consider most precisely the very production of architectural contemporaneity.

Sir John Soane is a well-known architect, but he has perhaps more interest today if considered a domestic curator. Lincoln's Inn Fields is simultaneously a home and a museum; or, rather, it is a structure that houses both domesticity and museology.[9] Soane spent much of his life assembling his collection of antiquities, paintings, models, mirrors, and so forth, as well as amassing the collection of buildings that houses these objects. The collapsed distinction between dwelling and collecting continues today with the sense of ownership and intimacy conveyed by the curators of the John Soane House and Museum—they seem as much like inhabitants as they do caretakers. Recent scholarship has similarly focused on the difference between public and private spheres within the Soane House, as well as on its relationship to collecting and representation.[10] In fact, Soane has been re-created by almost every architectural generation of the twentieth century. His work has been used to establish a patrimony for the elimination of ornament from architecture, for abstraction, for historicist postmodernism, for spectacularity. The constant reinvention of Soane is not accidental, but rather is evidence of how the house mobilizes the mood of contemporaneity. As the collections grew and sought their final staging, the house had to be continually updated and revised. The architecture was generated by the curatorial impulse, and the continual presence of that impulse opens the house to temporality and permits it to be reinstalled with every new contemporary imaginary. Soane was a pack rat—he was not just a collector but a compulsive, with excessive multiples in each category of his collection. The collection is not precisely encyclopedic but repetitive. It did not produce a comprehensive assemblage of unique objects within a class—every different kind of capital, for example. His library was filled with several copies of the same book, just as the breakfast room is articulated with many of the same kind of mirror.[11] The story of the house is, in part, the story of finding the proper place for this improper quantity of things. As Soane acquired more and more possessions, he needed more and more building to house them: not just for storage but for display. As the collections became permanent, the architecture became temporary, afflicted by an almost relentless rebuilding and restaging.

The shape of the house is a result of the collections and in turn was called upon to showcase them with maximal effect. Soane developed an elaborate bag of tricks to add a range of characters and moods to his collection. Perhaps the most dramatic of his techniques—in addition to his experiments with lighting, sectional complexity, and optical devices—was the treatment of the wall, or rather of its surface. Laminated at moments, as in the Picture-Room, encrusted at others, as in the Dome, the surface itself became a special effect. Treated in utterly inconsistent ways through the house, it never creates a predictable system. It is in that sense that Soane's surfaces are concerned with effect: they have no legible cause. While they are effective insofar as they de-emphasize causality and legibility, the surfaces also accentuate and dramatize their effectiveness. At this moment of heightened purpose

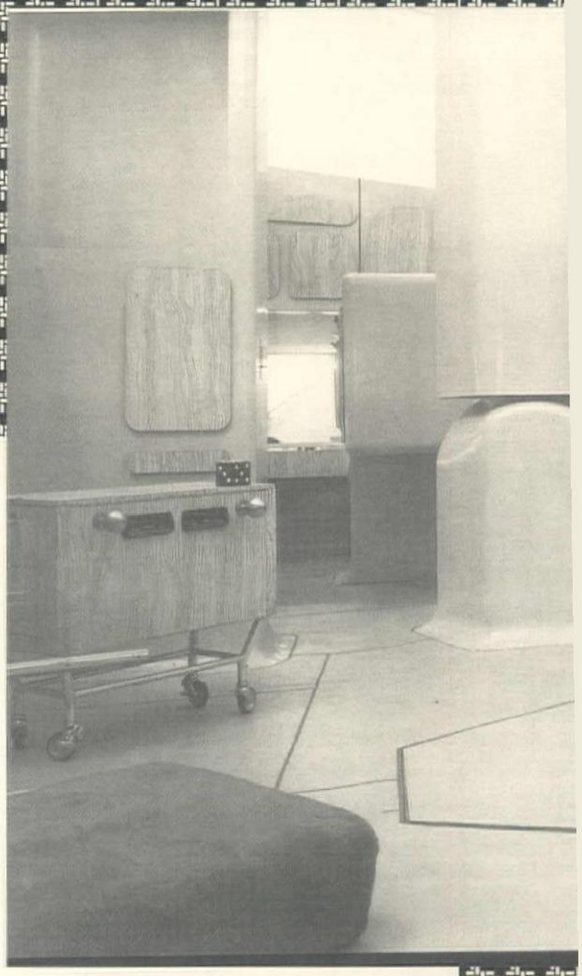
9. The basic Soane literature includes Dorothy Stroud, *Sir John Soane, Architect* (London: Faber and Faber, 1984); and Pierre de la Ruffinière Du Prey, *John Soane: The Making of an Architect* (Chicago: University of Chicago Press, 1982).

10. On this aspect of Soane, see Helene Furján, "The Specular Spectacle of the House of the Collector," *Assemblage* 34 (Dec. 1997), 57–92.

11. For a brief discussion of this aspect of Soane's library, see Sylvia Lavin, *Quatremère de Quincy and the Invention of a Modern Language of Architecture* (Cambridge, Mass.: MIT Press, 1992), 177–81.

→ House of the Future, Alison and Peter Smithson (1956–1957).

→ → Living room at the Eames House.



the surfaces generate not merely effects but *special* effects. And special effects, unlike ordinary effects, risk becoming obsolete, yet in that risk lies their contemporaneity.

If Soane's museum was also a house, most of Mies van der Rohe's houses were also museums. The Resor House (1937–1939) was largely organized around works of art and has been specifically related to Mies's later work on museums.[12] More important, the Miesian house frames and produces museological vision: everything within these houses, from garbage to furniture, is subjected to the concentrated attention of the museumgoer and thus absorbed into the logic of the museum, a museum dedicated to showing a permanent collection. The conflict between Mies and Edith Farnsworth can be framed as being about who would curate the exhibition space generated by the house, but it was also a conflict over the temporalities of the exhibition itself.[13] In the end, Mies installed the house by staging a permanent showing of domesticity, in which nothing temporary was permitted. This museological entombing of time is similarly manifest in the gaze solicited by the Resor House and its collage. Pasted onto the window, the landscape painting is endlessly on view. The landscape does not change, the view does not change, the gaze does not change. The house creates an eternal present by framing time as realized in a single display. The optical collapse of the museum house into the eternity of the modern was reinforced by Mies's interest in the single-space pavilion and the large-span building.[14] If curatorial practice is a means of opening architecture to a discussion of effects without reliance on phenomenology or essentialism—there has been no evoking of the essence of materials or the phenomenon of vision here—Mies must be considered a master. His interest in the effects of surfaces and in their collective coordination is the feature of his work that generates the most intense accumulation of modern atmosphere.[15] Moreover, this particular means of curating a modernist mood is what most radically distinguishes Mies's from Le Corbusier, who always remained less interested in the effects of surface than in its legibility. By the same token, Mies' mood was always modern, not contemporary.

In contrast to Soane's special effects, Mies was interested in allover effects, the uniformity of which was best underscored by the single-space pavilion. In these pavilions there is little differentiation from zone to zone as all is absorbed into a continuous set of conditions. This is not to say that the phenomenon of the house is not subject to change—the sun does shine in varying degrees on the Farnsworth House—but the effects aspire to constancy. Similarly, the Photoshop quality of the Resor collage allows no real foreground or background and creates instead spatial evenness and topological equivalence. In other words, while there are Miesian effects, there are no Miesian *special* effects. The manifold uniformity of his palette of effects operated for Mies to stage modernist time. Lacking special effects, the Farnsworth House is not contemporary. It was modern when it was new, remains modern today, and will always be modern.[16]

Although the Farnsworth House is often cited as the point of departure for the first version of the Eames House, the Eameses are better understood as the spiritual heirs of Soane, with a twist. Perhaps less compulsive as collectors than he, they were undoubtedly more obsessive as curators: domesticity for the Eameses consisted largely in rearranging their possessions, of which, like Soane, they had massive quantities.[17] But unlike the Soane House, which radically changed over time to accommodate his collections, the Eames House remained more or less constant while the installation of interiority was in a continuous

12. On the Resor House, both as a container for an art collection and in relation to the culture of collecting, see Cammie McAtee, "Alien #5044325: Mies's First Trip to America," in *Mies in America*, ed. Phyllis Lambert (New York: Abrams, 2001), 132–91. Myron Goldsmith said of Mies in a 1996 interview, "He was very interested in a container, whether it was glass or partly glass, a very simple container for all kinds of things. I think that that was in full swing about the time of the 50 x 50 House and beyond to the end of his life, Bacardí and the Berlin Museum and the other museum." Cited by Lambert, in *Mies in America*, 454.

13. Alice Friedman, "Domestic Differences: Edith Farnsworth, Mies van der Rohe, and the Gendered Body," in *Not at Home*, ed. Christopher Reed (London: Thames and Hudson, 1996), 179–92; and Alice Friedman, "People Who Live in Glass Houses: Edith Farnsworth, Ludwig Mies van der Rohe, and Philip Johnson," in *Women and the Making of the Modern House: A Social and Architectural History* (New York: Abrams, 1998), 126–59.

14. On the single-span building, see Lambert, *Mies in America*, 423ff.

state of reorganization. The Eameses' notions of "functioning decoration" and "object overload" are perhaps more important as keys to their curatorial strategies than as justifications for their excessive collecting. Their house was a stage for an ever-changing series of exhibitions linked conceptually by a consistent emphasis on the provisional and temporary view of the surface.

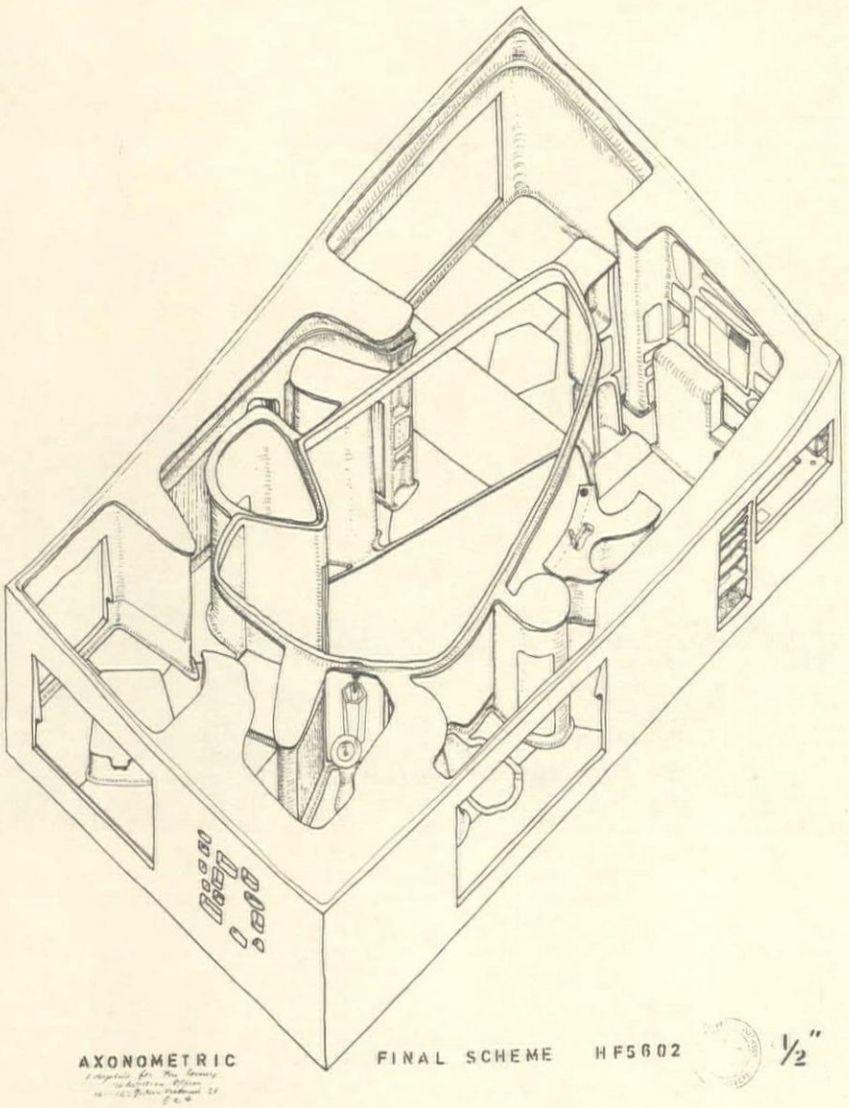
Every surface of the Eames House was partially covered by another surface: blankets on sofas, rugs on the floor, paintings suspended from the ceiling. Each of these partial surfaces was further kaleidoscoped by an excessive number of edges and frames: the large windows maximized rather than minimized the possible number of frames and mullions; why have only one square edge of a rug when three will do better; and so forth. Over time, the surfaces had less and less to do with the division of space or the articulation of structure and more to do with the proliferation of display opportunities. The interior became a topology of exposition, soliciting a continuous reconsideration of the curatorial impulse and producing spectacular effects. If Mies framed a permanent view, the Eameses multiplied the frame to produce not a view but an atmosphere of contemporary viewing. Like the relentless jump cuts of an MTV video, the agitation of the surfaces made the house into an enormous special effect.

The most significant technique used in the production of the Eames House's atmosphere and "look" is the superficiality of the surface. Although surfaces accumulate, they are conceived and exposed as thin picture planes: in their later work and in their work on actual exhibitions, the Eameses' ideal surface component became the moving filmic image without material depth of any kind. Peter and Alison Smithson, on the other hand, thickened the architectural surface, using its viscous porosity to stage a new array of temporal effects and using the categories of consumer culture to this end. The House of the Future (1956-1957), with its highly stylized mannequins, showroom atmosphere, and hip look, fully embraces the delights and evanescence of the postwar fashion house. In fact, the house, along with related projects such as the Appliance House, theorizes a new range of architectural durations. The Smithsons explicitly reframed modernism's approach to the installation of domestic objects and the treatment of surfaces as

15. Some of the vast literature on Mies to focus on this aspect of his work includes Robin Evans, "Mies van der Rohe's Paradoxical Symmetries," in *Translations from Drawing to Building and Other Essays* (Cambridge, Mass.: MIT Press, 1997), 233–77; and Rosalind Krauss, "The Grid, the/Cloud/, and the Detail," in *The Presence of Mies*, ed. Detlef Mertins (New York: Princeton Architectural Press, 1994),133–48.

16. Recently Mies has acquired some contemporaneity through the operations of Toyo Ito, Rem Koolhaas, and others. This contemporaneity allows one to distinguish between otherwise apparently similar interests in modernism today. Unlike contemporary architecture, such as that of Kazuyo Sejima, today's neo-modernism is simply current and mundane. In its disdain for special effects and the temporality of the provisional and experimental, neo-modern pragmatism cannot generate a contemporary project.

17. See Pat Kirkham, "Functioning Decoration," in *Charles and Ray Eames: Designers of the Twentieth Century* (Cambridge, Mass.: MIT Press, 1995).



← House of the Future.

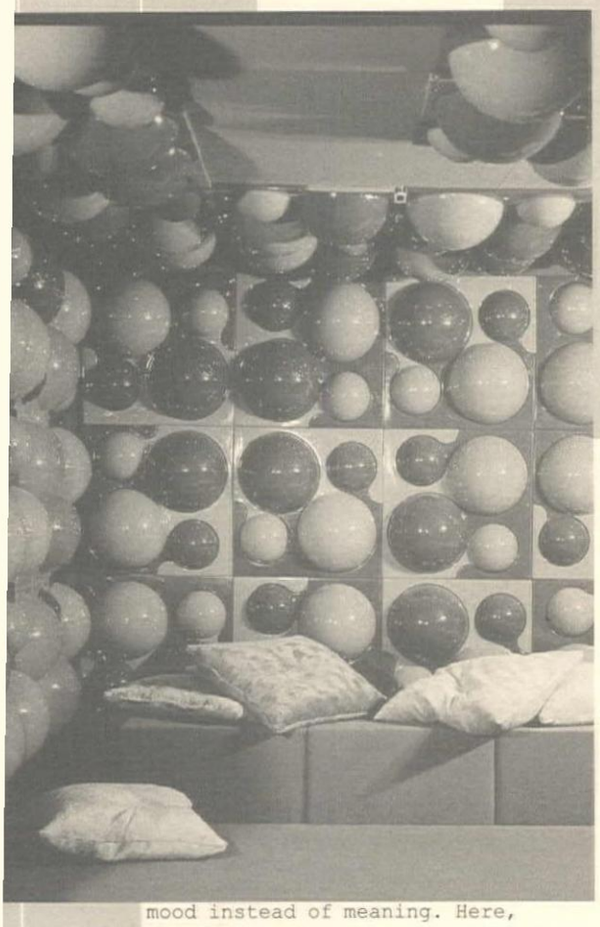
→ Verner Panton, *Visiona 2*.

opportunities for display in relation to different modes of measuring time. The House of the Future, for example, engorged appliances. Rather than be left exposed, as Le Corbusier's sink at the Villa Savoye stood isolated, worshiped as an enduring monument to the future, the Smithsons absorbed refrigerators, vacuums, and televisions into malleable walls. The kinds of consumables that gave shape and dimension to the architecture were specifically durable, and therefore temporal, goods. The car to which they likened the Appliance House was not the timeless, standard-seeking automobile of Le Corbusier but a temporary ideal subject to annual change. As they wrote, "The appliance house gives the appliances definite areas in which to operate, … defining the space, whilst the inside can be stripped-out and re-equipped when owner's or fashion's changing needs and methods demand."[18] The plasticity of the surface permitted durable goods to become poche, making whatever remained of the idea of permanence itself vestigial. Finally, if the thickened surfaces of the walls permitted the house to consume durable consumer goods, they also gave additional display space to objects of shorter aesthetic duration. Extreme fashion became the primary means of articulating the interior's visual field. The inhabitant of the House of the Future is literally being fashioned, in the process of being styled, getting "glamorous" and contemporary.[19]

By the 1960s the furniture showroom had become the site of the most advanced ideas of architectural contemporaneity. If architecture had once been called on to curate the contemporary through its installation of effective objects, architecture came to be displaced by that which it had once taken care of in a kind of Oedipal play. Verner Panton's *Visiona 2* environment for the Cologne Furniture Fair of 1970 and Joe Colombo's *Visiona 69* allow one to understand domesticity through the field of effects deployed by the temporary installation of decorative objects. These projects eliminate traditional notions of modern architecture, lacking above all else the ethical mandate of modernism: they have no depth, no morale, no rectitude. Instead, they have intense fashion sense. Such projects demonstrate the importance of presenting the surface as manifestly effective rather than tectonic when architecture seeks

18. Alison Smithson, "The Future of Furniture," *AD* (April 1958), 178.

19. One criterion that the Smithsons included in their "self-imposed programme" for the Appliance House was that it "contain a glamour factor." See Alison Smithson and Peter Smithson, "The Appliance House," *AD* (April 1958), 177.

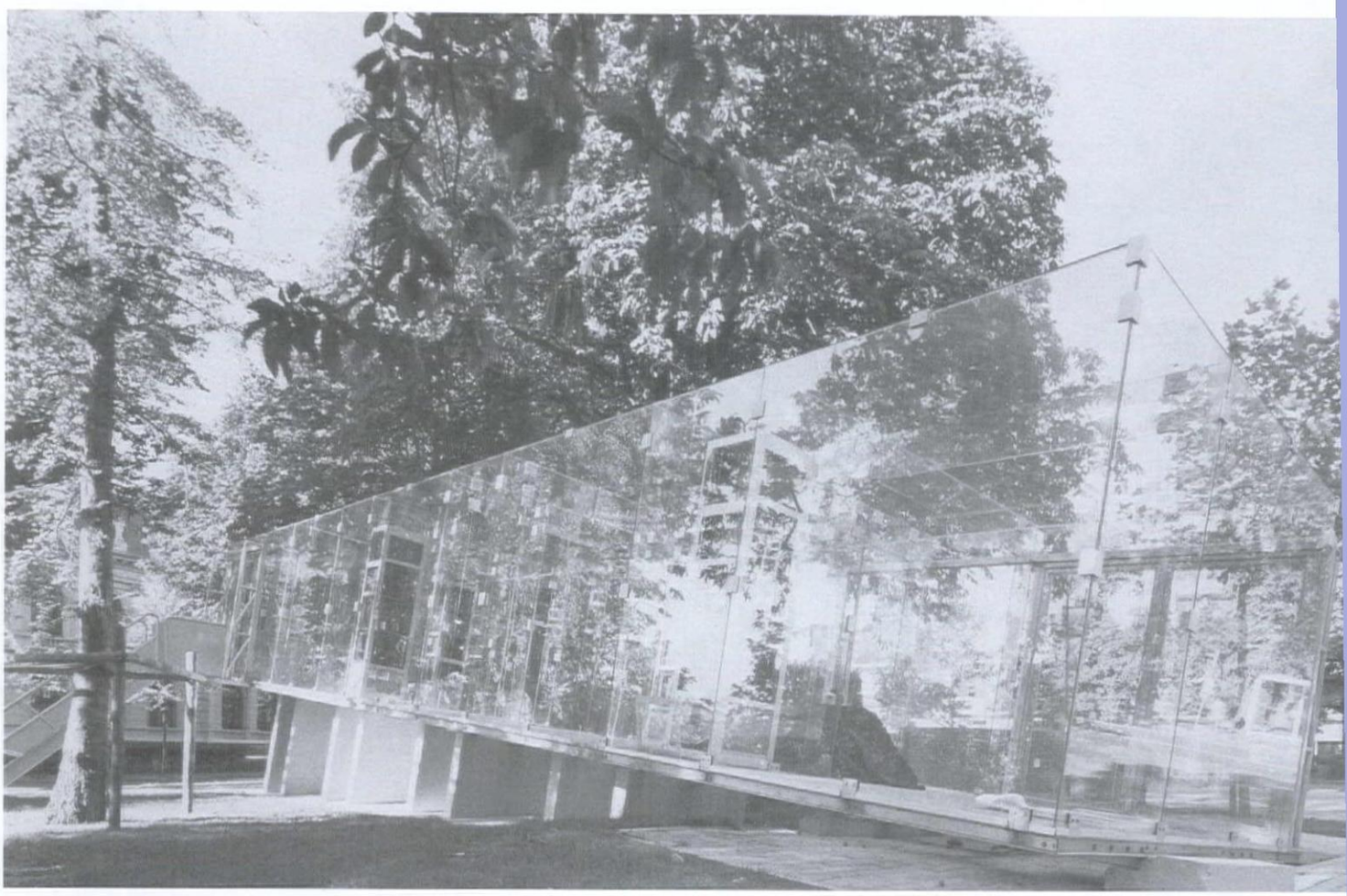


mood instead of meaning. Here, topologies of continuous color, texture, and animation eliminate any traditional "frame" of vision and thus provide no mechanism to ensure that the viewer gazes at a particular object. Without the concentrated gaze of the museumgoer, the objects have no source of temporal stability and provide none to the environment. Instead, a superabundance of special visual effects produces a kind of diversionary vision: not the distraction of the everyday, or the mundane, or the banal, but a visual mode that is at once diffuse and oversaturated.

These conditions have been observed before and have generally been described in terms of how they dematerialize architecture. A good example would be the standard interpretations of Bernard Tschumi's *Glass Video Gallery* built in Groningen in 1990. Rather than accept the intellectual legerdemain that is required in order to argue that in this case, glass and light are not materials and can cause dematerialization, we should understand them as symptoms of the reorientation of architecture toward a field of effects. As Tschumi operated on the glass box, the house lost its modern building and turned into an effectively program-free zone of special effects. At this moment of spectacularization, the *Glass Video Gallery* gained its capacity to have the "look" of contemporary architecture.

This is not a mysterious, indefinable, or purely phenomenological condition. In fact, the projects herein described constitute a measurable and even qualifiable body of research concerned with a particular set of issues and generating an identifiable palette of techniques. Of paramount importance has been the de-emphasis on volume, the logic of the plan, and the ethics of rationalism, in favor of atmospheres produced through the curation of the surface. Through accumulation, lamination, decoration, coloration, agitation, plastification, and environmentalization, these surfaces curated effective moods and, when the effects were special, catalyzed the contemporary. In fact, it is only through theorizing the effect that the mysteries of the *Zeitgeist* can give way to a substantive understanding of the contemporaneity and the shared sensibility of, say, Preston Scott Cohen's Torus House, Herzog and de Meuron's Ricola Headquarters, *and* Soane's house. Despite distinct vocabularies and disparate historical moments, these projects marshal curatorial techniques in unapologetic investigations into surface effects. Given these strategies, an effect may be understood as a condition that is detachable from the logic of causality. The greater the distance between the cause and the effect, or the greater the diminution of apperception of their link, the greater the sense of effectiveness. The most common technique of producing this distance between cause and the effect is distracted vision, a condition in which the visual field resists becoming a screen of legibility by making it impossible for attention to become concentrated and absorbed.[20] Thus, for example, modernist transparency appears as directly and causally linked to the material properties of glass: the modern movement made glass into a magic writing tablet that rationalized its effects. Contemporary luminescence, on the other hand, is an effect whose cause is not immediately visible and would be dissipated by enhanced legibility. Effects are dissembling, provisionary, and contemporary. Special effects are especially conditional and experimental; like an avocado kitchen counter or a Replicant, they sense their impending demise. But in incorporating an expiration date, their shelf life, however short, can be especially vivid. *The Matrix* had the hot look of today until it became banal and everyday. Special effects thus curate contemporaneity itself, and while the architecture of special effects yields to modernity a place in eternity, it claims for itself the moment of now.

20. On distracted and absorbed vision, see Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Illuminations*, ed. Hannah Arendt (New York: Schocken Books, 1986), 217–52; Michael Fried, *Absorption and Theatricality: Painting and Beholder in the Age of Diderot* (Berkeley: University of California Press, 1980); and Jeffrey Kipnis, "The Cunning of Cosmetics," *El Croquis* 84 (1997), 22–29.



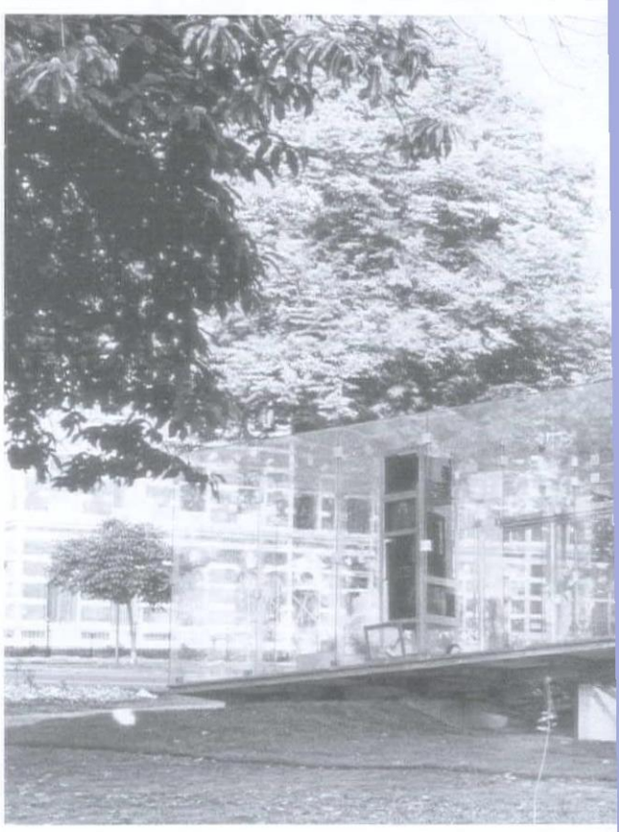
GLASS VIDEO GALLERY, GRONINGEN, THE NETHERLANDS
Bernard Tschumi Architects

The appearance of permanence (buildings are solid; they are made of steel, concrete, bricks, etc.) is increasingly challenged by the immaterial representation of abstract systems (television and electronic images). The invitation extended by the city of Groningen in the Netherlands to design a special environment for viewing pop-music videos offered an opportunity to challenge preconceived ideas about television viewing and about privacy.

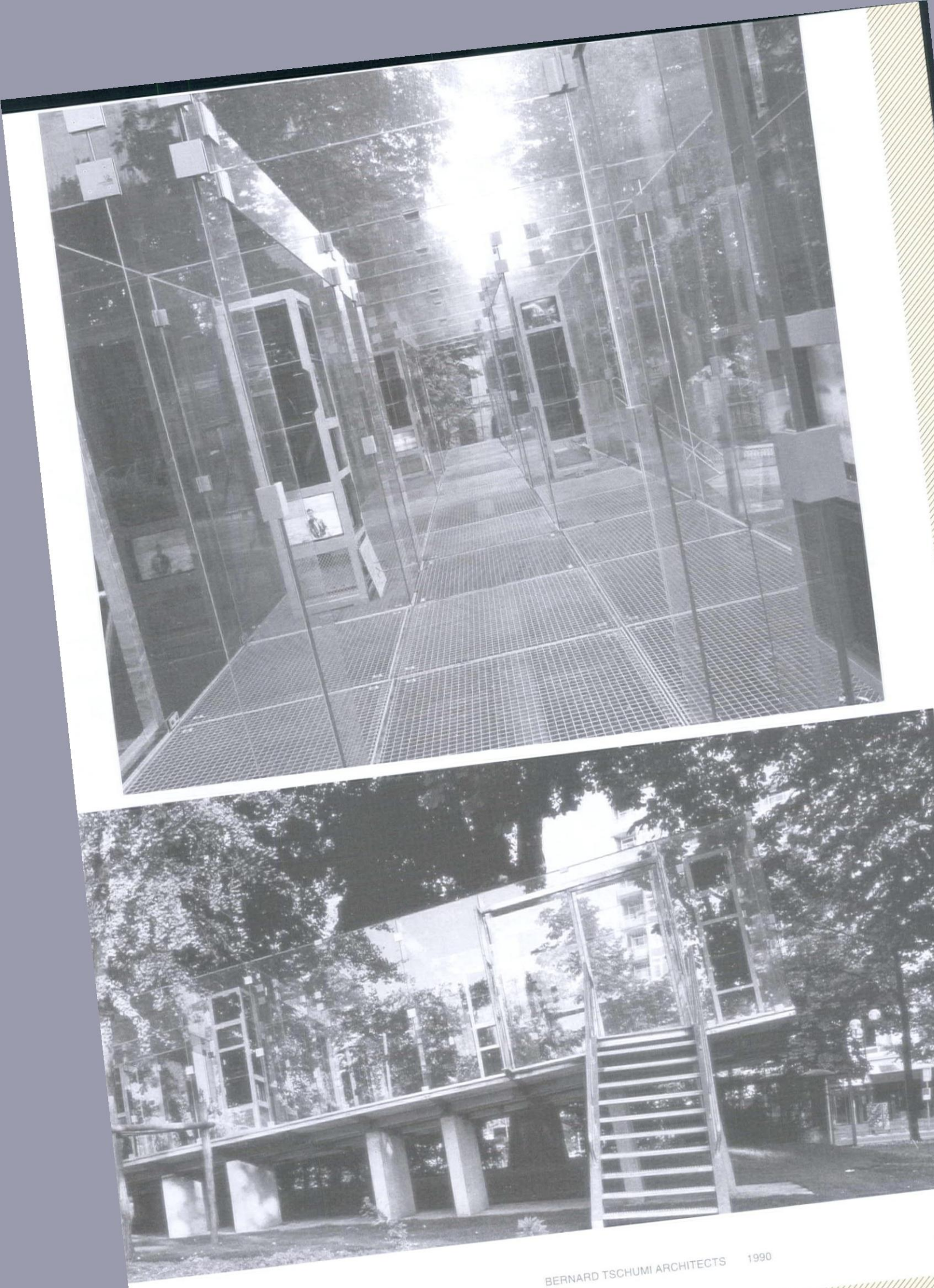
Instead of an enclosed and private space, we proposed its opposite: a glass video gallery as an inclined, transparent glass structure. The gallery contains a series of interlocking spaces defined only by horizontal and vertical "glass fins" and by the points of metal-clip connections. Located within are six banks of monitors used for screening videos.

In this new video plaza one watches and is watched simultaneously.

Note: The rhetorical "glass houses" of the modern movement often remained spatially traditional, because they were visually defined by support structures made of steel and by solid ceilings. In *Glass Video Gallery*, removing the glass means undoing the house, since horizontal beams, vertical supports, the top, and the sides are all made of identical structural glass.



35 GLASS VIDEO GALLERY BERNARD TSCHUMI ARCHITECTS 1990



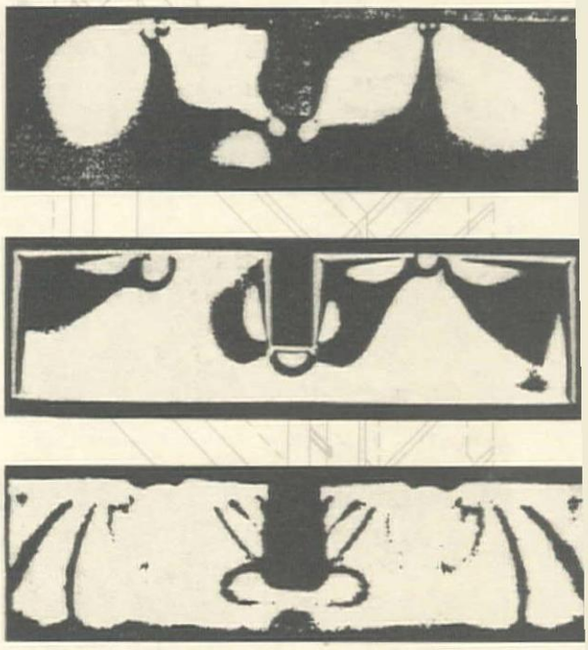
GLASS VIDEO GALLERY

BERNARD TSCHUMI ARCHITECTS 1990

36

Michael Bell

Eyes in the Heat: RSE



↓ Palazzo Littorio, Solution A, 1934, Giuseppe Terragni and Pietro Lingeri. Photo-elastic stress analysis: A study of a surface under loading. Stress and strain are revealed in a pattern of polarized light.

The Swimmer: Navigating the Inchoate Fabric and the Aftereffects of Economic Promiscuity

In the contemporary metropolis it seems we oscillate on the cusp of two spaces: while fully connected, plugged in, subjugated, over-coded, and prearranged by the mechanisms of urbanism, we are also adrift, loose and flailing in the malformed, unshaped spaces that the templates of commodification fail to make cohere. In these spaces—adjacent to the freeway, beside the house, behind the retail strip—the economic vectors that maintain and invent the shape of the city find nothing to carry or transmit them, let alone give them plastic presence. These spaces slip off us as water slinks in sheets off a swimmer emerging from a pool—wafting, cohering, flexing to, and unfolding from the body. Though the codes of the contemporary city are mediated by the intellect, it is hard to believe that we don't swim in and out of the vaporous, a-plastic spaces they construct, that we don't register their haptic presence as they slip on and off.

Introduction

Perspecta's Other Urbanism

RSE is an acronym for Colin Rowe, Robert Slutzky, and Peter Eisenman in the context of *Perspecta* circa 1971. Rowe and Slutzky's "Transparency: Literal and Phenomenal" was first published in *Perspecta 8* in 1963.[1] Peter Eisenman's essay "From Object to Relationship II: Giuseppe Terragni's Casa Giuliani Frigerio" first appeared in *Perspecta 13/14* in 1971, along with part 2 of Rowe and Slutzky's "Transparency" articles.[2] RSE is invented shorthand that heuristically conflates the two essays, written in what might be argued to have been a collective manner. Despite the historically decisive nature of both essays, Rowe, Slutzky, and Eisenman opened the door to rewriting the application of their work, particularly in relation to urbanism. As of 1971 all three writers had yet to engage a theory or practice of the city, even as the implications of their work were vulnerable to both contemporary urbanism's spatial expanse and its ubiquitous financial procedures.[3] Neither "Transparency" nor "From Object to Relationship II" examines the urban implications of its premises, yet each promised and implied themes of a broader and more comprehensive spatial field that was potentially urban or metropolitan.

The dispersed conditions of present-day cities such as Houston, Los Angeles, and the fringes of metropolitan New York—the latter-day postwar city of 2002 that was well under way in 1963—coerce new modes of vision from Rowe and Slutzky's and Eisenman's foundational work. Both essays assume an idealized subject discrete from local or actual context. RSE's subject is described as an "observer" without reference to the segregate nature of this position, a viewing subject apart from the urban field. Each essay is also predominantly architectural in its concerns. The experience of space is described at the scale of the building and understood through a pictorial reading—one that originates with the subject's frontal view. In order to sustain the potential of this early work by RSE, this essay describes a necessarily less ideal and segregate problem of the viewing subject. The term

1. Colin Rowe with Robert Slutzky, "Transparency: Literal and Phenomenal," *Perspecta 8* (1963). Rowe and Slutzky published "Transparency: Literal and Phenomenal (Part 2)," in *Perspecta 13/14* (1971).

2. Peter Eisenman, "From Object to Relationship II: Giuseppe Terragni's Casa Giuliani Frigerio," *Perspecta 13/14* (1971).

3. Rowe and Eisenman subsequently became widely influential in urban theory while Slutzky moved increasingly toward the practice of painting and away from architectural theory. His painting, however, has offered significant if not momentous challenges to the work accomplished with Rowe. Slutzky's architectural design, or his influence on architectural design, is best known in relation to the Diamond Houses and Painting conceived with John Hejduk in the early 1970s. These works were generally accomplished in architecture in relation to plan and to orthographic projection: they were not conceived in relation to the same mode of perspectival frontality that was explored in the early essays. In other words, their relation to architectural vision is primarily within the realm of drawing, and they imply a vision for the architect rather than for the building occupant. The Diamond Houses promised a new means of generating architectural space, but, more important, they also proposed a new means of comprehending space by way of understanding its pictorial techniques.

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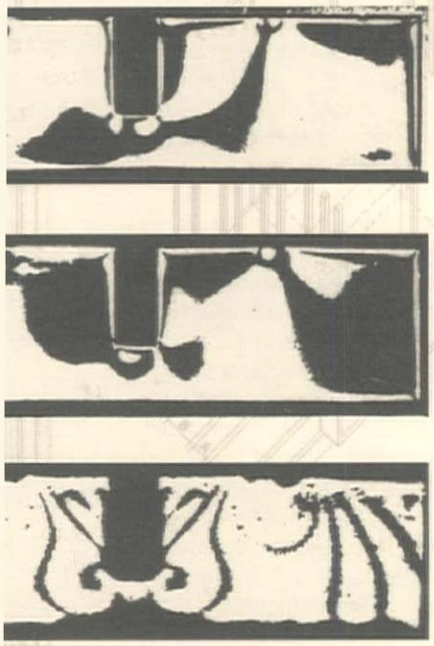

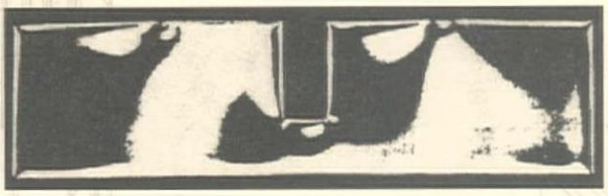

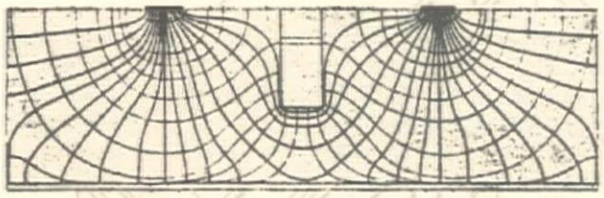

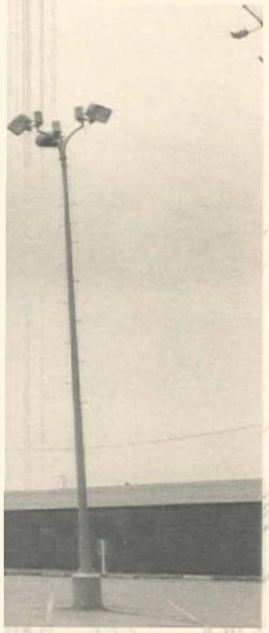

"observer" changes to "visual subject," and vision will be shown to reconcile itself with a broader array of architectural and urban technologies. Architecture and a visual subject are here placed in a broader and less heuristic realm of space and ultimately of power.

Urban Memory

The implications of RSE's visual models find their most significant urban corollary in the mid-1970s writings of José Rafael Moneo on Aldo Rossi. Here a potential alternative evolution to the development of vision and frontality in the works of RSE emerges in a theory of vision and memory. A line is drawn through the trajectory of each critic and architect—from Rowe to Rossi—that finds in each a unifying but challenging relation to Henri Bergson's theorization of memory and the role of the body in the sustenance and use of memory. An alternative architectural and urban present—a renewed urban subject—is revealed when these foundational architectural histories/theories are reread through Bergson, through each other, and through the vacated spaces of the contemporary city. Bergson's description of memory as a time-image and movement-image, as an intuited presence situated "between a thing itself" and its representation, extends Rowe and Slutzky's themes of phenomenal transparency and Rossi's and Moneo's theorization of material and memory.[4] It also provides a preface to Eisenman's work on simultaneity and frontality in his analysis of Terragni's Casa Giuliani Frigerio of 1939 and contextualizes Terragni's earlier optical experiments in photo-elastic stress analysis—work that

4. Henri Bergson, *Matter and Memory* (New York: Zone Books, 1988), 9. See also *Nobel Lectures, Literature, 1901–1967* (Amsterdam: Elsevier, 1970), vol. 1.

↑ Houston, 1998. Postwar city: As architects, we have inherited tools from foundational postwar critics and practices that struggle to provide direction in the contemporary city. This city, streamlined and produced with relentless efficiency as a vectoral process and exacting procedure, has, for many prominent urban theorists, been presumed to supersede the local acts of architects and architecture.

Moneo described Rossi's urban theories as a mode of temporal vision, one that can be aligned to Henri Bergson's theory of duration.

predates and supports themes in Eisenman's analysis of the later work. Together, these five architects/critics reveal a potential other postwar urban role for what Gyorgy Kepes called the "language of vision."[5]

Part 1
Rossi's Technological Amnesia

In his 1976 essay "Aldo Rossi: The Idea of Architecture and the Modena Cemetery," José Rafael Moneo implied that the foundations of Rossi's theoretical purpose relied on a self-imposed amnesia. Moneo claimed that Rossi had to adopt an "evasive" relation to broader urban technologies to secure the authority of architecture in the postwar city. Rossi's architecture was "deliberately forgetting the framework of the real, even at levels as evident and compromised as the technological one," wrote Moneo.[6] To the reader it seemed that Moneo was seeking the grounds to support Rossi, but the evidence of the contemporary city—the late-twentieth-century metropolis—made Rossi's propositions difficult to accept without reservation.

Moneo's essay began a process of reconciling Rossi's theory and practice of architecture within a broader and ultimately more self-sustaining field, in this case the postwar city of Western Europe and the United States. If Rossi's amnesia sought to protect the authority and autonomy of architecture from a metropolis characterized as both predatory and vicarious, Moneo's essay constituted a turning point. In addressing the self-sustaining role of the metropolis itself, Moneo seemed reluctant to accept a project of architectural autonomy and instead came close to proposing the autonomy of the metropolis as a fiscal, governmental, and power-laden instrument.[7] One could say the foundations of Moneo's own work were established in this cleft. Moneo's work from that date forward continually tests rather than affirms the autonomy of architecture as it seeks the dimensions and material facts in the construction of urban subjectivity.

Moneo described Rossi's urban theories as a mode of temporal vision, one that can be aligned to Henri Bergson's theory of duration and the temporal aspects of his theory of intuition and memory. In Rossi's work architecture offered what Moneo termed a "fleeting glimpse" of the city achieved in the suspension of analytic technique. Rossi's own writing, as is well known, proposed that buildings found their fullest urban meaning as a form of passive and undirected memory. This mode of memory was not attached to an active or strategic process of remembering; it was instead an unregulated and more ambient theory of memory as afterimage, no longer authored by the demonstrative needs of its host or limited by the position of the host's body. For Rossi the afterimage was understood to "construct the city"; it was a way to *see* the city and allowed the full comprehension of the city from the relative isolation of a subject's singular vantage. Architecture in this equation was less than literal yet more than phenomenal, in Rowe and Slutzky's terms. Furthermore, it was greater than a representation. Architecture as memory, as time-image, allowed Rossi to conceive of architecture as fixed, finite, and discrete yet also relieved it of its relative and artificial or overly local unity. If architecture was to be "a great representation of the human condition" even in its "fixed" literalness, memory allowed its subject to become urban within a wider field yet remain rooted in the isolation and sight of a subject.[8] Bergson's theorizing of duration often parallels Rossi's theory of memory. For Bergson the multiple and temporal comprehensions of movement both maintain and supersede the closure of the literal limits of form, the body, and location. "We perceive that being is … very numerous durations": our own duration is "caught between more dispersed durations and more taut, more intense durations." One moment is thus "extended to the whole of the universe," writes Bergson.[9]

For Rossi memory provided access to a dispersed world and an extended sense of time and continuity. Bergson's, and, one could say, Rossi's, architectural as well as human body is limited in mechanical extension yet always turned toward desired action even in its stillness. The body performs the essential "function to limit … the life of the spirit" and "indicates the parts and aspects of matter on which we can lay

5. Rowe with Slutzky, "Transparency" (1963), 22.

6. José Rafael Moneo, "Aldo Rossi: The Idea of Architecture and the Modena Cemetery," *Oppositions* (Summer 1976), 9.

7. See Massimo Cacciari, "The Dialectics of the Negative and the Metropolis," in *Architecture and Nihilism: On the Philosophy of Modern Architecture*, intro. Patrizia Lombardo (New Haven, Conn.: Yale University Press, 1993), 7. Cacciari's description of the metropolis is essential: "We are still in the *city* as long as we are in the presence of use values alone, or in the presence of the simple production of the commodity, or if the two instances stand next to each other in a non-dialectical relation. Whereas we are in the *metropolis* when production assumes its own social rationale, when it determines the modes of consumption and succeeds in making them function toward the renewal of the cycle."

8. Moneo, "Aldo Rossi," 5.

9. Gilles Deleuze, *Bergsonism* (New York: Zone Books, 1988), 77.

10. Bergson, *Matter and Memory*, 179.

11. Ibid., 180.

12. Ibid., 10.

13. Rowe's work in urban theory and design arrived in 1980 and was laid out in his book *Collage City*, written with Fred Koetter. Eisenman's work in urbanism began in the mid-1980s; today the division between urban and architectural work in Eisenman's practice is indistinguishable in terms of a figure/ground. Both Rowe and Eisenman essentially turned to history when they began to address urbanism directly, and they turned to history as it reveals itself in plan more so than elevation. Both Rowe and Slutzky allowed the role of architectural frontality to diminish in their critical work after these essays were written, and Eisenman did so in his practice. Not only the role of the facade diminished in their work as they turned their attention to urbanism;

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hold."[10] The body is local, and as such is overwhelmed by the movement and technologies of systems beyond its own boundaries. As the literal site of perception and subsequent memory, however, Bergson's body is prepared for action by continually altered degrees of memory. For both Bergson and Rossi memory is defined in gradients of direct or strategic usefulness. "Pure memory," writes Bergson, is a "nascent sensation" and "not essentially localized in any point of the body." Bergson's body, sited in actual space like Rossi's, "ceaselessly" presses to extend its own limits; it relies on memory to open "the door which the body" has left half open.[11] Memory in both cases extends and supersedes the closure and finitude of circumstances created beyond the local authority of the subject. For Rossi it extended the essential role of architecture in the construction of urban subjectivity, and it allowed him to imagine an autonomous role for architecture in the context of a technologically predatory city.

RSE: Phenomenal Memory, Literal Form

Rowe and Slutzky's "Transparency" and Eisenman's "From Object to Relationship II" offer a parallel to this theme of competing but not exclusive relations between contradictory readings of space or location. Rowe and Slutzky's essay opens with a reference to Gyorgy Kepes's analysis of overlapping and simultaneous figures in Cubist painting. Kepes proposed that the overlapping quality of forms common in Cubism gave presence to a new "optical quality," one that allows the simultaneity of competing readings of space without an "optical destruction" of either reading. Placing RSE's work in the context of Bergson's and Rossi's theory of memory gives the dialectical themes of Cubist visual techniques such as overlapping and simultaneity new dimension and means of transformation. RSE's thesis of visual subjectivity gains more multivalent potential; as such, the discretely located visual subject suffers less in insisting on its origin in the comprehension of space; memory coupled with vision extends the boundaries of circumstance.

In the contemporary city a project of architecture based on form, figure, or material is troubled by the degree to which the dimensional attributes of these urban realms have historically been understood in static terms. In this essay architecture is understood as an adjunct of managed capital or, in a broader sense, as a result of commodity or temporal computational systems. Far from emulating classical ideals of timelessness, architecture produced by the market systems that dominate the contemporary city is embedded with time-based processes of material and labor, yet these modes of time are rarely knowable or recoverable in the final form of building; the memory of the city's production is essentially inaccessible. As such, architecture finds itself in a dialectical relation to the wider field of the city. It seems to stand in opposition to the city. While architecture is derived from traceable processes and from market techniques and needs, the market remains unrecoverable in the visual, optic, or plastic evidence of architecture. The contemporary city compounds this scenario: What, one may ask, are we looking at when we look at the city? What would we find in its expanse, and how could architecture help cohere this field?

The techniques of literal and phenomenal space described by Rowe and Slutzky have ceased to operate as the "critical instruments" they sought in the wider field of the city. More important, they have ceased to fully describe the relations of power and territory that conflate in contemporary urban and visual subjectivity, in relation to either pictorial space or financial and material spaces. Yet the goals of Rowe and Slutzky and Moneo and Rossi remain strategically essential; like Bergson, each of these critics and architects offers processes of imminent as well as actual formalization. The theories of RSE were intended, as Bergson would have it, to "transcend space without stepping out from extensivity."[12] Each critic gives architecture dimensions beyond its discrete or literal limits, even as the literal limits are didactically enunciated. Each anticipated a wider urban field but as of 1971 had not yet speculated on its formation, in part to sustain the project of architectural autonomy.[13]

so too did the role of a visual subject other than the architect. Rowe proposed an urban planning by way of the collage techniques of adjacency. Like his theories of transparency, these were in part derived from Cubism and themes of juxtaposition and contingency, but they were mostly administered as a form of planning; they were thought of horizontally and the visual subject was the architect who witnessed their form in plan. Eisenman allowed site and local or historical adjacent forms to enter the transformation procedures that he had used to create his earlier independent and essentially physically site-less works of architecture. Again, this influence was predominantly accomplished in plan; even as Eisenman's early work on Terragni was based on a reading of space gained from elevation, his work on urbanism was at its outset related predominantly to plan. Rowe also provided an intellectual context for work on historical urban and architectural type by Rob Krier and wrote an essay in the 1979 publication of *Architectural Design*, *Roma Interrotta*, "A.D. Profile 20: Roma Interrotta," ed. and trans., Jennifer Franchina, *Architectural Design* 49, nos. 3–4.

← Giuseppe Terragni, Casa Giuliani Frigerio, 1939–1940.

It marked the description of a twentieth-century mode of vision and a visual subject for whom vision and duration are linked in a seeing of material and technological processes imbued in the space of the contemporary city.

↓ Photo-elastic stress analysis, circa 1934: A light source is polarized before it reaches the structural model. The camera—the analyzer—records a limited spectrum of light waves and thus is able to reveal a fringe pattern that emulates the stress and strain in the model. Photo-elasticity was the primary method of experimental stress analysis used to determine structural stability during the 1930s. As a form of finite-element analysis, the photo-elastic process reveals an observable relationship between optical patterns generated within a transparent material—a model—and the eventual behavior of the actual structure under loading. Photo-elastic tests provide a quantitative result: as a form of finite-element analysis, the processes rely on the discretization of both structural mechanics and the optical properties of light within a dialectic of tension and compression. The organization, behavior, and distribution of stresses within the surrogate material used in the modeling are witnessed in the patterns generated as a light is passed through the assembled model. As a control parameter, the light is captured by a camera with a polarizing lens; the polarization reduces the visible spectrum of light waves and delimits the complexity of the revealed stress patterns. The refraction of light waves caused by the material deformation coincides with the primary stress points, and changes in the velocity of the transmission of light as it passes through these materials reveal a readable pattern. This pattern coincides with the stress distribution in the model and ideally within the materials employed in construction.[16]

Eisenman's Terragni

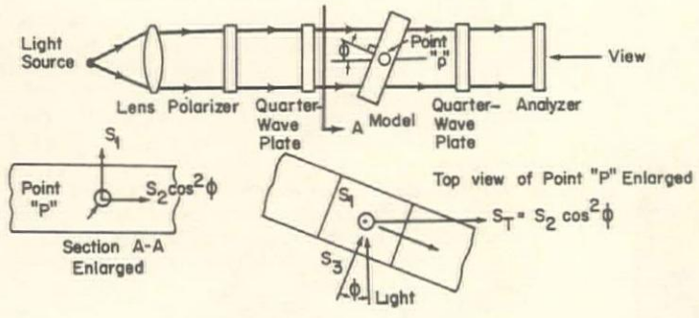
Eisenman accompanied "From Object to Relationship II" with diagrams drawn in part by Daniel Libeskind. The analysis presented what Eisenman called a "conceptual ambiguity" developed from the simultaneous use of the "two opposing conceptions of space" manifest in plan but understood frontally via elevation.[14] Eisenman's analysis depicted both concepts as simultaneously at work in Casa Giuliani Frigerio. The effect was to leave the origin of the building's spatial energy uncertain while maintaining a sense of potential and immanent, or, one might say, phenomenal, energy. At times Eisenman came close to revealing a theory of vision linked to matter that is similar to Bergson's theory of intuition, in which architecture instigates what Bergson called two fluxes contained and held temporarily within a third duration. Bergson, like Eisenman, relies on the term "simultaneity" in his description of these multiple durations. "Such is our first idea of simultaneity," writes Bergson. "We call simultaneous, then, two external fluxes that occupy the same duration because they hold each other in the duration of the third." Bergson's duration includes that of the viewer: "Our own simultaneity of fluxes … brings us back to internal duration, to real duration."[15] Eisenman's reading can be understood as a form of this duration: it creates a third form that encapsulates the expansion and contraction of two types of space and implies that the subject and the object are fused in a third perceptual space.

In his analysis Eisenman moves the subject's frontal comprehension of space from the actual and therefore relative vantage point to the represented and therefore intuited understanding of the whole work. In doing so, he places both the subject and the object within a third duration—a third field—that allows the autonomy of each participant yet also allows presence only through the other body. Eisenman's interest in the "ambiguity" of or the conceptual relations between competing spatial readings in Terragni's architecture was intended to reveal an autonomy founded in this ambiguity: architecture resists a static and foreclosed finitude as it evades easy reading and definitive origins. In the context of the contemporary city this autonomy has been potentially inverted: it is the autonomy of financial and material processes that Moneo feared Rossi was not acknowledging and that today render most building inadvertently autonomous.

Part 2

Terragni and Lingeri's Photo-Elastic Experiments

His analysis of Giuseppe Terragni's work marked the arrival of Eisenman's tremendous influence on architectural and cultural criticism. However, it can also be understood as a turning point that made more culturally dominant modes of linguistic criticism not only possible but perhaps more influential. The project of linguistics itself and the application of language theories to architecture became the central foundation for other, more prevalent architectures, such as those of Robert A.M. Stern and Michael Graves, that made the themes broadly accessible.[17] Eisenman's



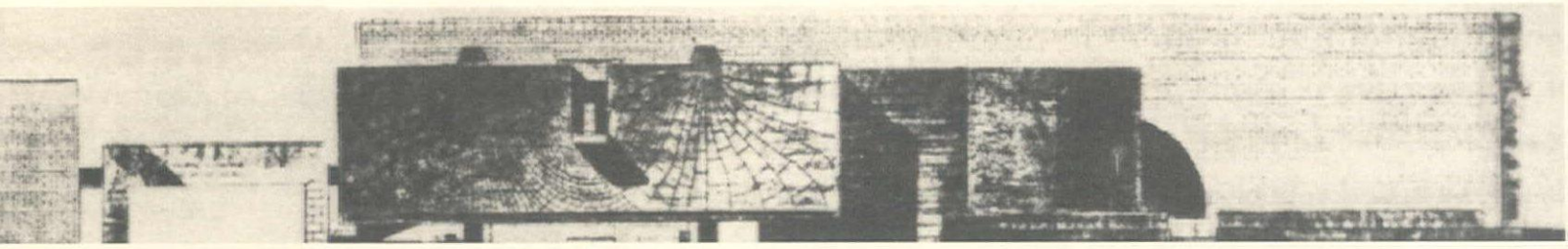
14. The first considered space as centripetal and seeking a central origin. This concept was understood to produce space in a subtractive manner; mass is seen as cut away from a preexisting solid. The second concept of space is shown to be centrifugal: a planar layering of space that tended outward from an assumed yet uncertain peripheral origin.

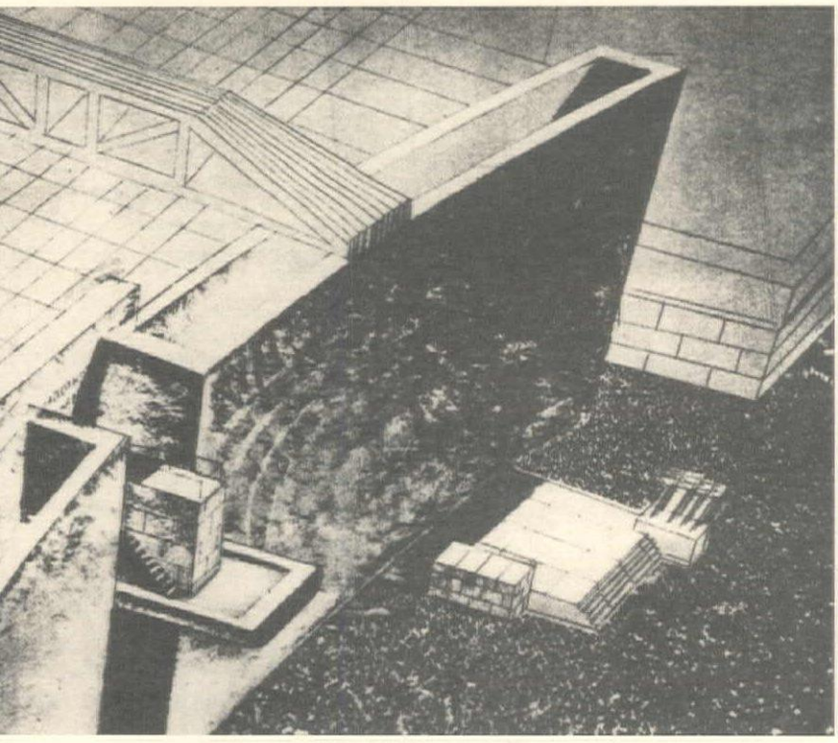
15. Deleuze, *Bergsonism*, 80.

16. R.C. Dove and Paul H. Adams, *Experimental Stress Analysis and Motion Measurement* (Columbus, Ohio: Merrill, 1964), 288.

17. In the United States themes of duration and of memory as instigated by Aldo Rossi found counterparts in a different and essentially more linguistic mode of memory, or, one should say, remembering. Semiotic and historical trajectories conceived by Robert Venturi, Denise Scott Brown, Robert A.M. Stern, and Michael Graves among others gained wider appeal and easier application to the commodity processes at the heart of U.S. market practices. These practices dominate the latter-day metropolis's eventual form. In a

↙↓ Palazzo Littorio, Solution A, 1934, Terragni and Lingeri. The pattern of the photo-elastic process is revealed in the proposed building surface. The center cutaway would provide a speaking platform for Mussolini to address his audience.





work has not entered and perhaps never desired to enter the stream of general urban commodity or media processes, as has the work of Graves or Stern. It may now be possible to suggest that the linguistic trajectories represented on one hand by Eisenman and on another by Stern have suppressed the technical aspects of material and mechanical properties or knowingly interpreted their prevalence from an existential position. In this essay Eisenman's work on Terragni is an essential yet unrealized key to Terragni's earlier work on photo-elasticity, a process that Terragni employed for the structural analysis of his proposal for the design of Palazzo Littorio in 1934. Terragni, with Pietro Lingeri, used a set of photo-elastic stress-analysis models while designing Palazzo Littorio, Solution A in the early 1930s, a work preceding Casa Giuliani Frigerio by five years. Terragni's work in photo-elasticity links themes of transparency in the work of Rowe and Slutzky, and material and memory in the work of Moneo and Rossi. More important, it predates Casa Giuliani Frigerio—the building Eisenman analyzes—and suggests that the conceptions of space described by Eisenman could not have been possible if not for these early experiments. Terragni's work in optics is more extensive than has been historically noted.

Terragni's work on photo-elasticity literally conflates themes of classical visual subjectivity with materials and themes of technology and industry. In the context of RSE, vision revealed a structure of conceptual relationships "which accrue to relationships between objects, rather than to the physical presence of the objects themselves." The photo-elastic process is based in the physical presence of the objects themselves: it is matter that one is seeing, and this seeing is achieved as a conflation of classical perspective and chemical engineering and lens techniques. It marked the description of a twentieth-century mode of vision and a visual subject for whom vision and duration are linked in a seeing of material and technological processes imbued in the architectural and urban space of the contemporary city.[18]

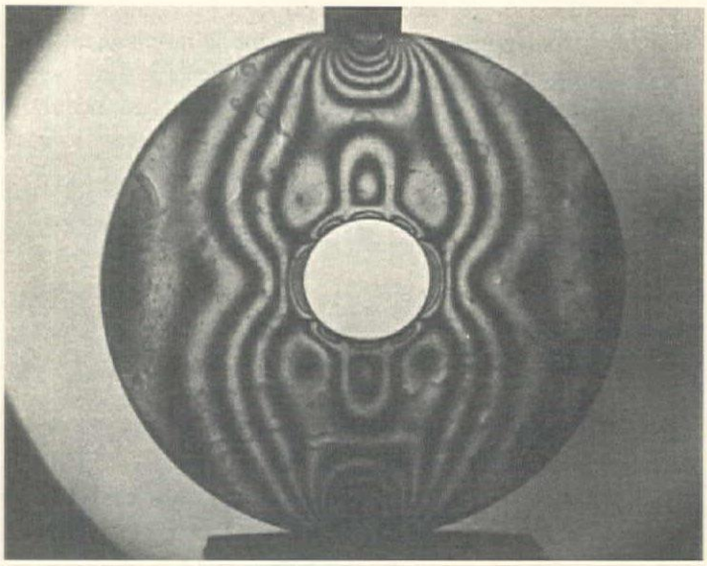
To date, the most significant attempt to place the role of Terragni and Lingeri's work in photo-elasticity is Manfredo Tafuri's "Giuseppe Terragni: Subject and Mask."[19] The essay questions the aberration these tests seem to be in Terragni's career but does not examine the intrinsic properties of photo-elastic processes themselves. Tafuri is forced to reconcile their significance in the design of Palazzo Littorio within the linguistic prerogatives that dominated his own critical writing. He was unable to synthesize his linguistic research and his sometimes-startling structural and mechanical insights. His analysis was at times startling in its insight and in the degree to which it intuitively sensed the potential

market- and media-based economy the works of Venturi, Scott Brown, Stern, and Graves entered the very bloodstream of communications and began a process of suturing the inchoate fabric of a U.S. terrain vague with a network of semiotic bridges: the city was reconceived as a linguistic artery connected by signs rather than material. If economic practices had rendered a vacant postwar metropolis, it was possible to rebuild it with the sign systems of media.

18. See Noam Chomsky, *Synthetic Structures* (The Hague: Mouton, 1965), 16. Eisenman's analysis was influenced by Chomsky's early linguistic research on the potential of "deep structure." In the context of Chomsky's research, the term "deep structure" described the underlying rules and relationships that constitute an essential yet not necessarily transparent or visible grammar. Through deep structure an infinite set of syntactic transformations could be generated. "The deep structure of a syntactic description determines its semantic interpretation," wrote Chomsky, but there may not necessarily be any similarities between the surface and the deep structure of a linguistic or formal appearance. In fact, such relationships may "manifest sharp incongruencies" between "the visible surface structure and its deep structure of underlying relations." Eisenman proposed that an architectural syntax was likely to be found in the ambiguity between these conceptual and actual relationships: the syntax was to be found in the condition that was essentially temporal and based in the flux between more stable realms.

19. Manfredo Tafuri, "Giuseppe Terragni: Subject and Mask," trans. Diane Ghirardo, *Oppositions* (Winter 1997), 1–25.

Like Eisenman, Rowe and Slutzky begin their work with a dialectical pairing of apparently competing tendencies—transparency examined in literal and phenomenal terms.



→ Palazzo Littorio, Solution A, 1934. Terragni and Lingeri. Photo-elastic stress analysis: A photo-elastic study of a surface under loading. Stress and strain are revealed in a pattern of polarized light.

implications of the photo-elastic work. For example, although Tafuri recognized that what he called the "wall" that composes the primary facade is actually a "box-like structure," he did not recognize that this reading changes not just the mechanics of its cantilever and its rotational tendencies but also the facade's ability to "speak" or be "read" (Tafuri's words). Tafuri concludes his critique by stating that he is unsure why the isostatic lines of the photo-elastic process are represented on the proposed final surface of the building.[20] His analysis focuses instead on the conclusion that Terragni had reduced these "forces" to an "arabesque," to an "apodictic word." The building was thus forced to be understood as "speechless" and "silent" and as such ultimately corroborated Tafuri's existential interpretation. Had Tafuri examined the history and implications of the photo-elastic process, he may have concluded that Terragni's intentions were instead to open architecture's visual techniques to new instruments and new means, and to thus transform the visual subject's relation to technology and to power. Tafuri also suggested that the shallow curve of the structure is not sufficient to define the piazza in front of Palazzo Littorio, not noting its role in providing a mechanical ballast or stiffness to the suspended structure.

There were, of course, pragmatic needs for the photo-elastic analysis: the scale of the cantilever that Terragni and Lingeri proposed in Solution A necessitated that the architects test the potential stress and strain in the proposed structure. Had Tafuri situated Terragni and Lingeri's ambitions within the techniques of the photo-elastic process itself (the science and optics of these techniques were being perfected as the building was designed) he would potentially have diminished the role of linguistics in his conclusions and unanchored a project of frontality from a project of linguistics and semiotics. An examination of the photo-elastic process would have transferred a linguistic or sign-based critique to an inquiry focused on perspectivalism, optics, lens/camera mechanisms, and chemistry and material mechanics. The final mode of subjectivity would have been one of visual subjectivity linked to material intuition, and the role of the architect would have migrated toward a realm of newly acquired visual and technical procedures. With this change, the existential dimensions of Tafuri's critique might have been forced to migrate as well, toward a subject whose comprehension of visual depth and space would have technological dimensions.

The photo-elastic tests by Terragni and Lingeri were done to ensure equilibrium as the necessary and final state in the design of the massive cantilever of Solution A. In choosing to represent the residual and latent forces—the surplus energies—at work in the creation of this political spectacle, Terragni and Lingeri created a visual critique of metropolitan dialectics. In doing so, they also created a crisis in the arena of metropolitan subjectivity. This vertical surface is an expansive visual field that delivers to Mussolini the pictorial gaze of an audience whose subjectivity it both conscripts and ironically severs.[21] In transforming the perspectival depth of a viewing subject into the thermodynamic modeling of light as a material strain within photography, Terragni and Lingeri effectively flattened the distance that segregates subject and object or subject and spectacle. In other words, it is possible to read this pictorial field as expanded and also foreclosed or quite literally foreshortened. In essence this delimiting of the pictorial field is the architecture of Palazzo Littorio.[22] It forms an artificial contrivance and the model of nature's duration—a frontalized and at least partially classicized architectural design whose structural mechanics instigate a migratory set of forces that mimic the duration and temporary nature of organic life. Tafuri's attempt to analyze Palazzo Littorio asked what these forces represent and indeed whether they were intended to represent anything at all. I would instead suggest that they were intended not to represent but to create a new horizon for architectural space, based on the intuition as well as the literal comprehension of material and mechanical duration. In doing so, they renew our own duration in respect to material and to the power relations inherent in material production. Architectural frontality and perspectival design are involved with and reveal modes of space and of power that have dominated twentieth-century fabrications of capital, power, and political authority. Can these modes of vision be applied to a visual comprehension of the postwar or contemporary city?

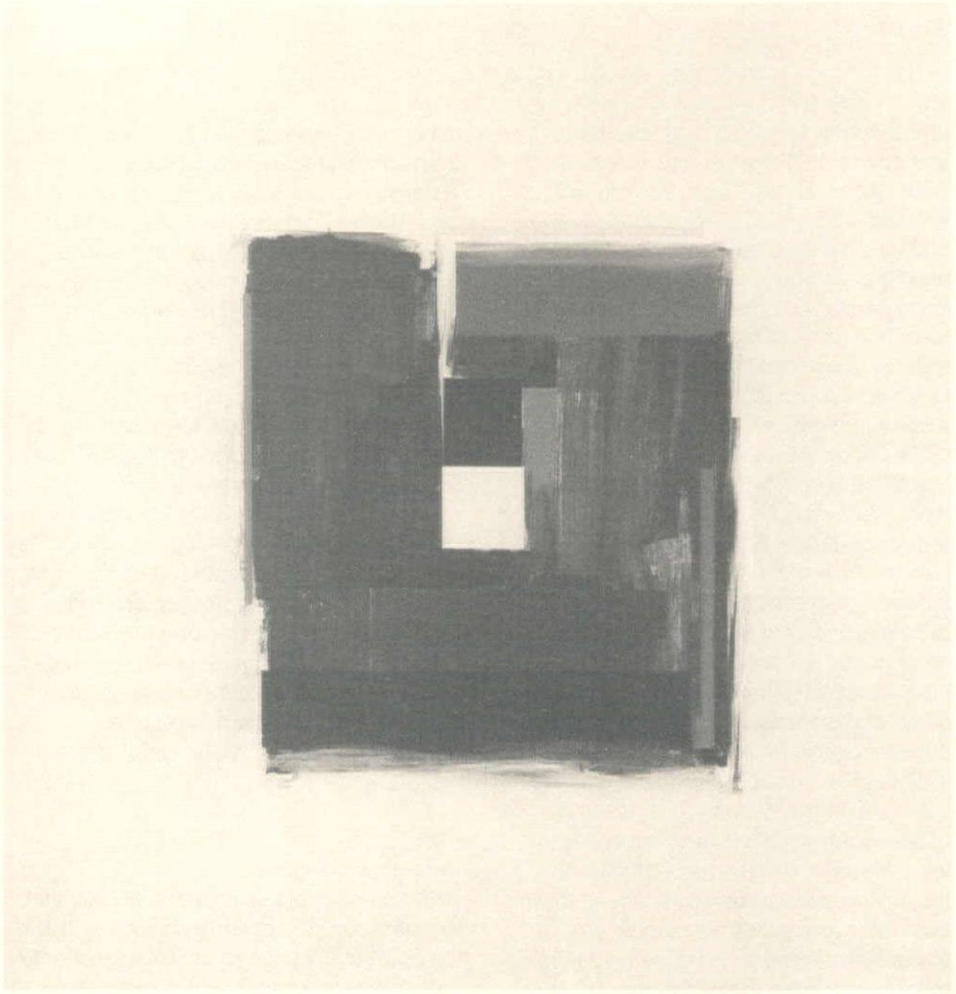
20. Ibid., 6.

21. The camera obscura, writes Jonathan Crary in "Modernizing Vision," "defined an observer who was subjected to an inflexible set of positions and divisions." The camera obscura required an acquiescent subject, one who knew where to stand. Crary's observer is "a nominally free sovereign individual" standing in a "quasi-domestic space separated from a public exterior world." Jonathan Crary, "Modernizing Vision," in *Vision and Visuality: Dia Art Foundation Discussions in Contemporary Culture*, ed. Hal Foster (Seattle: Bay Press, 1988), 30–32.

22. The photo-elastic work of Terragni and Lingeri delimited the mechanical as well as the physical axes of materials used in the model; the model was less complex than the building proposal. The model concentrated events at a crossroads where the distress of the material would reveal itself. The polarization of the light waves that allow the photo-elastic process to be recorded limits the visible waves of the spectrum; the complexity of deformation in the model is also limited to the plane. This dialectical modeling limits the usefulness of the results, but it also reduces the complexity of techniques at play, thereby setting

Slutzky and Ockman's description of a series of paintings by Slutzky shows a layering of space that is consistent with theories in earlier essays by RSE and with Slutzky's education under Josef Albers at Yale.

↓ Robert Slutzky, *Untitled*, 1983.



Part 3

Preserving the Phenomenal

Like Eisenman, Rowe and Slutzky begin their work with a dialectical pairing of apparently competing tendencies—transparency examined in literal and phenomenal terms. For Rowe and Slutzky the theme of transparency leads initially to a didactic reading of unresolved contradictions: transparency is a key theme of simultaneity, yet it does not always reveal content or origins, thereby affording a form of ambiguity. Rowe and Slutzky describe literal transparency as a "quality of substance as in a glass curtain wall." Conceptually, however, the main goal of the essay was to reveal the potential usefulness of phenomenal transparency. Here the term may mean "an inherent quality of organization," an understanding, rather than a revelation, of orders. In this second reading the term "transparent" ceases to be "that which is perfectly clear" and becomes instead "that which is clearly ambiguous." The distinction laid the groundwork for an uncharted realm of phenomenal perception that Rowe and Slutzky left unexplored. Indeed, they warned against a hasty exploration or delineation of this form of space, stating at the conclusion of "Transparency" that the authors intended only to reveal that there were two species of transparency and that it would be advantageous not to confuse them. RSE all concluded with a proposition that the ambiguous held potentials that neither apparently polar conditions nor less ambiguous positions could fulfill. The ambiguous relation offered a promise of uncharted and immanent discovery; the boundaries of the literal were extended.

Slutzky's Topologies and the Post-phenomenal Space

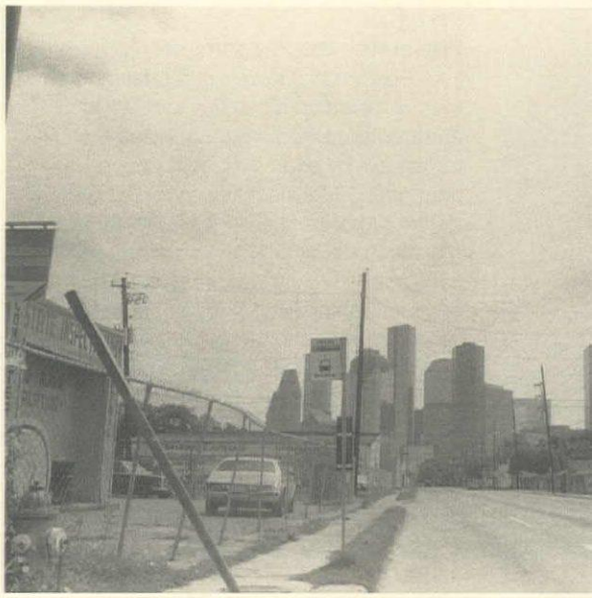
For the most part, both "Transparency" and "From Object to Relationship II" have been left unexamined in regard to any fundamental criticism of their near canonical stature. Slutzky, however, offered an extension of the theories launched in "Transparency" in a 1984 essay co-written with Joan Ockman titled "Color Structure Painting," published as part of the catalog to his exhibition *Robert Slutzky, 15 Paintings*. Slutzky and Ockman's description of a series of paintings by Slutzky shows a layering of space that is consistent with theories in earlier essays by RSE and with Slutzky's education under Josef Albers at Yale. What is not consistent in the work is the introduction of what Slutzky and Ockman refer to as an oculus—literally, a centralized square painted in the same hue as the torus-shaped periphery of the compositions. The oculus is common across the collection of paintings. Slutzky

the stage for a less complex comprehension of the movement than would occur in the actual building. The model does not reveal the full complexity of stress and strain. Nonetheless, it linked the comprehension of material properties to that of vision and set the stage for a form of visual duration.

At the crucible of this scenario, K. Michael Hays and Sanford Kwinter provide a polar basis for negotiating a new realm not for transparency but for an urban subject.

and Ockman refer to it as a "counter-eye" that confronts "the artist and spectator alike." According to "Color Structure Painting," this oculus turns "space inside-out" and, "like a torus-glove," makes "figure and field ambiguously one." The counter-eye instigates a transformation of the painting's frontality and, conversely, of vision's role in positioning the self as the origin and object of space. These paintings reconfigure their initial field and the field occupied by the viewer in a processional unfolding of space that at one level is didactically willful even as the results remain ineffable. Slutzky's pictorial mechanics remain firmly within dialectics; indeed, the spatial ambiguity these paintings instigate relies on the canvas as an originary surface. Slutzky also still posits his subject—at least temporarily—as the origin of the spatial field before undoing this origin, in some sense plastically unloading it. Though essentially menaced by these initial structures, Slutzky's oculus under duress offers an intuitive grasp of the inferable, a chance to seize and then occupy space, to walk into space and away from the composition's topologically transformed surface. Here we leave the relative and enter the expanded field, but not prior to a crisis in which anticipated spatial relationships are challenged and cataclysmically transformed.

While Rowe and Eisenman moved on toward proposals for an urbanism based either in collage or in historical transformation, it is possible to suggest that both relinquished the role vision might have played if it had followed an evolutionary path from their seminal work. In other words, had RSE's discoveries in visual subjectivity been applied to an urban rather than an architectural visual subject, it is possible that the city could have coerced a new mode of vision, derived in part from operations that extend the early work of RSE, as Slutzky advanced it in his painting. The postwar city would be comprehended and seen not as a newly reconstructed historical type—a mechanical, pictorial, or historical form—but as a phenomenal comprehension of urban form, one produced by dominant techniques of capital, production, material, and commodity practices as well as new means of communication. When literal transparency predominates, it seems possible to claim that architecture finds itself exacerbated by the predominance of the city. When phenomenal transparency predominates, it seems possible to claim for a viewing subject an emergent, undefined, and potentially useful space.



↑ Houston, 1988.

Part 4

Smooth or Negative

At the crucible of this scenario, K. Michael Hays and Sanford Kwinter provide a polar basis for negotiating a new realm not for transparency but for an urban subject defined in relation to commodity processes and infrastructural technologies: between the economic and the technical practices of urbanism. Their texts, published in 1996 and 1998, reveal in each theorist a slightly personal dimension, leaving a mutual strife undeclared yet palpable. The passages are brief but poignant,with the theorists' implicating each other and the participants within each milieu. Hays's introduction to *Architecture Theory since 1968* concluded with the acknowledgment that a younger audience may have such an "altogether altered" relationship to consumption that it may be hesitant to engage in practices that resist the dominant productive economies of the city.[23] Hays suggested that an overt resistance to the commodity processes that underlie an entire generation of theorists and practitioners whose work rests on the negative

23. K. Michael Hays, introduction to *Architecture Theory since 1968*, ed. K. Michael Hays (Cambridge, Mass.: MIT Press, 1998), xiv.

dialectics of Theodor Adorno was under tremendous criticism, in part due to the pervasiveness and growth of capital economies in the 1990s. The production of architecture based in the work of Adorno and intellectual descendants such as Manfredo Tafuri and Massimo Cacciari, Hays wrote, may no longer hold appeal to younger architects. In a response that was left rhetorically undirected to a particular architect, critic, or theorist but whose target was clearly Hays and the critics who base their work in Adorno, Kwinter, in his "Far from Equilibrium" column in *ANY*, was more blunt. He described anyone who "still" relied on the "efficacy of negative dialectics" as "gullible"; "what matters is infrastructure."[24] Kwinter asserted that "form and architecture can no longer make the slightest historical claim on our attention."[25] For Hays, and for a generation of critics and architects who had relied on an intellectual lineage connecting Adorno and Tafuri, the sea change drawn here is epic in scale. Hays's coda suggested that the role of negative dialectics and the preservation of the unrevealed remain useful in the face of significant political and productive crises in both urbanism and architecture but, more important, within culture. I personally agree. The sustained expansion of the U.S. economy and the absence of a significant socialist counterpoint had affected the degree to which a new generation sought refuge from or options to the market. As both a practical and a philosophical position, the tendency toward engagement was increasingly palpable during the 1990s. Here is the potential locus where the term "phenomenal" might renew its meaning in architecture and in urbanism. In rejecting the conclusion that "form is the only rightful end of architectural propositions," Kwinter supported his long-term agenda to move architectural and urban criticism toward theories of movement and change.[26] Kwinter, in effect, negates form itself and its subsequent role as the host to and generator of crises within Adorno's dialectics. Without form, one need not resort to negation.[27] In rewriting the work of RSE through a lens afforded by Bergson, one may at least partially alleviate the dichotomy of Kwinter's and Hays's positions; the dialectics of location and origins of space are maintained, yet these dialectics cease to be the cause of persecution. Bergson's memory is a subject originated in practice, yet it does not require negative practices because it is able to account for change and for newly extensive limits beyond the body's location.

Eyes in the Heat

Casa Giuliani Frigerio is perhaps the closest Terragni ever came to eradicating the vestige of perspectivalism and frontality in his work, and it exemplifies a phase of design in which Terragni effectively unanchored the comprehension of form from vision. In doing so, he clarified the spatial potential of material/matter itself, bringing to a cognitive level an ideal of material duration as a replacement for perspectival relativity. This model has surprising relevance today in the seeing of the contemporary city. This is the exacerbated realm from which a contemporary application of Rowe and Slutzky's and Eisenman's writings can re-proceed in relation to Terragni and Lingeri's photo-elastic research. The facade of Palazzo Littorio is quite literally a "suppression of depth" and a "contracting of space," as well as a defining of "light sources." Far from a mode of negative criticism or Rossian amnesia, it is an alternative evolution in how the role of vision could have played itself out in the work of RSE and within the broad array of technologies that architectural production has yet to address in its dealings with the contemporary city.

24. Sanford Kwinter, "Playboys of the Western World," *ANY* 13 (1996), 62.

25. Ibid., 62.

26. Ibid., 62.

27. Theodor Adorno, *Negative Dialectics* (New York: Continuum, 1995), 231. "Freedom can be defined in negation only. Corresponding to the concrete form of a specific unfreedom."

37 HOUSTON SZE TSUNG LEONG 1998

HOUSTON SZE TSUNG LEONG 1998 38

AFTER THE 1995 HANSHIN-AWAJI EARTHQUAKE IN KOBE, JAPAN, SHIGERU BAN CONSTRUCTED A PAPER-TUBE CHURCH AND EMERGENCY HOUSING FOR THE POPULATION AFFECTED BY THE DISASTER.

IN 2001, FOLLOWING A SIMILAR EARTHQUAKE IN INDIA, BAN'S ORIGINAL DESIGN FOR HOUSING WAS MODIFIED BY THE ARCHITECT KARTIKEYA SHODHAN TO SUIT THE LOCAL CONDITIONS. SHODHAN, WHO WORKS IN AHMADABAD, ALSO COORDINATED THE CONSTRUCTION OF TWENTY PAPER-TUBE HOUSES ON-SITE IN THE TOWN OF KUTCH. FOR TWO YEARS *PERSPECTA 34* CO-EDITOR AMEET HIREMATH CORRESPONDED WITH KARTIKEYA SHODHAN, FOLLOWING THE DEVELOPMENT OF THE PROJECT.

From: <ameet.hiremath@yale.edu>
To: Kartikeya Shodhan
<kshodhan@vsnl.com>
Cc: <noah.biklen@yale.edu>;
<hannahpurdy@yahoo.com>;
<dan.michaelson@yale.edu>;
<deena.suh@yale.edu>
Sent: Wednesday, April 11, 2001 12:56 AM
Subject: temporary housing

Dear Mr. Shodhan,

I am a co-editor of *Perspecta, The Yale Architectural Journal*. Our topic is temporary architecture, and we are working with Mr. [Shigeru] Ban to document the process of designing and constructing disaster-relief houses in Ahmadabad.

We would like to begin a conversation with you about the on-site development of the buildings. We are interested in gathering photo documentation and specific information as the project is realized.

We are excited about working with you, and hope to speak with you again very soon.

Best regards,
Ameet Hiremath
Perspecta 34

Date: Wed, 11 Apr 2001 17:29:57 +0530
From: "Kartikeya Shodhan"
<kshodhan@vsnl.com>
Reply-To: "Kartikeya Shodhan"
<kshodhan@vsnl.com>
To: <ameet.hiremath@yale.edu>
Cc: "Ban San" <sba@tokyo.email.ne.jp>
Subject: Re: temporary housing

Dear Mr. Ameet,

Thank you so much for your e-mail.

Let me say that I'll be only too happy to provide you with all the information I have for your purpose of documenting Mr. Ban's temporary-shelter project in India.

I am a practicing architect based in Ahmadabad (Gujarat), under the firm name Kartikeya Shodhan Associates. I have been handling this project locally.

Ms. Keina Ishioka from Mr. Ban's Tokyo office and myself from our office have been involved in a continuous process of exchanging ideas and information via Internet and fax, so as to arrive at a localized design solution. Based on which, we have recently erected a prototype here in front of our office. We are now awaiting Mr. Ban's visit here, which will initiate further development in the project.

I'm certainly excited about working with you on the project. Looking forward to hearing from you soon.

With warm regards,
Kartikeya Shodhan

P.S. I was just curious to know if you had any connection with India, as your first name sounds so.

From: <ameet.hiremath@yale.edu>
To: Kartikeya Shodhan
<kshodhan@vsnl.com>
Cc: Hannah Purdy
<hannahpurdy@yahoo.com>; Noah Biklen
<noah.biklen@yale.edu>
Sent: Sunday, May 27, 2001 12:36 AM
Subject: temporary-shelter project

Hi, Kartikeya,

I wanted to see if anything had developed with the construction of the project over the last several weeks. I understand you are extremely busy.

We would be excited to hear about any developments when you have the time.

Thanks,
Ameet

P.S. Yes, I was born in Belgaum, India. My parents are still in Karnataka, but I grew up here in the States.

Date: Mon, 28 May 2001 21:29:51 +0530
From: "Kartikeya Shodhan"
<kshodhan@vsnl.com>
Reply-To: "Kartikeya Shodhan"
<kshodhan@vsnl.com>
To: <ameet.hiremath@yale.edu>
Subject: Finally!!:-)

Dear Ameet,

I don't know how I made out that you were probably in your mid-40s and I must address you accordingly!! (The tag of "Editor, Yale Architectural Journal" probably had something to do with it!) It was only after meeting Cynthia Barton that I discovered the fact!
[Cynthia Barton, Yale M.Arch. I '02, volunteered with Kartikeya Shodhan in the summer of 2001.]

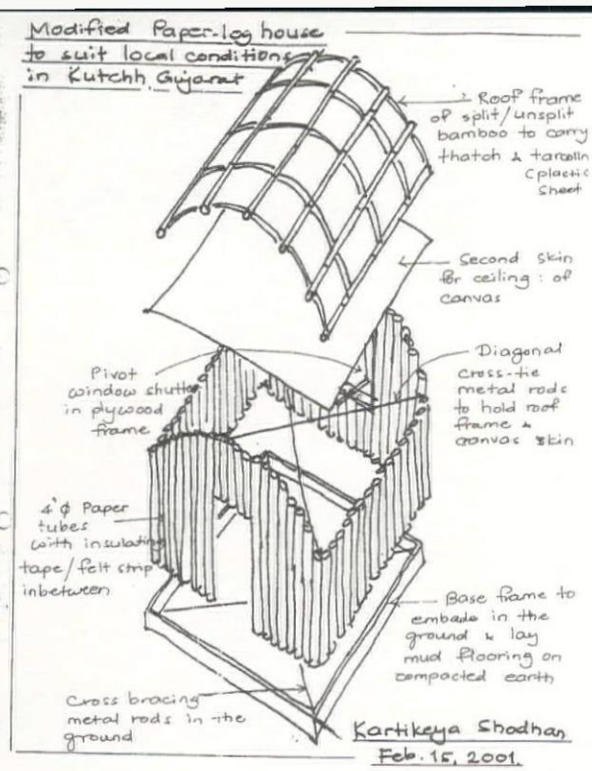
I am sorry for the misunderstanding. Anyway, finally, Ameet, I now have time to give you some details of the project:

Well, I have just returned from Bhuj after getting the project started off with the first set of three paper-tube houses. Cynthia came to Ahmadabad at just the right time so that she could accompany me to Bhuj. She stays on there, and two student volunteers are expected to join the project shortly.

Going back to the early part of the project, Shigeru Ban supplied us with details and drawings of his original paper-tube house design, which measured 4 m x 4 m.

Upon going through it in detail, I realized that:

- Part of the design involved high-precision and extensive carpentry work. Use of so much plywood and high-skilled labor would be extremely costly here.
- The concept of beer-crate foundation with plywood floor would also not suit here due to two reasons: First, in our conditions, people are psychologically comfortable with structures that are anchored to the ground. In uncertain living conditions, post-earthquake, this aspect became especially important. Second, introduction of more than one alien material at a critical time like this (paper tubes being one and plastic crates being the other) would also raise doubts in people's minds, which are already shaken up. It would end up in resistance to the idea.
- The roof also involved precision carpentry work and the use of a double



skin of canvas material and again a good quantity of plywood. Doors and windows also were made of plywood, which made the design extremely expensive for use in Indian conditions, even if you considered it as a permanent shelter.

With these initial reactions to Shigeru Ban's original design of a paper-tube house, I set about exploring alternative design solutions to make it economically viable and also user-friendly, keeping local people's psychology in mind.

I showed my proposals to my engineer friends and also was in regular touch with Ban's office. Ban was almost always traveling abroad, so his assistant-architect Ms. Keina Ishioka—was a very important link between Ban and myself. With the aid of technological advancement of scanning, faxing, and Internet e-mails, we were very well attuned to each other's ideas, and after the exchange of information over a period of more than a month I came up with a final design proposal. Ban was not totally convinced about a few of the decisions, but he agreed that since he did not know the conditions in this part of the world well, I should go ahead and make the prototype, which he would come and see before giving a go-ahead.

I took up the construction of the sample house in the front yard of my office in Ahmadabad (400 kilometers away from Bhuj, the actual site), and it took me about ten working days to complete the prototype. The promoters of the project, the Premchand Charitable Trust, represented by Mrs. Neeta Premchand, invited Shigeru Ban to India and brought him to Ahmadabad on April 27, 2001. Mr. Ban was extremely eager to see the new version of his original design, and immediately upon his arrival we saw the sample house, which he liked very much. "This looks and feels even better than my houses in Kobe," he humbly commented. And that was the best momentum that the project required after so much effort.

The same night, the three of us (Ban, Neeta, and myself) traveled to Bhuj to check out the actual site conditions where the houses were proposed to be built. It was decided to build three houses in the first phase—two in one village and one in central Bhuj, where many different designs for shelters were displayed by different organizations. Ban and Neeta flew back to their respective homes, and the all-important task of actually building the twenty houses was left on my shoulders.

Premchand Charitable Trust had committed to fund the twenty houses, costing under 25,000 rupees each. There are other agencies and organizations who have seen the sample house, have read about it in the local media, and have shown interest in funding more such houses, but we have asked them to wait until we are done with the twenty. We would like to see how people respond to living in these houses, and also how the houses stand against an extreme local climate, which is scorching heat in summers and extreme cold in winters (not freezing, though). There's little rainfall, but there are high-velocity windstorms in this desert region.

So, there we are. We have built three houses as per plan, and the actual users are expected to move in soon. Locations for the other seventeen are being finalized, and we should get a clear picture in a few days so that the next phase of construction can start.

Ordering and procuring different materials from five different agencies, keeping a check on the quality of the materials used, managing the transportation of these to different sites and also appointing a caretaker at each site, as there are many instances of theft, organizing the teams of carpenters, engineers, and supervisors and establishing coordination between them—all these aspects add up to make this whole exercise an extremely challenging one.

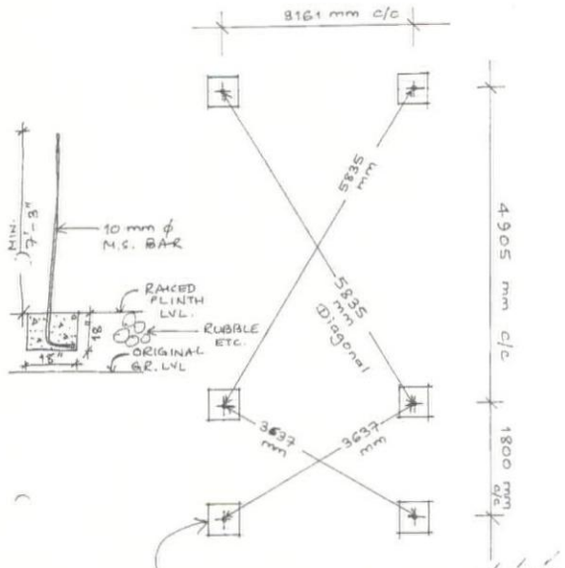
There are student volunteers from universities abroad who are inspired by Shigeru Ban's lectures and his work and want to come and help on our project.

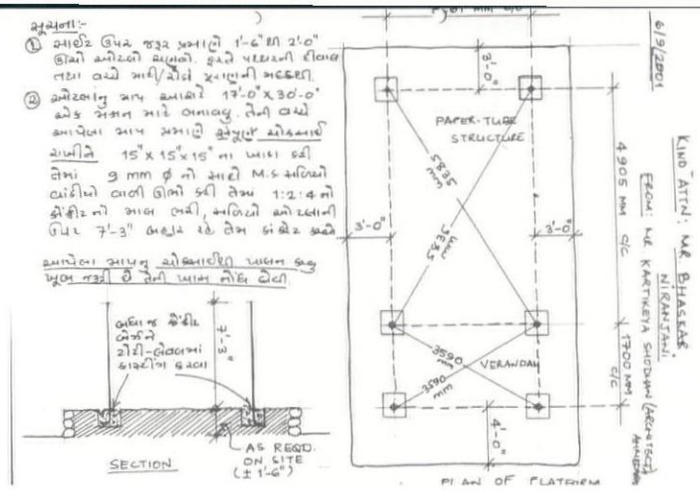
Now, here are the accompanying notes for the construction process of the house:

1. Four concrete pedestals of 15" x 15" x 15" are poured into the ground at the four corners of the house measuring 3.3 m x 5.0 m. Four mild-steel (m.s.) rods of 10-mm dia. are anchored into the concrete pedestals, which will eventually anchor the walls and the roof to the ground. Then four channels of 6" x 6" x 6" section, made of galvanized iron (g.i.), are laid for holding the four walls. Four paper tubes at the corners are inserted over the steel rods as shown.

2. One by one, paper tubes are erected inserting two m.s. rods of 6-mm dia. through them.

3. Temporary props are erected to support the walls, as they tend to sway sideways.





4. The walls are ready to take on C-shaped plywood channels at the top for proper alignment. Before that, liquid POP (plaster of Paris) is poured into the four corner tubes so that the steel rods are firmly held in place. (Plaster of Paris, a fine white powder used for cornices and false ceilings, hardens in quick time and does not require curing and is cheaper than cement. Hence its use.)

5. Once the top is fixed at perfect right angles, then we come to the base. Stretching a string across the entire length of each wall, and gently tapping with a hammer, the bottom ends of the tubes are also aligned. Immediately upon alignment, POP in liquid form is poured into the g.i. channels to firmly hold the aligned walls at the base.

6. The bamboo roof frame is erected. At four corners, the steel rod, which has come out from the base, is pierced through the intersecting bamboos and bent over at 90 degrees, so that the roof frame is firmly held in place to withstand any wind pressure which might try to lift the roof off.

7. Cane matting is placed on top and nailed to the split bamboo grid, and also tied with binding wires at every alternate intersection.

8. A plastic sheet (or tarpaulin) is sandwiched between two layers of cane matting to keep the rainwater out. A bamboo door in the front and a bamboo screen at the rear complete the structure.

9. The base inside the house is filled up with brickbats or concrete waste and rammed flat before applying mud + cow dung flooring paste (called "Leepan" in local language). It dries in a day or two, and the house is ready to live in.

Ameet, I hope this will help you after your long waiting. I'm sorry once again for the delay. It will be easier for me to keep you updated now that I have overcome the initial backlog!! Thanks for the patience.

With best regards,
Kartikeya Shodhan

From: <ameet.hiremath@yale.edu>
To: Kartikeya Shodhan <kshodhan@vsnl.com>
Cc: Noah Biklen <noah.biklen@yale.edu>; Hannah Purdy <hannahpurdy@yahoo.com>
Sent: Wednesday, May 30, 2001 10:39 PM
Subject: Re: Finally!!:-)

Hi, Kartikeya,

Thank you very, very much for the long note!

All of the information was extremely helpful, and really interesting.

The construction sequence was very illustrative, and we will be interested in hearing how the construction details may evolve after the initial three houses are tested.

Are the remaining seventeen houses within one site, or are you finding several sites? Why did you choose Bhuj to begin with, and who are the specific population of people that they are benefiting?

Do you have any idea yet of how long the houses will hold up and be in use?

I hope we can keep speaking, and please respond whenever you get a chance. It was wonderful to hear from you. Thank you again.

Ameet

P.S. I'm probably better known for many other, not so important titles.

My best to Cynthia. I wish I could be there helping!

Date: Tue, 17 Jul 2001 20:46:12 +0530
From: "Kartikeya Shodhan" <kshodhan@vsnl.com>
Reply-To: "Kartikeya Shodhan" <kshodhan@vsnl.com>
To: <ameet.hiremath@yale.edu>
Subject: Update.....

Dear Ameet,

Hi! It's been a long while since our last exchange of e-mails. We are now at the halfway stage in the project, and here's an update on what's going on here:

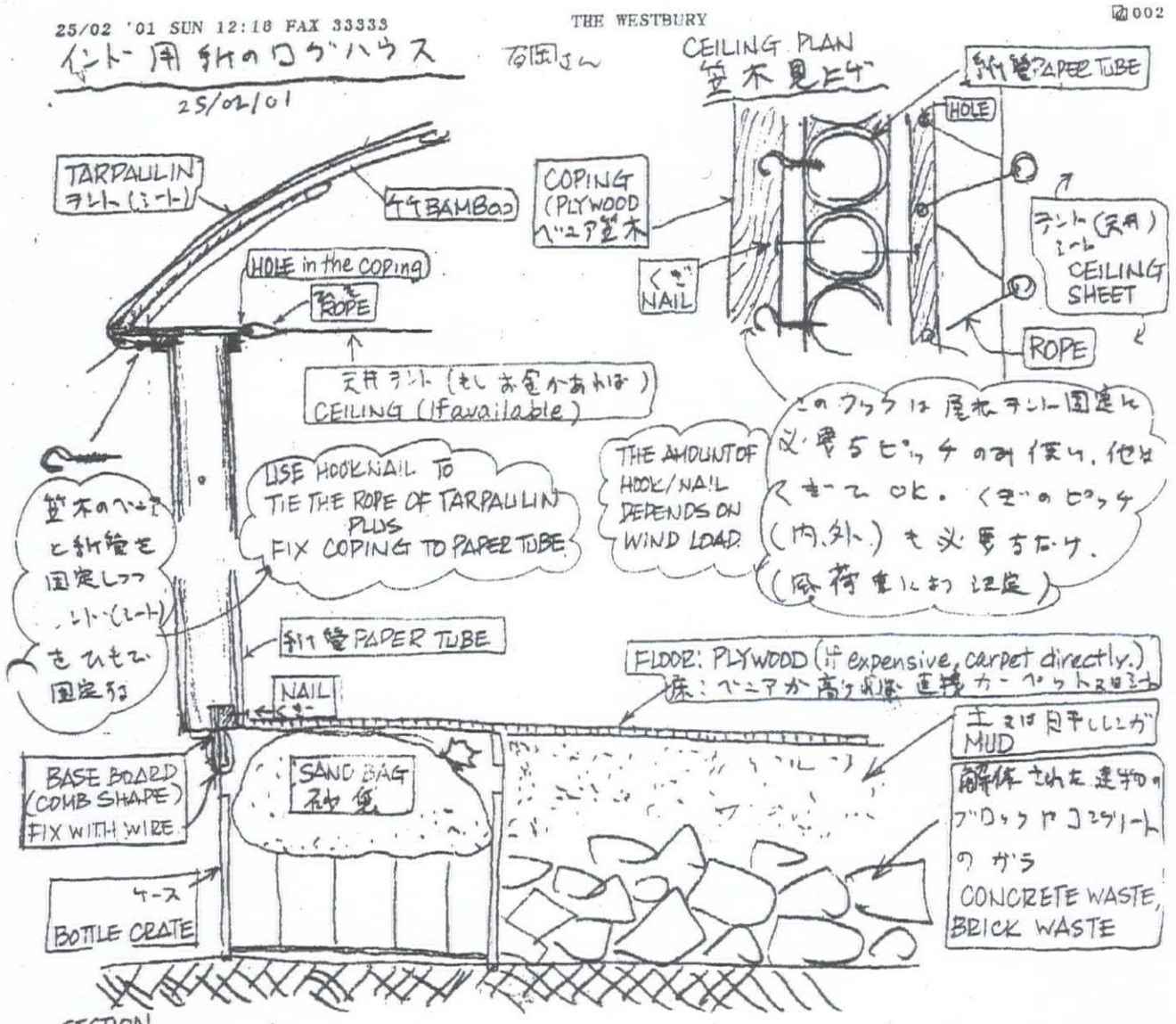
I'll start by answering some of your queries in the last e-mail dated May 30, 2001:

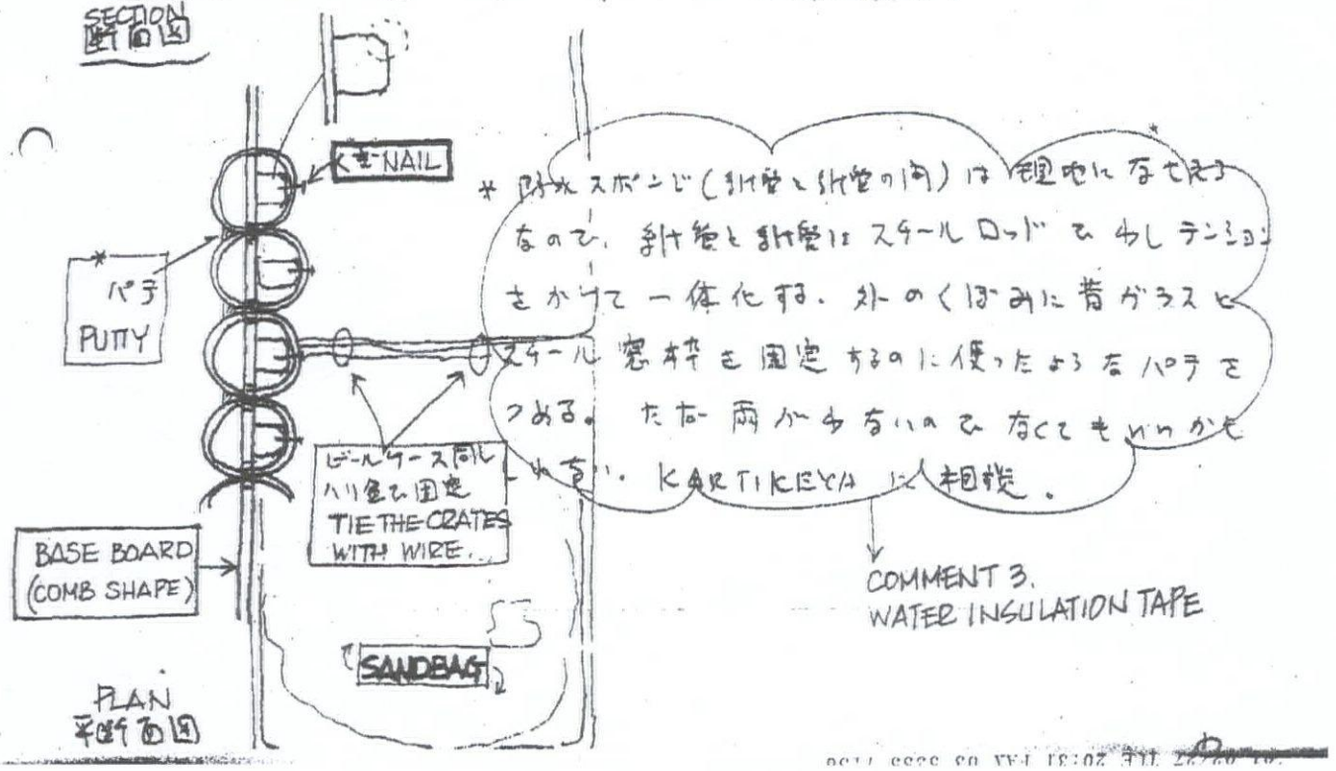
- Bhuj and its surrounding villages were an obvious choice, as these were the areas most affected, being the nearest to the epicenter of the earthquake.
- Another important factor was that the trustees of the promoting trust have a very good rapport with Shrujan & Abhiyaan, the local NGO based in Bhuj. These NGOs would help us in the allotment of the houses and provide us local support in case we had any difficulty in execution. This was one

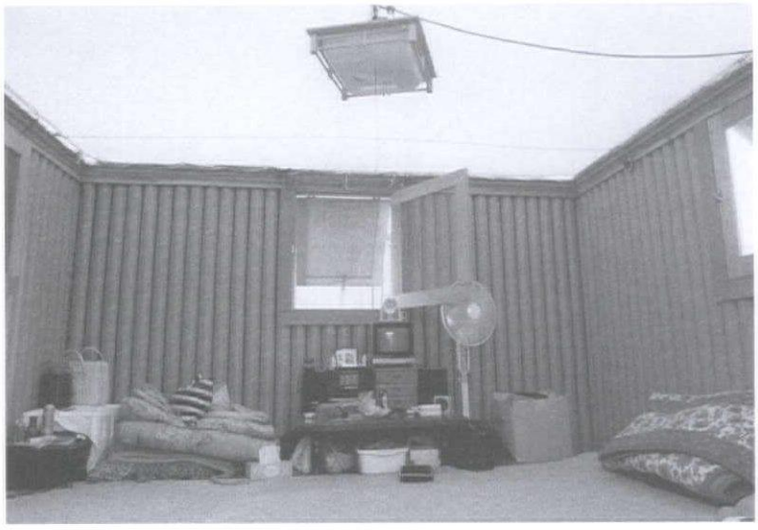
インド用紙のログハウス

25/02/01

谷口さん

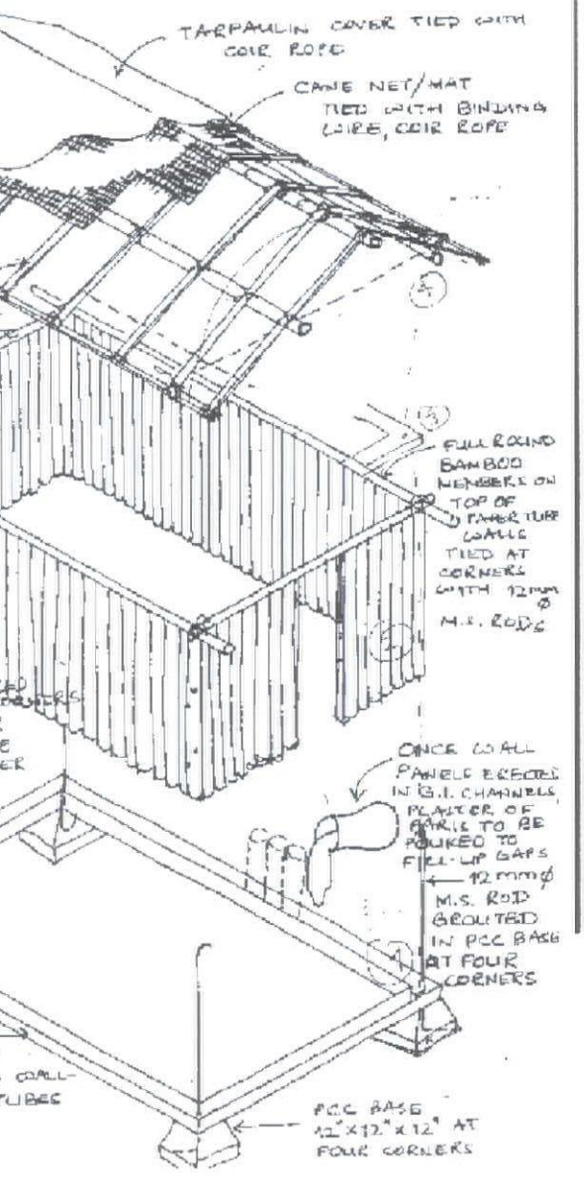


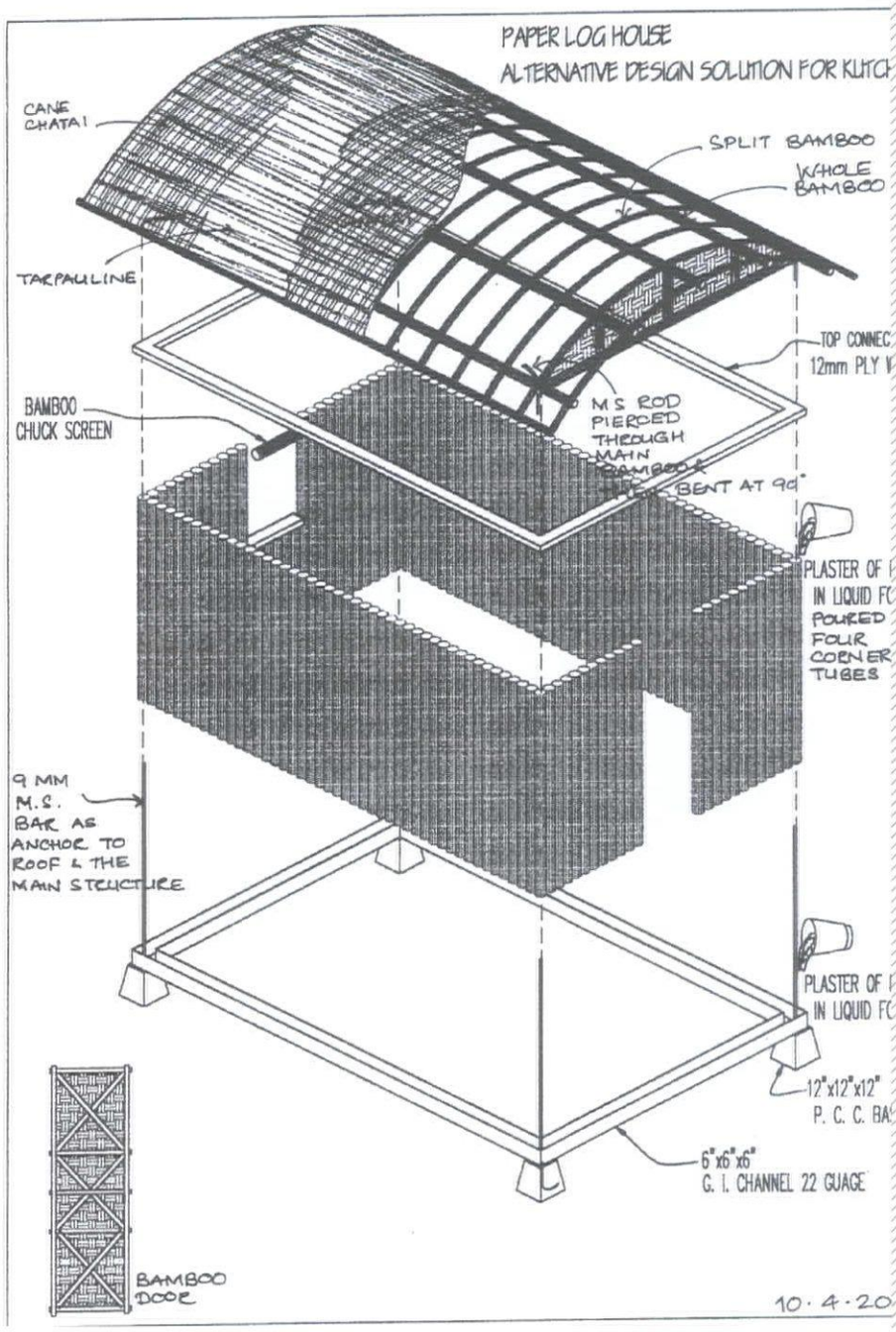


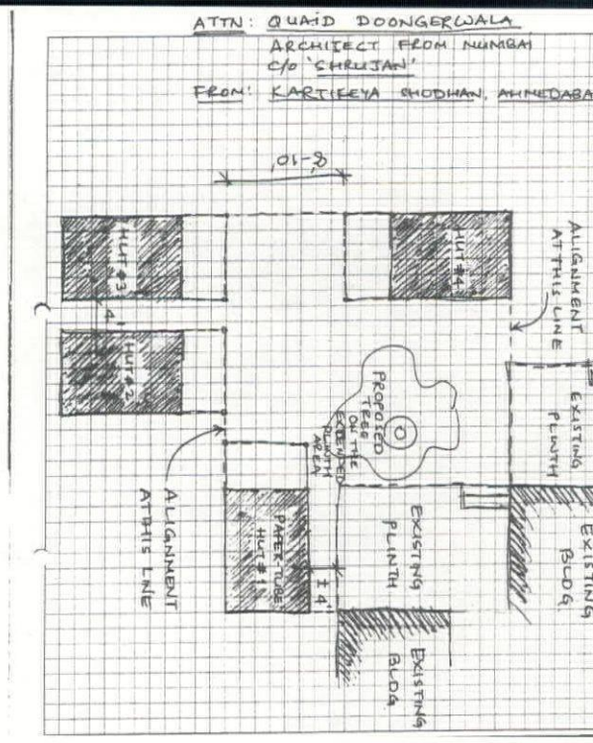


aper-tube housing in Kobe, Japan, 1995

Sketches for paper-tube housing in Kutch, India, 2002







of the most important factors for the realization of the project, as we were definitely staying away from any governmental "red-tape"ism.

- Neeta Premchand, as the trustee of the trust, and myself, as a voluntary architect of the project, were very clear in our minds for the allotment of houses. We wanted to give these to the most needy people, and our purpose was to see that the use of our houses gets optimized. With this goal in mind, and Shrujan's & Abhiyaan's suggestions—keeping many other local community factors in mind—we have arrived at this final allotment:

- Six houses at Dhaneti village (18 km from Bhuj). 2, 3, and 1 at different locations. All of these will be used as shelters to live in. Some of these will be shared by the community to be used for sleeping in at night and as workstations for the hand-embroidery workers (ladies) during the daytime.
- Five houses at Rak-Krishna Nagar near Dhaneti, for the same purpose as above.
- Four structures at Viraayatan School. These will be used as classrooms for children and administration.
- Four at Khavada village, 80 km north of Bhuj. These will be used as an arts & crafts center and for administration.
- One is built at "Abhiyan" site, where all different types of construction techniques are demonstrated by actual prototypes. Our structure here is used by the family of a voluntary civil engineer, who has come from outside to help on the rehabilitation project.

We could not possibly give all of these houses to the homeless families because, one, we are not working through the government and, two, there would be conflicts within the community regarding whom to give to and whom not to.

Coming to the life span of these structures, a definite time frame can not be determined. Once the structures are up, people are going to find a function for them as long as they last. How long these will last is anyone's guess. We have had rains in the region—much more than expected—and our houses have stayed dry from the inside. So we have cleared the initial test, which raises hopes that these can survive two/three years, at the least. The construction details have remained the same all through, barring minor adjustments: reducing g.i. channel depth from 6" to 4", increasing the wall thickness of the two freestanding tubes of the veranda from 4 mm to 7 mm to avoid warping, providing plywood doors/windows in place of split bamboo for additional safety and permanence. Paper tubes and the steel channels and rods are being manufactured in Ahmadabad. Plywood coping, bags of plaster of Paris, bamboo, cane, and plastic for the roof: all of these materials are transported from Ahmadabad to Bhuj in batches for three or four houses at a time.

While we were constructing the four houses at Viraayatan School, an unexpected bout of continuous rains hampered the work in a bad way. The construction had reached halfway, the tubes were yet to be covered from top, and the rains struck, wetting the tubes from the inside and making them soft. The work had to be stopped halfway, waiting for a few clear days when the tubes could dry and the work could restart. We've managed to put them up finally, though with a lot of difficulty.

With a series of public holidays and local festivals such as Lord Krishna's birth celebrations and "Raakhi" approaching, the labor force will be gone for a few days. With that, it seems that we won't be through with the twenty houses until September!!

That's all for now, Ameet.

----- Original Message -----
From: <ameet.hiremath@yale.edu>
To: Kartikeya Shodhan <kshodhan@vsnl.com>
Cc: Noah Biklen <noah.biklen@yale.edu>; Hannah Purdy <hannahpurdy@yahoo.com>
Sent: Thursday, November 29, 2001 2:34 AM
Subject: Re: Update.....

Hi, Kartikeya,

I just wanted to get in touch with you again, as it has been some time since we were in contact. I hope things are well and that the tensions in that part of the world have not affected you too greatly.

How is the temporary-housing project progressing?

Thank you again for all of your great help with this. We hope to hear from you again soon.

Best,
Ameet, Noah, Hannah

Date: Fri, 30 Nov 2001 13:22:50 +0530
From: "Kartikeya Shodhan" <kshodhan@vsnl.com>
Reply-To: "Kartikeya Shodhan" <kshodhan@vsnl.com>
To: <ameet.hiremath@yale.edu>
Subject: Re:

Hi, Ameet,

Nice to hear from you.

Things are fine with us over here.

The twenty-house project in Kutch has been completed successfully in September, earlier this year, and the structures are being used very well for different purposes.

With best regards,
Kartikeya

Date: Fri, 28 Jun 2002 11:41:27 -0500
From: <ameet.hiremath@yale.edu>
Reply-To: <ameet.hiremath@yale.edu>
To: "Kartikeya Shodhan"
<kshodhanadl@sancharnet.in>
Cc: <ameet.hiremath@yale.edu>
Subject: paper tube in *Perspecta34*

Dear Kartikeya,
I hope your day-to-day life is going well in the midst of the tensions there.
Have you visited the projects often since their construction? How have the people inhabited or changed the dwellings? Is this type of follow-up something you and Mr. Ban had talked about doing, or are doing?
Also, what would you have done differently in hindsight?

Hope to hear from you again soon,
Ameet

Date: Mon, 15 Jul 2002 16:59:52 +0530
From: "Kartikeya Shodhan"
<kshodhanadl@sancharnet.in>
Reply-To: "Kartikeya Shodhan"
<kshodhanadl@sancharnet.in>
To: <ameet.hiremath@yale.edu>
Subject: Re: paper-tube structures in *Perspecta 34*

Dear Ameet,

Hi! Thanks so much for your e-mail. I'm sorry for this delay in replying.
The promoter of our project, Mrs. Neeta Premchand, visited our project in April 2002, & she found that eighteen out of the total of twenty structures were being used really well as classrooms for children, workstations for women, clinic for a doctor, administrative offices for relief setups. Most happy are the children, who feel extremely comfortable & "close to nature" in these structures. They have no fear of anything heavy falling on their heads as tremors continue. They do not want to go back to the "pakka" (concrete) school building. We are planning to give this school two more structures: the two structures which have not been put to any good use elsewhere in a small township, where they have built permanent houses for villagers.
In general, these paper-tube structures have been received really well by the users (that's what matters, really, isn't it?) & the media alike.
Looking back, with hindsight, if we are to build more of these structures in the future for people in urgent need of shelters, then we would like to address the following two issues as a priority:

A. The cost of the structure should be lowered in order to cater to a larger number.
B. Treatment to the paper tubes must be done on the building site & not at the factory, as it delays the process & hampers the basic purpose of providing quick shelters. For this to happen, we have undertaken a research exercise, the results of which are awaited.

Our construction man just returned from Bhuj last week & says that the paper tubes are in as good a condition as ever, going into the second monsoon, & adds that nothing can happen to these structures for ten years at least!!
So we are very happy with the results of our team effort. Although it can be termed as "just a drop in the ocean" in the overall perspective, it has certainly given us a very satisfying feeling of having contributed our bit for a good cause.
That's all for now, Ameet. Hope this helps you to get closer to completing the story.

With best regards,
Kartikeya

Date: Wed, 17 Jul 2002 22:46:13 -0500
From: <ameet.hiremath@yale.edu>
Reply-To: <ameet.hiremath@yale.edu>
To: "Kartikeya Shodhan"
<kshodhanadl@sancharnet.in>
Cc: <ameet.hiremath@yale.edu>, "Hannah Purdy" <hannahpurdy@yahoo.com>, "Noah Biklen" <noah.biklen@yale.edu>
Subject: Re: Re: paper-tube structures in *Perspecta 34*

Hi, Kartikeya,

It was great to hear from you, as well as receive some new news about the paper-tube structures.
I didn't realize that the structures had such a variety of uses—could you elaborate on the functional uses that you named? What do you mean by "workstations for women"? Are the administrative offices and clinic related to the relief efforts still in use for those purposes?
It is still hard to imagine how these structures are situated in the areas that they were deployed. Can you describe how the siting of the structures was determined?
Thanks again for writing, and we hope to hear from you again soon.

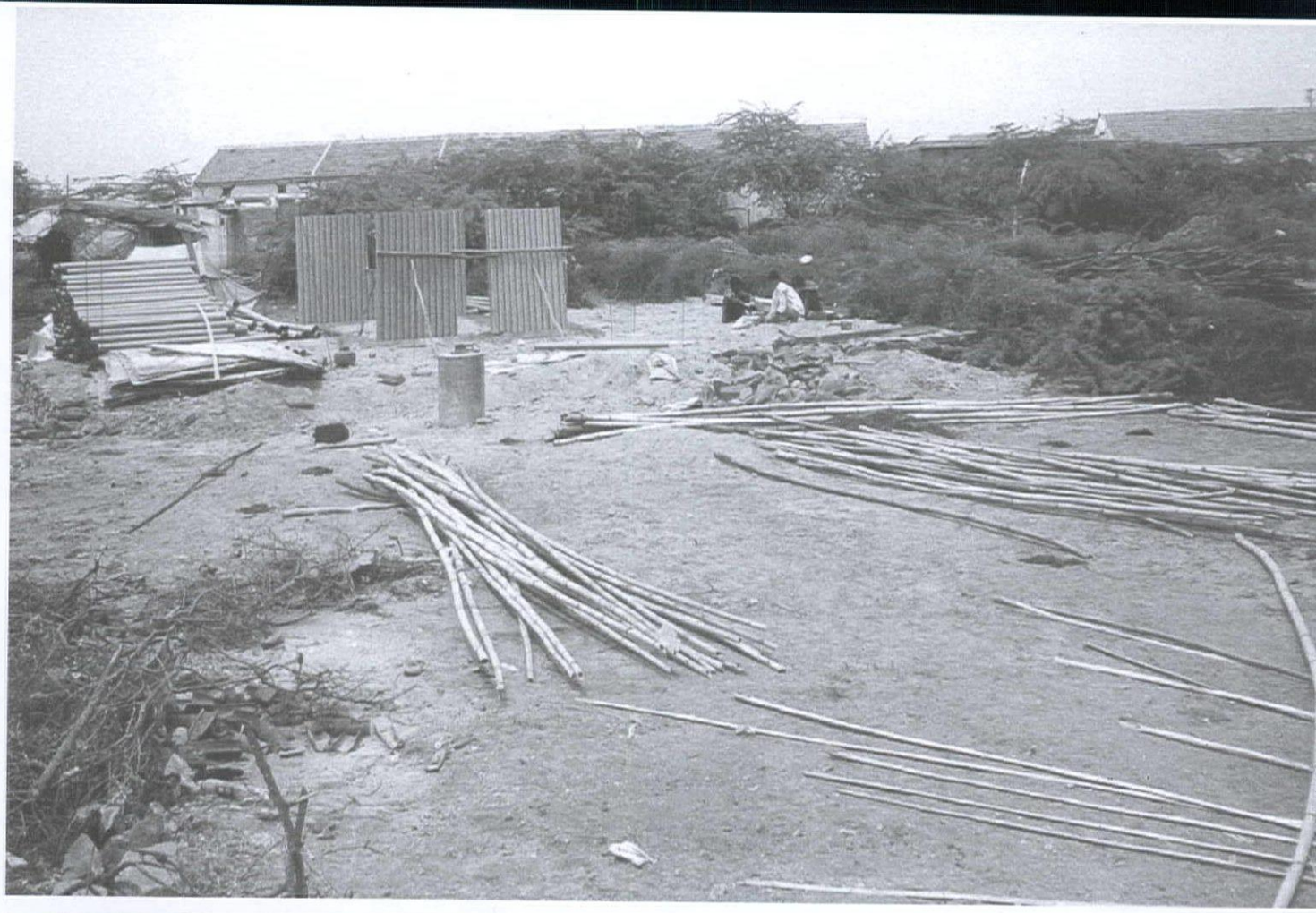
Warm regards,
Ameet

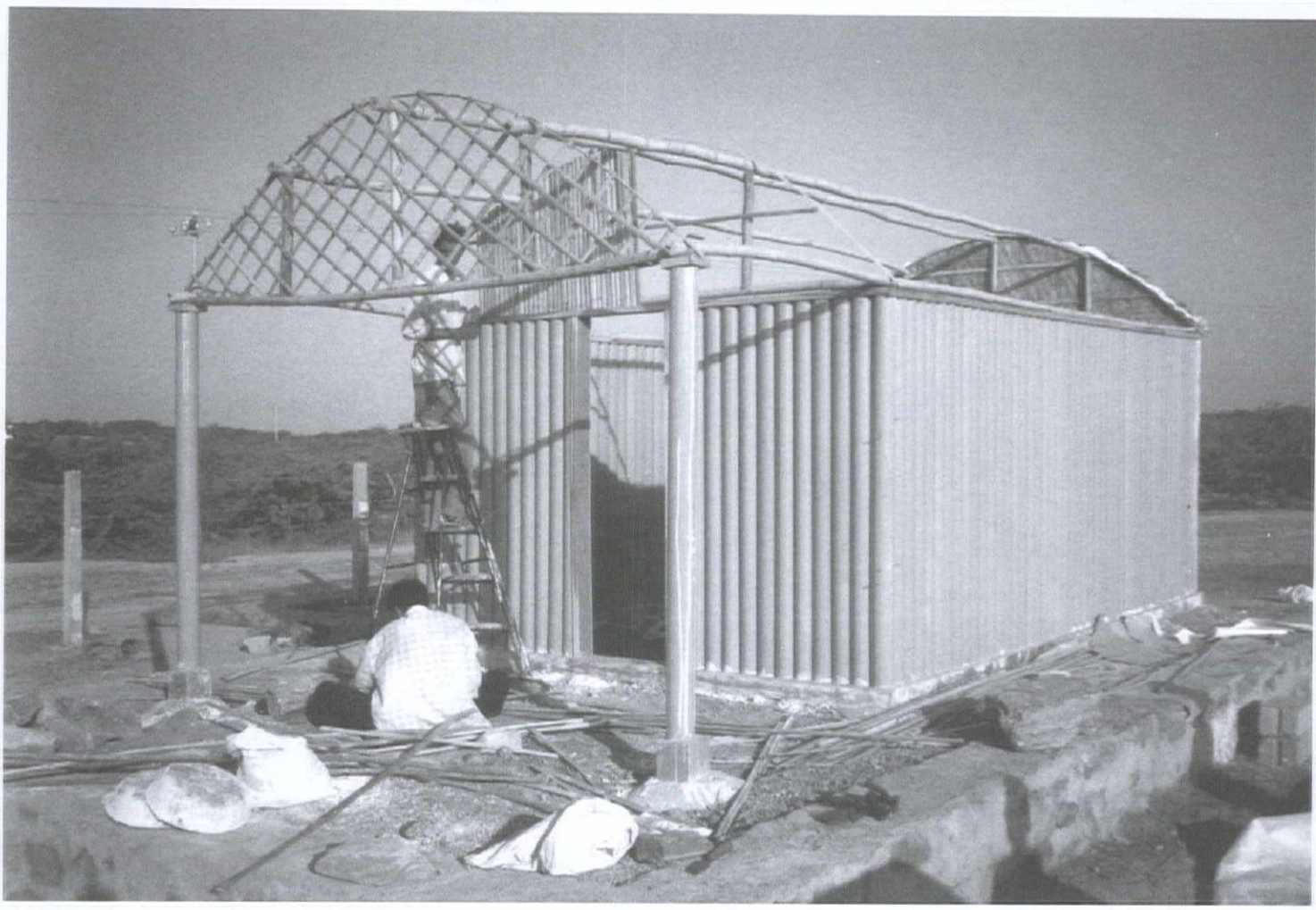
Date: Tue, 6 Aug 2002 14:48:17 +0530
From: "Kartikeya Shodhan"
<kshodhanadl@sancharnet.in>
Reply-To: "Kartikeya Shodhan"
<kshodhanadl@sancharnet.in>
To: <ameet.hiremath@yale.edu>
Subject: Re:

Dear Ameet,

Hi!
I'll now be able to put things together for you.
My wife delivered a baby boy last week, so apparently I have been busy with that over the past few days.

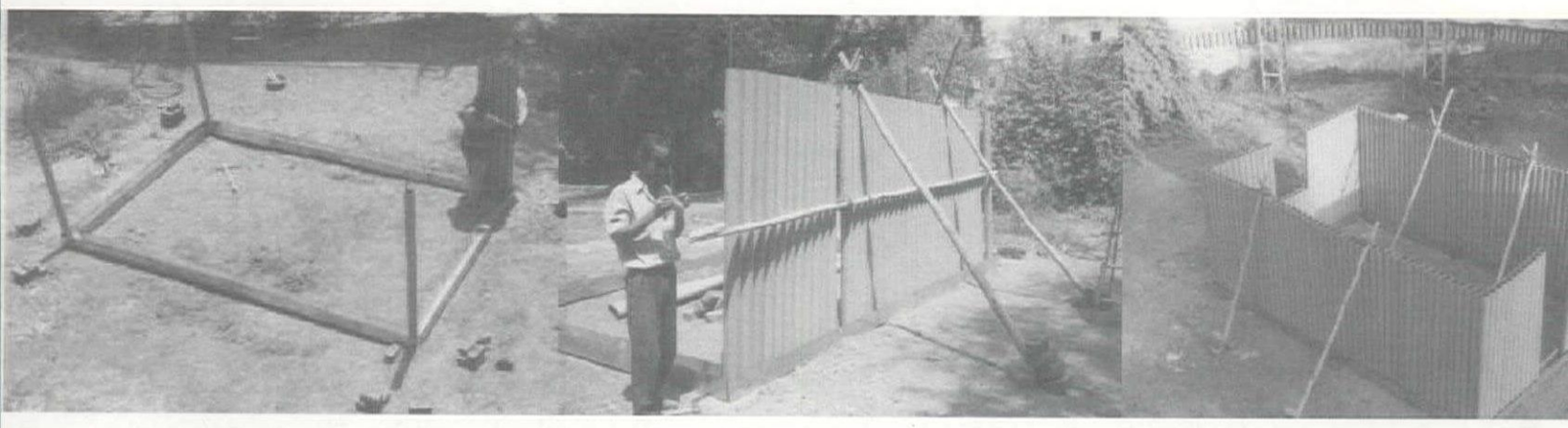
Take care & best regards,
Kartikeya





41 PAPER-TUBE HOUSING SHIGERU BAN/KARTIKEYA SHODHAN 2002

PAPER-TUBE HOUSING SHIGERU BAN/KARTIKEYA SHODHAN 2002 42



Date: Tue, 6 Aug 2002 22:10:54 -0500
From: <ameet.hiremath@yale.edu>
Reply-To: <ameet.hiremath@yale.edu>
To: "Kartikeya Shodhan" <kshodhanadl@sancharnet.in>, "Hannah Purdy" <hannahpurdy@yahoo.com>, "Noah Biklen" <noah.biklen@yale.edu>
Cc: <ameet.hiremath@yale.edu>
Subject: images for P34_Shodhan

Dear Kartikeya,

Congratulations! That's very exciting news! Our best to your new family.

Ameet

Date: Thu, 15 Aug 2002 20:10:21 +0530
From: "Kartikeya Shodhan" <kshodhan@hclinfinet.com>
Reply-To: "Kartikeya Shodhan" <kshodhan@hclinfinet.com>
To: <ameet.hiremath@yale.edu>
Subject: Ans. to Queries...

Dear Ameet,

Let's now go with your queries:

A. Variety of functional uses: Well, yes. We, too, did not know in the beginning that our structure will be such a multi-utility one. I guess two factors contributed to it: one, the size of the room, which was originally 13'-9" x 13'-9" in Kobe & Turkey, and we modified it to 10' x 16', &, two, the 6' x 10' semi-open veranda space that we added after the prototype was built. In Indian culture we have this concept of multipurpose space, which is capable of handling a variety of usages as the day progresses (e.g., entertaining visitors, children doing homework or playing, lady of the house sitting here & cutting vegetables etc. while chatting with friend/neighbor: all in the same common space at different times of the day). Let me take up the next point & make myself clearer.

B. "Workstations for women": Kutch is well known for the beautiful hand-embroidery work done by the local women. Shrujan, the NGO through which we went about the allotment process, is primarily responsible for supporting these women since 1969. It takes care of all these women by exporting garments with the beautiful work done by these ladies & pumping back the profit in the upliftment of the same villagers. Shrujan has been setting up workplaces for these women to come & work together through the day. After the earthquake, these women had no place to work. When we visited Bhuj, we saw that about sixty women were cramped together, shoulder to shoulder, doing embroidery work, trying to find shelter under a tent of about 18' x 18'! And since Shrujan was advising us on the allotment, apparently they had their women's interest on priority. So we decided to build a few structures for them, where they can do their work during the day & share it as a common place to sleep at night.

C. Administrative offices & clinic: Yes, these are still in use for the relief efforts. In fact, one structure, which was given to the only doctor in a village, has now been converted into his regular clinic. One structure is used as an office for a school, and two others which were given to KNNA, Kutch Nav-Nirman Abhiyan (which means a drive to rebuild Kutch), specifically for use as administrative offices are in use for that very purpose till today. These centers are called "SETU" (meaning a bridge), forming a link between the people who seek help & those who offer it. Such centers are located one for a group of ten neighboring villages, & it keeps all data, computerized & manually filed, to efficiently manage the relief work. They also maintain a well-organized chart-list, which allows them to pass on the help where it is required the most.

D. Siting of the structures: Yes, initially we did plan to build all twenty for one community & create a nice layout with a common open space in the middle with trees etc., but that plan was very short-lived. Government help was being offered in terms of monetary compensation, so no one was willing to let go of that for this semipermanent structure. This is also the reason why most of our structures eventually went to the community as a whole, & not to a particular individual.

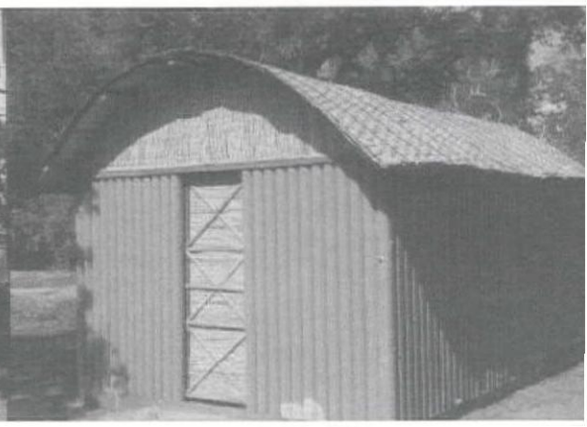
Out of the first three structures that we built, two were given to Shrujan women & one was built on KNNA's demonstration site. So we decided to keep at least half the number for inquiries coming through KNNA. Viraayatan School people saw it & showed interest. That is how we gave five (four + one) to them, & while siting these, we tried to create an inward-looking cluster where all four or five structures spill out into the central open space. So, basically these are all scattered at different locations (as far as 50 to 100 km apart) in groups of four, three, two, & one.

It would be interesting for you to know why two of our twenty structures stand abandoned. We built two houses on a site where two hundred concrete-block houses were being built. Now that those "pucca" (meaning cement-concrete) houses are ready (how mechanically they've been laid out, & not a thought is spared to deal with the harsh climate, is a separate story) & people have moved into them, there are no takers for these non-permanent structures, because no one would like to be the "odd one out"! After the current monsoon, we are planning to move these two & probably give them to the children's school. The process of opening up this modified version is certainly not as easy as Ban's original design, but since these structures will be used as long as they last, it will be a worthwhile exercise to carry out.

Well, Ameet, that's all for now.

Best regards,
Kartikeya





Date: Mon, 30 Dec 2002 14:28:37 +0530
From: "Kartikeya Shodhan"
<kshodhan@hclinfinet.com>
To: "Ameet Hiremath"
<ameethiremath@yahoo.com>
Subject: Re: p34

Hi, Ameet,

I was away to Bhuj, Kutch, to study the progress in reconstruction process, and guess what? I have some interesting information to share with you on our paper-tube houses.

Remember I'd mentioned about two/three of our houses being left unused? Well, the users had moved to a new site, but looking at the good condition of the structures, they felt the need to move them to another location, where they can be better used. And I was amazed to see that the villagers—with the help of a local civil contractor—managed to lift them off from the original site, transport them to the new place, & reerect them there successfully. Today they are being used as homes for farmers' families. A successful exercise that gives us the confidence that all these structures will be used (and not abandoned) as long as they will last.

I hope you got the information you were looking for.

Thanks & regards,
Kartikeya

Sent: Monday, December 30, 2002 9:04 PM
From: Ameet Hiremath
<ameethiremath@yahoo.com>
To: Kartikeya Shodhan
<kshodhan@hclinfinet.com>
Subject: Re: p34

Hi, Kartikeya,

Thanks so much for a small new chapter in the paper-tube shelter story—I think we have everything we need to finish it out.

Best wishes,
Ameet

Date: Fri, 3 Jan 2003 14:16:45 +0530
From: "Kartikeya Shodhan"
<kshodhan@hclinfinet.com>
To: "Ameet Hiremath"
<ameethiremath@yahoo.com>
Subject: Re:

Hey, Ameet,

Glad to hear your reply.

We've also suggested to the users that in case, a couple of years down the line, they see signs of the paper tubes wearing out, they should nail "chicken-wire mesh" flat onto the wall surface of the paper tubes and then plaster it with local mud plaster. That way, the tubes' exposure to external forces can be minimized & the life of the structure further extended. This being just an idea, its workability can be checked only as & when such a situation arises. We'll wait & watch.

Well, Ameet, that's all for now.

Best regards,
Kartikeya

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hoH pages 108–9 Cero9.

Notes on System Form pages 112–13 *The Great Escape*. John Sturges, 1963. | 114 David Heiser, Network Aspen. | 115T *Growing Up with Dick and Jane: Learning and Living the American Dream*. Carole Kismaric and Marvin Heiferman. San Francisco: Collins, 1996. | 115B Interloop. | 116T Chuck O'Rear, Corbis Media. | 116B *The Savage Mind*. Claude Lévi-Strauss. Chicago: University of Chicago Press, 1966, image 2. | 117T *Passages in Modern Sculpture*. Rosalind E. Krauss. Boston: MIT Press, 1987, 244. Richard Serra: *Hand Catching Lead*, 1969. | 117B *Drawing from Dirt*, Michael Heizer, Germano Celant. Milan: Fondazione Prada, 1997, 135.

Displacement pages 118–27 Gans & Jelacic, Architecture and Design.

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Glass Video Gallery page 136 Bernard Tschumi Architects. Photo: Pinkster & Tahl. | 137T Bernard Tschumi Architects. Photo: Pinkster & Tahl. | 137B Bernard Tschumi Architects. Photo: ver der Vlugt & Claus.

Eyes in the Heat pages 138–39T *Slow Space*, ed., Michael Bell and Sze Tsung Leong. New York: Monacelli, 1998, 95. | 138–39B Sze Tsung Leong. | 138–40 Peter Eisenman. |141 Giuseppe Terragni, Zanichelli Series di Architecttura, ed. Nicola Zanichelli. | 142T *Slow Space*, 95. | 142B *Slow Space*, 94. | 143T *Slow Space*, 95. | 143B *Slow Space*, 93. | 144 *Slow Space*, 94. | 145 Robert Slutzky. | 146–47 Sze Tsung Leong.

Houston pages 148–49 Sze Tsung Leong.

Disaster Relief pages 152–61 Kartikeya Shodhan/Shigeru Ban Architects.

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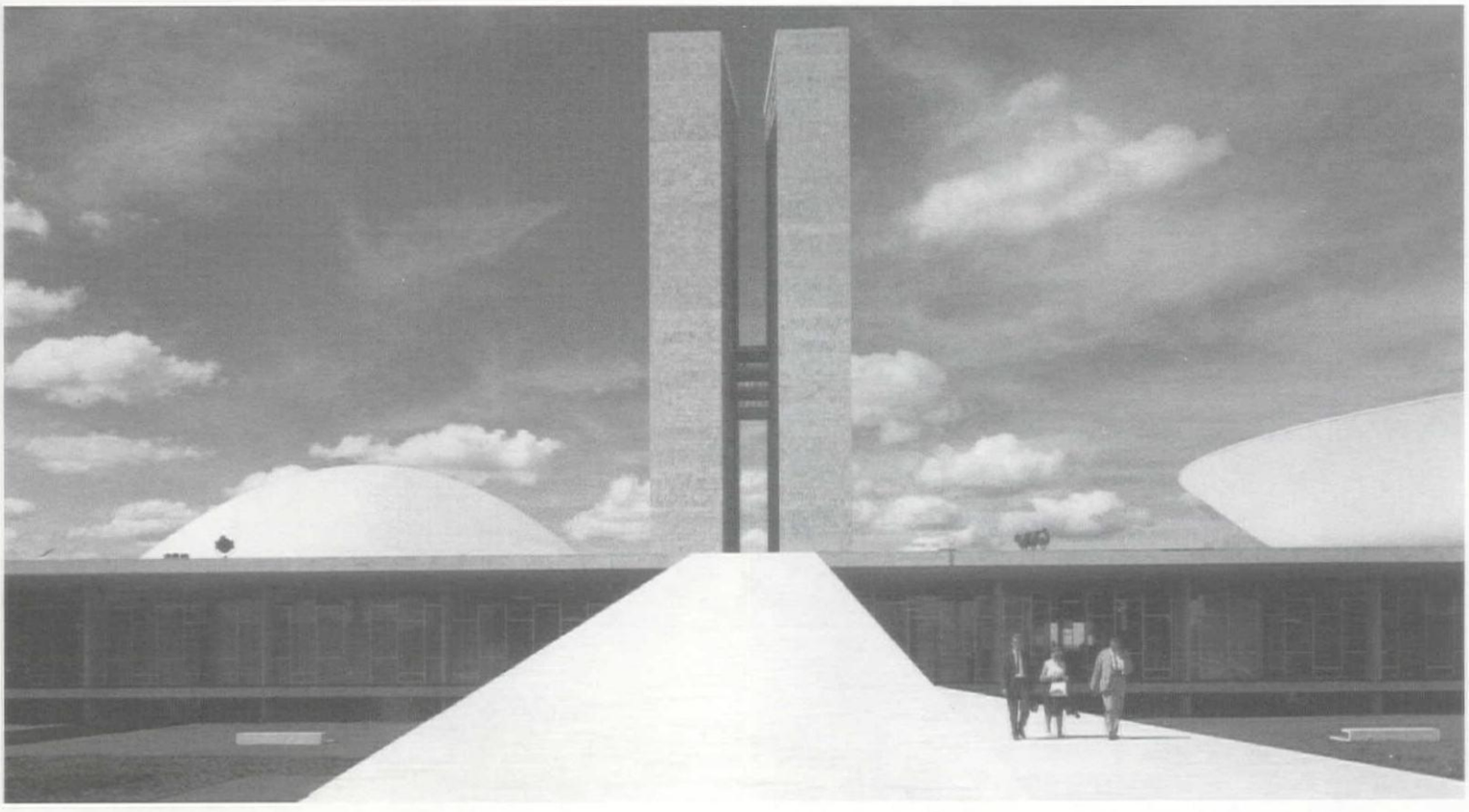
↓ Senate, Congress, and Chamber of Deputies, Brasília.



Contributors

Kobo Abe was born in Tokyo in 1924 and grew up in Manchuria. He received a medical degree from Tokyo Imperial University, but began a career as a novelist and playwright instead, joining the literary group headed by Hanada Kiyoteru. His other works translated into English include *The Woman in the Dunes* (1962; Vintage Books, 1991) and *The Ruined Map* (1967; Knopf, 2001). The director Hiroshi Teshigahara has made several of his works into films. Kobo Abe died in 1993.

Arjun Appadurai holds joint appointments in the departments of anthropology, sociology, and political science at Yale College, where he is the William K. Lanman Jr. Professor of International Studies and heads the Initiative on Cities and Globalization. His most recent books include an edited volume, *Globalization* (Duke University Press, 2001), and *Modernity at Large: Cultural Dimensions of Globalization* (University of Minnesota Press, 1996); his current research focuses on Asian megacities, globalized activist networks, and ethnic violence. He is a co-founding editor of the interdisciplinary cultural studies journal *Public Culture*. He previously taught at the University of Pennsylvania and the University of Chicago. where he was founding director of the Chicago Humanities Institute.

Shigeru Ban studied at the Southern California Institute of Architecture and at the Cooper Union for the Advancement of Science and Art. He lives and works in Tokyo and teaches architecture at Keio University. He is a principal of Shigeru Ban Architects and has built temporary and permanent projects across Japan and internationally.

Michael Bell is associate professor of architecture at Columbia University's Graduate School of Architecture, Planning, and Preservation and is principal of the New York City firm Michael Bell Architecture. He is founder of 16 Houses, a research, exhibition, and building program that examines recent federal voucher programs for low-income housing. His work in housing for the New York Department of Housing Preservation and Development and for Houston's historic Fifth Ward has been exhibited at the Museum of Modern Art, New York, the Yale School of Architecture, and the Architectural League of New York. Bell co-edited *Slow Space* (Monacelli, 1998) and is the author of *16 Houses: Designing the Public's Private House* and *Having Heard Mathematics* (Monacelli, 2003).

Raoul Bunschoten is founder and director of the architecture and urban planning office and research laboratory CHORA, based in London. *Urban Flotsam: Stirring the City* (010 Publishers, 2001) is a manifesto about a new planning methodology, with a selection of projects. His other publications include *Metaspaces* (Black Dog, 1998), *Public Spaces* (Black Dog, 2001), and articles in periodicals such as *A+U*, *AA Files*, *Topos*, *Architecture & Technique*, and many others. He has run interdisciplinary research and design studios in architecture and planning at the Berlage Institute in Rotterdam, Columbia University, the Architectural Association in London, Aarhus School of Architecture, and elsewhere.

Keller Easterling is an architect, author, and associate professor at Yale. Her recent book, *Organization Space: Landscapes, Highways, and Houses in America* (MIT Press, 1999), applies network intelligence to a discussion of American infrastructure and development formats. She is also author of *Call It Home*, a laser-disc history of American suburbia from 1934 to 1960. Two recent web sites explore alternative methods and documents for adjusting urban space: Wildcards: A Game of Orgman (www.dmca.yale.edu/ wildcards) and High Line: Plotting NYC (www.thehighline.org). She is currently working on a book titled *Terra Incognita*, about spatial products in pivotal political locations around the world.

Dawn Finley is a principal, with Mark Wamble, of Interloop A/D, a collaborative research and design practice specializing in interactive working and learning environments and high-performance products. Finley was invited to design a product for Droog Design—*Do Post*—introduced at the Kunsthal, Rotterdam, for the 2000 Milan Furniture Fair. She is an assistant professor at the Rice School of Architecture and has been teaching architecture design since 1999.

Deborah Gans and **Matthew Jelacic** are partners in Gans & Jelacic, Architecture and Design, and professors at Pratt Institute. They have taught as visiting faculty at the Institute for Architecture and Urban Studies, Parsons, Columbia, and Dalhousie University, among other institutions. Gans is a visiting critic at the Yale School of Architecture. Their current work includes a patented "next generation" school design, recently included in the permanent collection of the Museum of the City of New York, and the headquarters of the Brooklyn Center for the Urban Environment, as well as the projects included here. Gans is the author of *The Le Corbusier Guide*, a managing editor of *Bridging the Gap: Rethinking the Relation of Architecture and Engineering,* and, with Zehra Kuz, editor of *The Organic Approach to Architecture*, forthcoming from Academy/Wiley.

Roy Kozlovsky is a Ph.D. candidate in theory and history of architecture at Princeton University. He studied architecture at the Bezalel Academy, Jerusalem, and has an M.E.D. from the Yale School of Architecture.

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Ed Mitchell is an architect practicing in New Haven, Connecticut. He teaches studios and seminars at the Yale School of Architecture, where he is associate professor. His recent work explores historical urban narratives in New Haven neighborhoods and emerging forms of lifestyle in the United States. His design work has been published in a number of journals and in the book *Young Architects: Scale* (Princeton Architectural Press, 2000). His writings have appeared in *Hejduk's Chronotope* (Princeton Architectural Press, 1996), *Assemblage 40*, *ANY*, *Open City*, *Alphabet City 6*, *The Village Voice*, and most recently the anthology *What Is Architecture?* (Architekturzentrum Wien, 2001).

Kartikeya Shodhan was trained at the School of Architecture, CEPT (Centre for Environmental Planning & Technology), Ahmadabad, and has worked with Chandavarkar & Thacker, Bangalore, India; Broggi & Santchi, Zurich, Switzerland; and Kamal Mangaldas, Ahmadabad, India. He is a practicing architect in Ahmadabad.

Mark Wamble established Interloop A/D in 1994 and incorporated with Dawn Finley in 2001. With his partners at Bricker + Cannady Architects, Wamble built several civic and public-works projects recently published in *Architecture* magazine. He has taught architecture design at the Rice School of Architecture and has been a visiting instructor at Harvard's Graduate School of Design and Columbia's Graduate School of Architecture, Planning, and Preservation; he and Dawn Finley were the Max Fisher Visiting Professors at the University of Michigan Taubman College of Architecture and Urban Planning in fall 2002.

Krzysztof Wodiczko earned his M.F.A. in 1968 from the Academy of Fine Arts in Warsaw, Poland, in industrial design and architecture. His work combines media, performance, and design and aims at encouraging social dialogue and change. He is best known for public projections on monuments and buildings, as well as for instruments and vehicles such as the *Alien Staff* and the *Homeless Vehicle*. Wodiczko has written numerous articles for publications such as *October* and *Assemblage*. A collection of his writings, *Krzysztof Wodiczko: Art Public/Art Critique*, was published by École Nationale Supérieure des Beaux-Arts in Paris (1985), and in 1999 he published *Critical Vehicles* (MIT Press). Wodiczko is currently a professor of visual arts and the head of the Interrogative Design Group (www.interrogative.org) at the Massachusetts Institute of Technology.

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