Perspecta

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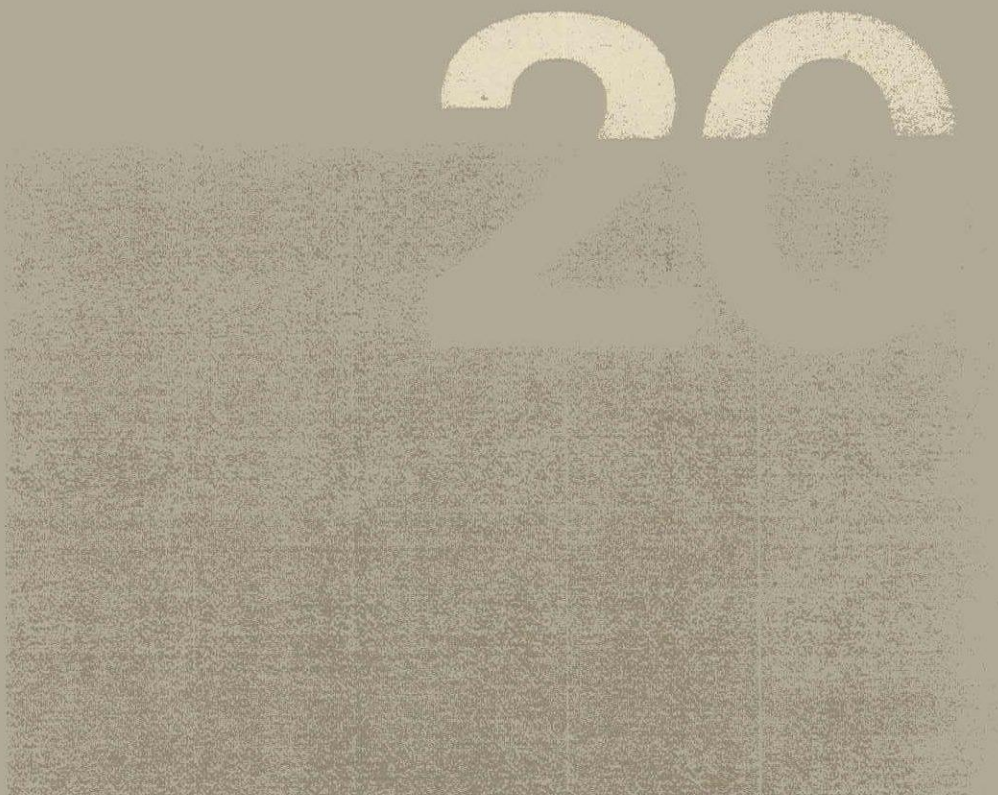

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In memory of Gertraud Auguste Wood
Staff Assistant and Secretary to the Dean, 1967 – 1981
School of Architecture, Yale University

The word *authenticity* comes so readily to the tongue these days and in so many connections that it may very well resist such efforts of definition as I shall later make, but I think that for the present I can rely on its suggesting a more strenuous moral experience than *sincerity* does, a more exigent conception of the self and of what being true to it consists in, a wider reference to the universe and man's place in it, and a less acceptant and genial view of the social circumstances of life. . . .

The concept of authenticity can deny art itself, yet at the same time it figures as the dark source of art: so it did for Yeats, himself no mean role-player and lover of *personae,* at a moment when all his performances seemed to him of no account and he had to discover how to devise new ones.

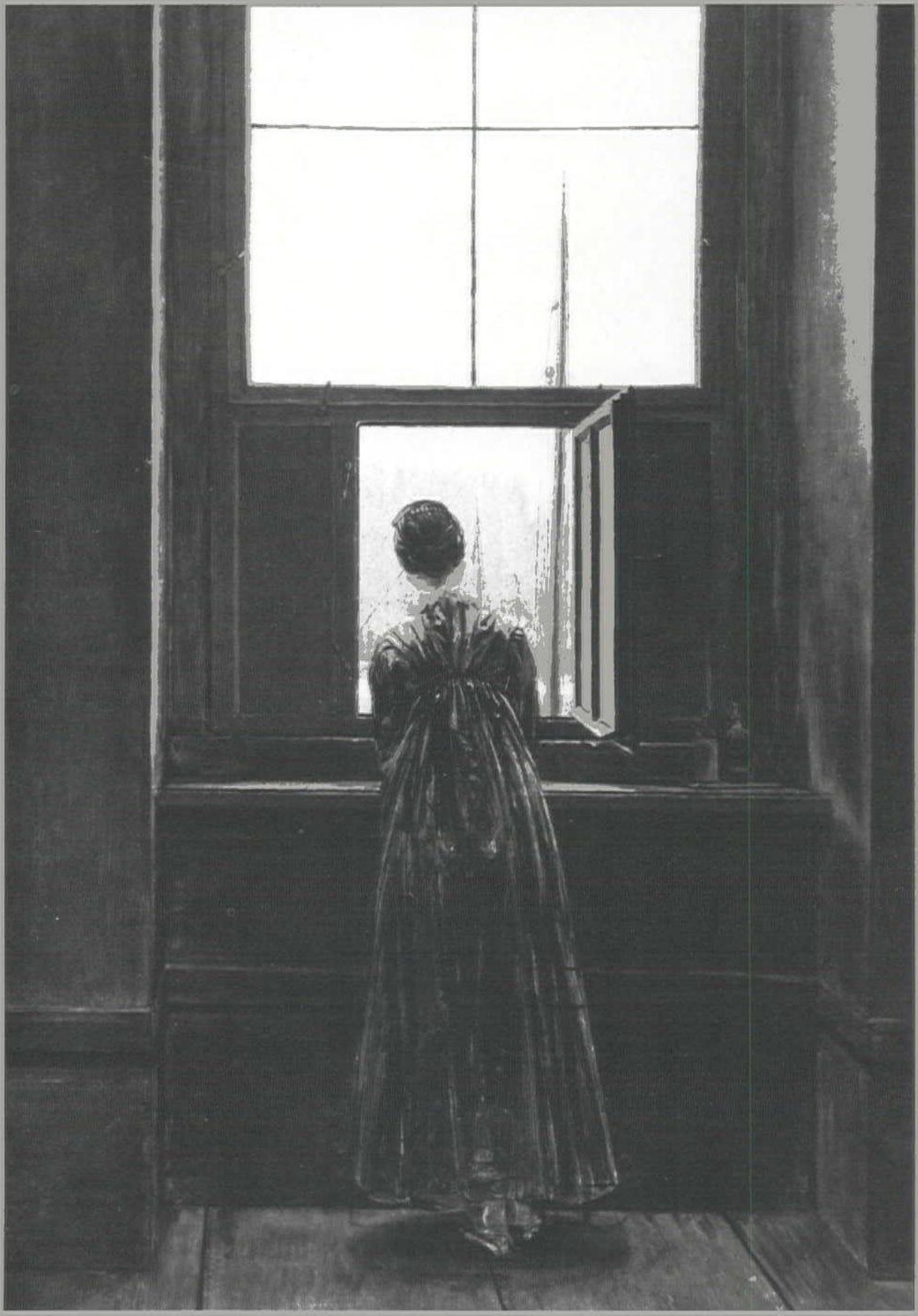
> Those masterful images because complete
> Grew in pure mind, but out of what began?
> A mound of refuse or the sweepings of a street,
> Old kettles, old bottles, and a broken can,
> Old iron, old boxes, old rags, that raving slut
> Who keeps the till. Now that my ladder's gone,
> I must lie down where all ladders start,
> In the foul rag-and-bone shop of the heart.

A very considerable originative power had once been claimed for sincerity, but nothing to match the marvellous generative force that our modern judgement assigns to authenticity, which implies the downward movement through all the cultural superstructures to some place where all movement ends, and begins.

Lionel Trilling

Lionel Trilling, *Sincerity and Authenticity*
(Cambridge: Harvard University Press, 1973), p. 11.

Thoughts on a Non–Arbitrary Architecture



Caspar David Friedrich,
Woman at the Window", 1822.

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1

The Austrian novelist Hermann Broch suggested that we may read the essence of an age from its architectural façades.[1] Applying this suggestion to what was built in Vienna in the last decades of the nineteenth century, he arrived at a very negative judgment: only a decadent society could have produced such an arbitrary, eclectic, and theatrical architecture. This had been the heyday of neo-baroque, neo-renaissance, and neo-gothic building. To Broch such a turn to the past seemed the cynical attempt of a rational age to cover up its own poverty. Reason, and this meant first of all economic considerations, determined what and how one built. But reason proved not enough, something was felt to be missing. So, an ornamental dress was thrown over fundamentally utilitarian structures, and lacking the strength and conviction to create an ornament and a style equal to what earlier ages had produced, architecture took to borrowing. The riches of the past had to compensate for the poverty of the present.

Such negative comments on the eclecticism of the nineteenth century are part of the situation that led to the rise of the modern movement. Think of Adolf Loos's much more vehement attack on the same architecture criticized by Broch, or of the hopes that led to the establishment of the Bauhaus: the modern world would finally find its own proper style. Gropius promised to heal the rift between beauty and reason, form and function; once more architecture was to be all of a piece.

Today, those dreams also belong to the history of architecture. We have learned to look with different and more loving eyes at architecture that to Broch demonstrated cynicism and the decadence of the age. But was he wrong? Or have we grown only more resigned, not to say, more cynical?

Today, the age that built Vienna's Ringstrasse, the age of operetta and the *Backhendl* (the Vienna fried chicken), seems quite wonderful if irretrievably lost; slipped away into a past when the Danube was always blue (figure 1). And, strangely enough, today we find architects returning to the eclectic architecture of the nineteenth century somewhat as the nineteenth century returned to the stronger styles of the preceding centuries. Eclecticism has been raised to a higher power; so has arbitrariness. Historicism has become meta-historicism. Consider what has been called "post-modern classicism."[2]

1
Building at Linke Wienzeile 42, Vienna, 1896-97, street façade.

There is an important difference between this post-modern eclecticism and the eclecticism of the nineteenth century. The nineteenth century took seriously the historical paradigms it had adopted, just as those who insisted on the neo-gothic architecture of so many American college campuses still took its medieval precursors seriously, not only or even primarily as artistic models, but because they wanted to preserve at least a trace of the ethos that produced the original. Today such reverence for the past seems a bit naïve. Not that we side with the harsh criticism directed against nineteenth century eclecticism by the Modern Movement; we lack the conviction such fervor requires. Today most would agree that Gropius and his co-fighters failed to resolve the tension between the functional and the aesthetic as they had hoped. As Arthur Drexler remarks in *Transformations in Modern Architecture*, "We are still dealing with the conflict between art and technology that beset the nineteenth century."[3] Once more there is a willingness to accept such tension and an architecture of decorated sheds; once again there is an attempt to relieve the dreariness of functional architecture with borrowed decoration, although today there is little conviction in such borrowing (figure 8). This may be put positively: post-modernist eclecticism takes itself less seriously than its nineteenth century predecessors. It is freer, more playful, less intimidated by the past. But, by the same token, it is also less convinced by its borrowing and less able to convince.

2

In *Complicity and Conviction* William Hubbard writes that "If there is one characteristic that links the diverse art movements of the modernist period, it is perhaps a hyperawareness of the fact that one's personal sensibility could have been otherwise. A modernist artist is so deeply aware of this possibility of otherwise-ness that he feels a deep unease about simply accepting his own sensibility. He feels a need for some reason that will convince him that he ought to feel one way and not another."[4] This statement invites challenge: to be sure, there is greater awareness of the "possibility of otherwise-ness," and it is not confined to artists, but is simply a corollary of our greater freedom. The less nature and culture determine what we have to be, the greater our freedom; the greater also the dread of arbitrariness. But does successful art not deliver us from such dread, and *not* because it gives us a reason to feel a certain way? As a self-justifying whole, having its telos within itself, the well-made work of art promises to banish the spectre of arbitrariness, quieting our restless freedom, if only for a time. Such a work should present itself as having to be just as it is. Do we need reasons to convince us of this? An artist who feels the need for such reasons would seem to be anxious about his own creative power. Has the glory of aesthetic experience not long been tied precisely to its ability to deliver us from the need for reasons?

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[1] **Hermann Broch, "Hofmannsthal und seine Zeit," *Gesammelte Werke, Essays*, vol. 1 (Zürich: Rhein, 1955), p. 43.**

[2] **See Helen Searing and Henry Hope Reed, *Speaking a New Classicism: American Architecture Now* (Northampton: Smith College Museum of Art, 1981).**

[3] **Arthur Drexler, *Transformations in Modern Architecture* (New York: The Museum of Modern Art, 1979), p. 17.**

[4] **William Hubbard, *Complicity and Conviction: Steps Toward an Architecture of Convention* (Cambridge and London: MIT Press, 1981), p. 5.**

One might thus insist that the answer to the problem of arbitrariness in architecture can only be given by architects who are first of all artists. But such insistence misunderstands the problem. Unlike paintings or sculptures, buildings cannot be autonomous aesthetic objects; architecture cannot just serve the demands of beauty. Indeed, if beauty is understood as self-justifying aesthetic presence, then beauty in architecture is essentially something beyond, or added on to, what necessity dictates. The autonomy that modern sensibility has granted to the aesthetic realm, an autonomy that calls for art for art's sake, has to lead also to a view of architecture as essentially caught between the demands of beauty and those of life. Venturi's claim that "architecture is necessarily complex and contradictory in its very inclusion of the traditional Vitruvian elements of commodity, firmness, and delight" must be taken seriously, as must its consequences.[5] The aesthetic approach, that for more than two centuries has dominated both reflection about art and artistic practice, has to lead to an architecture of decorated sheds. Given such an approach, the proper focus of aesthetic concern is in a deep sense never more than just decoration. But if so, the link between decoration and shed cannot but strike us as arbitrary, no matter how much the decoration may present itself to us as a self-justifying aesthetic presence—as arbitrary as the relation of a strong painting to the wall on which it happens to hang. The problem of arbitrariness in architecture has one root in our aesthetic approach; the other lies in our inability to view buildings apart from any consideration of dwelling, just as sources of aesthetic delight. There can thus be no merely aesthetic answer to this problem.

Venturi does not seem to me to take his own insight into the complexity and contradiction of architecture seriously enough. He still subscribes to the traditional view that a successful work of art, while incorporating and becoming stronger because of ambiguities and tensions, must yet be an integrated whole. Venturi holds architects to the same standard: "But an architecture of complexity and contradiction has a special obligation toward the whole: its truth must be in its totality or its implications of totality. It must embody the difficult unity of inclusion rather than the easy unity of exclusion. More is not less."[6] But how can the demands of life and beauty be reconciled? Venturi's call for inclusion strong enough to master complexity suggests a renewal, albeit in a different key, of Gropius's dream of the complete building, a dream that amounts to a subjection of the demands of life to the demands of aesthetics, and harks back to Wagner's *Gesamtkunstwerk*.[7] Against this, I would insist on the essential difference between aesthetic objects and dwellings. The very self-sufficiency of the former, which bids us keep our distance, makes them essentially uninhabitable. An architecture of decorated sheds should give up all claim to the creation of aesthetic wholes. But to give up that claim is to give up also the claim to all merely aesthetic answers to the problem of arbitrariness in architecture.

3

I have linked the problem of arbitrariness to our greater freedom. To this, one may object that freedom has here been grasped inadequately, because only negatively: true freedom is not freedom from constraint, but rather to be constrained only by what one really is, by one's essence.

This suggests that the problem of arbitrariness might be met by returning to what is essential. Some such reasoning supported the modern movement. Loos condemns the aestheticizing architecture of his time for heeding merely subjective aesthetic whim, leading both the individual and architecture to lose their place in that larger whole to which they should belong. He likens a villa built at an Alpine lakeside to an "unnecessary screech."

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[6] Venturi, *Complexity and Contradiction*, p. 16.

[7] See Karsten Harries, "The Dream of the Complete Building," *Perspecta 17* (Cambridge and London: MIT Press, 1980), pp. 36–43.

[5] Robert Venturi, *Complexity and Contradiction in Architecture*, 2nd ed. (New York: Museum of Modern Art, 1977), p. 16.

"Why is it that every architect, whether he is good or bad, harms the lakeside? The peasant does not. Nor does the engineer who builds a railway to the lake or plows deep furrows in its bright surface."[8] The peasant is at one with nature. Hence the look of necessity of his dwellings. With its emphasis on the subject, modernity has broken that bond. The look of arbitrariness of its architecture testifies to that breach. The engineer, however, once more has to attune himself to nature and to her laws. From the engineer, Loos expects a healing of the rift that our subjectivism has opened up. Structures like Maillart's bridges prevent us from simply dismissing such expectations (figure 2).

But by now trust in the engineer and his attunement to nature is harder to come by. Our deteriorating environment has forced us to be suspicious of technocracy. And we have become less convinced of the functional character of the heroic architecture of the modern movement, which is often better described as having the look of functionality than as being truly functional. From the point of view of a strict functionalism, this look of functionality is as superfluous as any ornament. It might yet carry conviction if we could share the almost evangelical hopes in technology that many had when the modern movement gathered strength. If we today are likely to be made uneasy b the look of functionality, this is not just because we see it as just another form o architectural decoration, but because the ethos that it communicates strikes us as one-dimensional and dehumanizing. Once again we are forced to acknowledg that the problem of arbitrariness in architecture is not first of all an aesthetic one.

The struggle between modernists and post-modernists is thus not adequately understood just as a struggle between aesthetic sensibilities, but between those who prefer less and those who want more. Aesthetic sensibilities carry ethical implications. The struggle becomes one between different determinations of how human beings are to exist. It is with good reason that in *Complexity and Contradiction* Venturi quotes August Heckscher:

> The movement from a way of life as essentially simple and orderly to a view of life as complex and ironic is what every individual passes through in becoming mature. But certain epochs encourage this development; in them the paradoxical or dramatic outlook colors the whole intellectual scene.[9]

Venturi would have us understand his theorizing and building as a contribution to-

2
Robert Maillart, Salginatobel Bridge, 1930.

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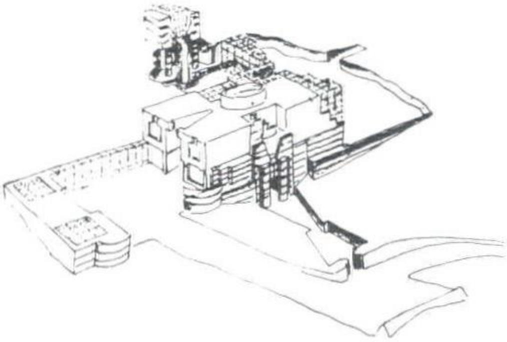
[8] **Adolf Loos, "Architecture," quoted in Joseph Rykwert, *On Adam's House in Paradise* (New York: The Museum of Modern Art, 1972), p. 27.**

[9] **Venturi, *Complexity and Contradiction*, p. 16.**

ward an architecture for a world come of age. The question, however, is whether coming of age is understood here in a way that lets freedom become negative, ironic, and destructive. In *Either/Or*, Kierkegaard has given us an unsurpassed analysis of such an aesthetic life-style, an analysis that shows convincingly that such a life-style must suffer shipwreck on the reef of the arbitrary.



3
Michael Graves, Plocek House, Warren Township, New Jersey, 1977-81, perspective sketch.

4

It is this charge of arbitrariness that Hubbard levels against the work of Venturi, Graves, Eisenmann, and Meier. "Looking at post-modern buildings, we become so aware of how easily the arrangement could have been otherwise that we feel imposed upon; the arrangement feels capricious and we are dissatisfied."[10] The same may be said of the use of traditional elements in novel, and therefore, interesting ways. Consider Graves's use of the keystone motif in the Plocek house (figure 3). Kierkegaard's discussion of the interesting illuminates this version of post-modernism.[11] Such aesthetic play with elements drawn from the past cannot lead to an architecture that carries conviction.

When thinkers despair both of freedom and of finding a natural measure, they tend to appeal to history. Heidegger, to cite just one example, writes in *Being and Time* that "the sole authority which a free existing can have" is that of "revering the repeatable possibilities of existence."[12] Historicism in architecture may be similarly defended. The difficulty with this suggestion is that history does not speak with one, but with many and often conflicting voices. Where do we find a nonarbitrary, i.e., binding, reading of history? If every individual has to offer his own reading, picking and choosing as he sees fit, then the problem of arbitrariness is raised to a different level. If history is to offer an answer to the problem of arbitrariness, it must be experienced not as a reservoir of more or less interesting motifs which we can pick up or discard as we see fit, but as a tradition that determines our place and destiny, in which we stand and to which we belong. This is how Hubbard would have us move beyond the arbitrariness of post-modern architecture. The history of architecture may be looked at as a history of changing conventions concerning what constitutes good building. In that history certain structures possess paradigmatic significance. Implicit in these structures is an evolving ideal image of man. "The architect has in mind an ideal about how people ought to live, and he has chosen those particular conventions because he sees a way in which he can use them to express that ideal."[13] Relating his structure to precursor buildings, while yet attempting to make an original contribution, the architect adds a link to what is a continuing chain. Hubbard invites us to take Harold Bloom's interpretation of poetic achievement as a creative reading of precursor texts as a model for understanding achievement in architecture.[14]

The difficulty with all such views is that just as modern man has fallen out of nature, so he has fallen out of history. We may know much more about history today than ever before, but precisely in making the past an object of scientific investigation, the sense of belonging to the past is lost. We have removed ourselves too effectively from the past to still belong to it. Time has been reduced to a coordinate on which we move back and forth with equal facility. With this the past must lose much of its authority. It tends to become no more than a reservoir of material that we may incorporate in our constructions as we see fit. But with this, the problem of arbitrariness re-enters.

There is another, more serious question raised by Hubbard's Bloomian account: If we can look at great architecture as offering a creative misreading of some past structure or structures, and that is to say also, as departing from these precursor structures, what gives direction to the departure? Hubbard appeals to an ideal of how people ought to live. If that ideal were to be rejected, the architecture that communicates it would also meet with little sympathy. But Hubbard also believes

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)
ubbard, *Complicity and Conviction*, p. 7.

3
ubbard, *Complicity and Conviction*, p. 155.

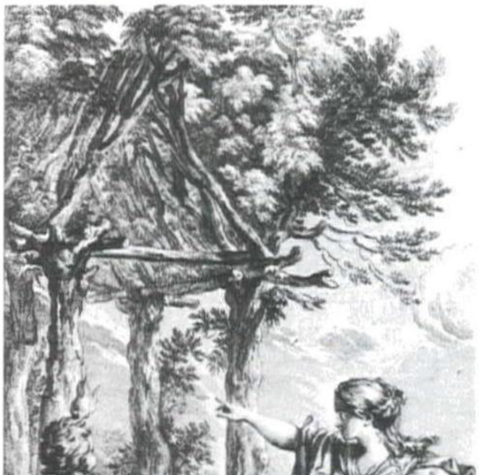
1
ee Søren Kierkegaard, "The Rotation Method," *ither/Or*, vol. 1, trans. Walter Lowrie, D. F. Swenson, nd L. M. Swenson (Garden City: Doubleday Anchor, 959), pp. 279–296. Also Karsten Harries, *The leaning of Modern Art* (Evanston: Northwestern, 968), pp. 49–60.

4
ee Harold Bloom, *The Anxiety of Influence* (New ork: Oxford, 1973).

2
lartin Heidegger, *Being and Time*, trans. J. lacquarrie and E. Robinson (New York: Harper and ow, 1962), p. 443.

that ideals are human creations and that one function of architecture is to infuse reality with such ideals. "We in society want to be able to believe in ideals about the places we inhabit, but we know that such ideals are indefensible."[15] The architect can count on this will to believe. Architecture helps to replace meaningless reality with a theatrically, or rather architecturally, transformed reality, which draws us in and, as we surrender to it, grants us an illusion of meaning. We become actors on a stage that lets us forget the reality it conceals. Somewhat like Sartre, Hubbard has faith in man's ability to create meanings in a meaningless world. This faith "says that of course the world, as given, doesn't make sense, but that we can make sense of it and we are the only ones who can."[16]

This is, I am afraid, a vain faith. Meaning cannot finally be made or invented; it can only be discovered, where such discovery will also be a self-discovery. All meaning that presents itself to us as freely created must seem arbitrary, and precisely because of this it cannot convince. Without an ideal or an essence to guide our manner of departure from precursor structures, such departures must lack direction. The chain will be broken. Architectural theory cannot dispense with dreams of an ideal architecture, an architecture that would do full justice to the requirements of human dwelling.



4
Marc Antoine Laugier, *Essai sur l'Architecture*, 1753, frontispiece.

5

Such a requirement is of course not at al novel. As Joseph Rykwert points out in *On Adam's House in Paradise*:

> The return to origins is a constant of human development and in this matter architecture conforms to all other human activities. The primitive hut—the home of the first man—is therefore no incidental concern of theorists, no casual ingredient of myth or ritual. The return to origins always implies a rethinking of what you do customarily, an attempt to renew the validity of your every day actions, or simply a recall of the natural (or even divine) sanction for your repeating them for a season. In the present rethinking of why we build and what we build for, the primitive hut will, I suggest, retain its validity as a reminder of the original and therefore essential meaning of all building for people: that is, of architecture. It remains the underlying statement, the irreducible, intentional core, which I have attempted to show transformed through the tensions between various historica forces (figure 4).[17]

The difference between Rykwert's claim and any conventionalism is evident. Conventionalists will seek to escape from arbitrariness by grounding practice in an on-going tradition. But we moderns have become too reflective, too critical, to simply entrust ourselves to what has been. No longer are we willing to repeat what has long been done, just because it has become part of a tradition. At the same time we are not satisfied with departures from tradition because of some merely subjective whim. We have no choice but to attempt to articulate what is essential or natural. Such articulation is the point speculation about the appearance of the original or primitive hut. The primitive h has played a part in architectural theory that parallels that of the social contract i political theory. Whether there ever was such a hut matters as little as whether there ever was such a contract. Both are

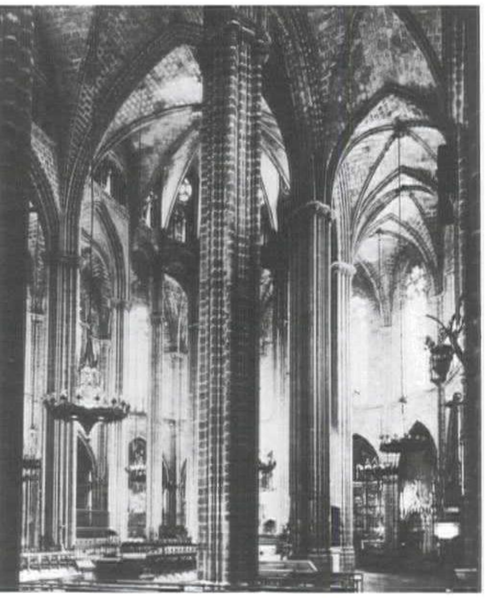
[15] Hubbard, *Complicity and Conviction*, p. 153.

[16] Hubbard, *Complicity and Conviction*, p. 158.

[17] Joseph Rykwert, *On Adam's House in Paradise*, p. 192.

constructs of reason meant to legitimate a certain practice; in this they are characteristic expressions of the Enlightenment and of its confidence that the authority of reason and nature could replace divine sanction. And although we have grown less confident about the power of reason, our confusions leave us no reasonable alternative to reappropriating the lessons of the Enlightenment. We, too, have to try to recover origins, where the return to origins is not so much a turn back to the past as a turn to what is essential. In this sense the speculation of the ex-Jesuit Marc Antoine Laugier may be said to present an abiding challenge.

Not that we are likely to be convinced by Laugier's *Essai sur l'Architecture.*[18] We have learned to be wary of appeals to nature. All too often such appeals have been unmasked as historical prejudice claiming a dignity for what is proposed that does not belong to it. Consider the way in which Laugier arrives at his version of a natural language of architecture. Laugier begins with man in the state of nature. Among his needs is the need for shelter, a need which cave and forest meet only inadequately. The attempt to remedy that inadequacy leads to the construction of the first house, the paradigmatic building. Architecture, in this view, may be said to be both: the image of the cave and the image of the forest. (In *Intentions in Architecture*, Christian Norberg-Schulz has offered a version of the same view: "The cave represents the first *spatial* element, in contrast to the vertical-horizontal relation which is an ordering principle. The unification of these two factors created what we may call 'the first architectural symbol system.'"[19]) As Laugier presents this system, the forest is allowed to triumph over the cave. Only columns, entablatures, and pediment, representing the supporting uprights, the horizontal members they carry, and the inclined members that make up the roof of the primitive hut, are considered essential parts of architecture. Walls, windows, doors, and the like are permitted, but are said to make no essential contribution to beauty. The turn to the primitive hut does not mean a functional approach to architecture. What lifts architecture beyond mere building is its power of representation. Successful architecture represents building. As a variation on the theme stated by the primitive hut, all great architecture recalls us to an ideal of genuine dwelling.



5
Cathedral of Barcelona, begun 1298, apse "forest of columns".

Supposedly born of the need for shelter, and informed by the natural shelter provided by caves and forests, the primitive hut turns out to look rather like the then much revered and imitated temples of antiquity. Not that Laugier thought the architecture of antiquity beyond criticism. The past too has to be questioned. Only reason can endow past structures with the legitimacy that makes them models worthy of imitation by showing that they are representations of the archetypal building. But was the Greek temple constructed in the image of Laugier's primitive hut, or was that hut constructed in the image of the Greek temple?

When Laugier thinks of exemplary structures, he is not only thinking of the architecture of the ancients. Gothic architecture with its forest of columns is given a similar legitimacy and takes its place beside the architecture of the ancients as a second paradigm (figure 5). Laugier's *Essai* has been shown to have encouraged neo-gothic architecture.[20] But this only reinforces suspicions that his hut owes more to cultural preferences, characteristic of the region and the period, than to the voices of reason and nature. It leads to an architecture of sheathed skeletons, appropriate to a heavily forested region, rather than to an architecture of continuous surfaces, appropriate to a region where the natural building materials are mud, brick, or stone. Laugier's "nature" speaks with a very regional voice. And Laugier's interpretation of this voice is very much shaped by his historical situation.

Region and history help determine what we find natural and hence inevitable. But the less an individual is bound to a particular place in space and time, the weaker that determination, and the greater the uncertainty about what is to count as natural. This helps to explain why the problem of the arbitrariness of architecture is characteristically modern. We have greater difficulty constructing our ideal hut than Laugier did.

Nevertheless, if there is to be responsible criticism of what has come to be established and accepted, it must be possible to challenge conventional wisdom by appealing to a more primordial understanding, less subject to the prejudices of the time. Even if ideals are never given but precariously constructed, inevitably tarnished by cultural prejudice, this does not mean that they are therefore arbitrary. What gives their construction direction is the tension between conventional wisdom, and what more profoundly claims and affects us, between what one says and does and what one feels should be said and done. Even if we can never seize the dream of a building that would do full justice to the demands of dwelling in such a way that we could say with confidence that we have provided architectural practice with a firm foundation, as a source of regulative ideals such dreaming is indispensable. Laugier's speculations have thus an exemplary significance, as does the Vitruvian account of the origin of building to which it harks back. We are still not done with the Enlightenment. That goes for its architectural theory as well as for its political theory.

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[18] Marc Antoine Laugier, *Essai sur l'architecture*, 2nd ed. (Paris: Duchesne, 1755). *An Essay on Architecture*, trans. and int. Wolfgang and Anni Herrmann (Los Angeles: Hennessey and Ingalls, 1977).

[20] See e.g. Hans Jakob Wörner, *Architektur des Frühklassizismus in Süddeutschland* (Munich and Zurich: Schnell und Steiner, 1979).

[19] Christian Norberg-Schulz, *Intentions in Architecture* (Cambridge: MIT Press, 1965), p. 125.

6

To say that we are still not done with the Enlightenment is not to suggest that we can simply return to it. To appropriate it we have to question and rethink what it thought. One aspect of Laugier's account of the primitive hut that invites questioning is his tendency to equate the need for building with the need for material shelter. But the need for building cannot be reduced to the need to achieve physical control of the environment. Equally important is the need for spiritual control. We cannot live with chaos. Chaos must be transformed into cosmos. Building has thus been thought traditionally an analogy to divine creation: God as the archetypal architect.

Such analogies may mean little today, but one task of architecture is still that of interpreting the world as a meaningful order in which the individual can find his place in the midst of nature and in the midst of a community. Time and space must be revealed in such a way that human beings are given their dwelling place, their *ethos*. When we reduce the human need for shelter to a material need, we lose sight of what we can call the ethical function of architecture. I agree with Hegel's claim that the highest function of all art is not to entertain or to amuse, but to articulate a binding world view; to express to human beings who they are and who they should be. When works of arts come to be for art's sake, that is to say, when the point of art is reduced to that of furnishing occasions for aesthetic delight, that highest function is lost. Architecture, by its very nature, resists such reduction. That is why, given a view of the art-object as a self-justifying whole, architecture has to appear as an impure, a compromised art. But just because architecture is not merely a source of aesthetic delight, but invites a fuller response, because it shapes the time and space of lived experience, it is unavoidable that we should judge it by how ill or well it carries out what I have called its ethical function. Hubbard is right to link the problem of arbitrariness in architecture to that of articulating ideals of dwelling. Any reappropriation of Laugier's primitive hut has to begin with a rethinking of the meaning of dwelling.

One modern philosopher who has thought deeply about dwelling is Martin Heidegger. His description of a Black Forest farmhouse may be read as his attempt to give content to the ideal house that haunts our dreams of genuine dwelling (figure 6). It deserves being quoted at some length.

> The nature of building is letting dwell. Building accomplishes its nature in the raising of locations by the joining of their spaces. *Only if we are capable of dwelling, only then can we build.* Let us think for a while of a farmhouse in the Black Forest, which was built some twohundred years ago by the dwelling of peasants. Here the self-sufficiency of the power to let earth and heaven, divinities and mortals enter *in simple oneness* into things, ordered the house. It placed the farm on the wind-sheltered mountain slope, looking south, among the meadows close to the spring. It gave it its wide overhanging shingle roof whose proper slope bears up under the burden of snow, and which, reaching deep down, shields the chambers against the storms of the long winter-nights. It did not forget the altar corner behind the community table; it made room in its chamber for the hallowed places of childbed and the "tree of the dead" – for that is what they call a coffin there: the *Totenbaum* – and in this way it designed for the different generations under one roof the character of their journey through time. A craft which, itself sprung from dwelling, still uses its tools and frames as things, built the farmhouse.[21]

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[21] Martin Heidegger, "Building Dwelling Thinking," *Poetry, Language, Thought*, trans. Albert Hofstadter (New York: Harper and Row, 1971), p. 160.

There is a sense in which Heidegger's farmhouse may seem to lie more thoroughly behind us than Laugier's primitive hut. If Laugier thinks of his hut in relation to the individual, Heidegger seems to be thinking in terms of the extended family, extended also through time. The farmhouse articulates "for the different generations under one roof the character of their journey through time." Not only space, but also time, are shaped by it in such a way that the individual gains his dwelling place as member of an ongoing community. Heidegger thinks of his farmhouse as located in a definite region. It is born of and a response to that landscape. This thinking of genuine dwelling is thus regional, as it is generational. But what power do such contexts have over us moderns? Must we not develop an understanding of dwelling more appropriate to our changed situation? Or does the shape of modernity threaten genuine dwelling?

lack Forest Farmhouse

7

Heidegger understands genuine building as an interpretation of a more original being-in-the-world that strengthens man's natural sense of place. This being-in-the-world is misunderstood when we think of it, as Hubbard seems to do, in terms of a subject facing a mute world of objects, which the subject then has to endow with meanings. The understanding of the world as a collection of meaningless facts rests on a distorting reduction of experience that must lose sight of the significance of things. As Schopenhauer points out, first of all and most of the time, things "do not march past us, strange and meaningless, . . . but speak to us directly, are understood, and acquire an interest that engrosses our whole nature."[22] First of all, things speak to us. That speech is silenced only by the reduction of things to mere objects, a reduction presupposed by science. But we have to learn to put science in its proper place; we have to reappropriate the truth expressed when we speak metaphorically of the language of nature or of natural symbols. If it is to recall us to a genuine dwelling, architecture must make use of these symbols.

By natural symbols, I understand symbols that can be derived simply from an analysis of man's being in the world. They are not tied to a particular culture or region, although, inevitably, different cultures will appropriate them differently.

The term being-in-the-world, which I take from Heidegger, already implies a rejection of interpretations that would reduce experience to a relation of a subject to objects. First of all, man finds himself not before the world, confronting it as if it were a picture, but in the midst of things, experiencing them from a particular place. Heidegger suggests that our first encounter with things is "ready to hand." The reference to the hand here is significant. I reach for something—it is too high. The body provides me with a natural sense of distance and proximity: what is in the back of me is less available than what is in front of me. Or we can say, the body provides me with what we can call a set of coordinates, very different from the x, y, and z coordinates of geometry, and different especially in that the different coordinates carry different meanings. Up and down, left and right, front and back, all carry value implications which are brought out when we think of the metaphors these terms have furnished.

Up, for example, has a very different significance from down. We can not simply turn a building upside down or rotate it; but we can design buildings to look as if they could be inverted or rotated rather easily (figure 7). The curtain wall invites such a look of invertibility; so do certain simple geometric shapes, such as the sphere, the cube, and the cylinder. We can also design buildings that seem to discourage all such attempts. Think of the gabled roof: its presence seems to resist inversion. I am not arguing here for either a look of invertibility or a look of rootedness. All I want to say is that whatever

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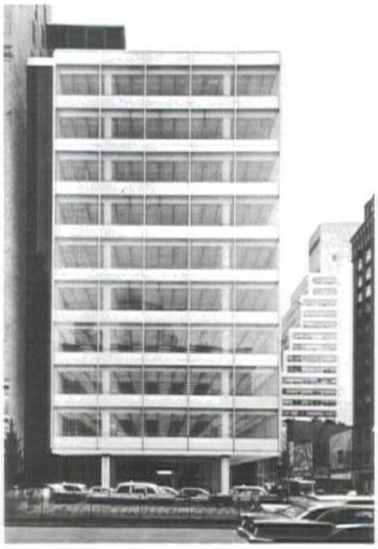
rthur Schopenhauer, *The World as Will and epresentation*, trans. E. F. J. Payne, vol. I (New York: over, 1969), p. 95.



7
World Headquarters, Pepsi-Cola Company (original client), New York City, 1958-59.

choice we make when designing a building, such choice will communicate a particular ideal of being in the world.

And if up and down carry a different meaning, so do vertical and horizontal, inside and outside, dark and light. Light serves to remind us of the way the language of space is also a language of time. Natural light is essentially moving light; changing with the times of the day and the times of the year.

I cannot do more here than provide a few hints as to how one might go about developing an understanding of the natural language of architecture. Perhaps the term "language" is misleading, for if we can speak of a language at all, this is a language addressed, first, to sense and imagination. Before attempts are made to articulate it in words, it needs to be felt. The arts, and more especially architecture, are in a much better position to teach us to listen to this language than philosophy. I can imagine courses that would explore it, but such courses would have to rely on images. There might be, for example, courses just on windows or on doors, or on roofs; or on stairs; but the list is endless. Besides architecture, poetry and painting would help to teach what to listen to. From such courses would not flow prescriptions. They would teach something like a vocabulary. Learning that vocabulary is a necessary, but not a sufficient condition for the creation of buildings that are experienced as necessary rather than arbitrary.

Natural symbols are intertwined with conventional symbols tied to a particular time and region. Consider the cross. Given our tradition, the reference to the cross on which Christ died suggests itself. There are thus architectural motifs that have acquired quite definite meanings. Any pyramid we erect harks back to its Egyptian precursors and to the function of these structures. The pyramid form is thus particularly suitable for grave monuments. But although a conventional symbol, I would suggest that there is something about the simple geometry of the form that makes it not an accident that Egyptians seized on it as they did: the conventional symbol presupposes and builds on a natural symbol. The cross also illustrates this point. But let me give one other example: in church architecture we find quite commonly that the arch separating the nave from the more sacred choir is conceived of in terms that recall a Roman triumphal arch. The analogy between the triumph of Christ and the triumph of an emperor like Trajan is deliberate, although intelligible only to someone who is familiar with the conventions involved. And yet there is something about the arch form that invites such use.

Often the conventional symbolism of architecture rests on the authority of particular texts. Thus the symbolism of a traditional church cannot be understood without the Bible. Beyond that, a quite specific understanding of things as signs is being presupposed. To interpret a gothic, and still a baroque or rococo church, we have to do something very much like decode a message that yields its secrets only when we understand the language in which it is written. This language was thought to derive from figures found in God's two books, the Bible and the book of nature; both speak to us of our life and death, condition and destiny. But do they still speak to us? How seriously can we take the stories of the Bible? And can we still understand nature as book addressed to man?

Between us and such a view stands the characteristically modern and, it seems to me, questionable privilege granted to univocity, to the simple and literal meaning of the text, and to an accordingly strict, or better, narrow, conception of meaning. We owe such insistence on literalness both to science and to the reformation. It is part of modernity, but with this it becomes impossible to make sense of anything like the medieval interpretation of the spiritual significance of things. I would, however, suggest that even if this particular symbolic language lies behind us, even if Scripture no longer offers us the key to decoding the hidden meanings of things, these meanings still speak to us. Indeed, even that conventional vocabulary has not become completely meaningless, for in it still lives a natural symbolism. If architecture is to illuminate and shape the space of everyday life, it will have to open itself to these natural symbols.

There is yet another kind of symbolization that deserves mention. A great deal of the symbolism we find in nineteenth and twentieth century architecture takes the form of a repetition of the no longer understood, or devalued, symbols of the past. Such repetition is raised to a higher power by much post-modern architecture. Instead of trying to recover what I have

loore Grover Harper, Piazza
'Italia, New Orleans, 1978-79.

called architecture's natural symbols, the architect represents and plays with the symbols of the past. Symbols now become representations of symbols; metasymbols. The architecture of Las Vegas so praised by Venturi is rich in such metasymbols. Or think of Charles Moore's Piazza d'Italia (figure 8). Such play cannot escape arbitrariness. What we need is not meta-symbols, but something like an archeology of conventional symbols, an approach to symbols that is not so focused on what is merely conventional that it is unable to understand these conventions as particular responses to something more universally human. Such an archeological approach is also necessary when considering a metaphor like that of the book of nature. While it belongs to a culture irrevocably past, that metaphor can be understood as one attempt to articulate an aspect of human being in the world essential to genuine dwelling and to genuine building.

8

Our being in the world is a being with others. We need to feel at home in our natural, and in our social, environment. Architecture inevitably offers interpretations of both. An obvious weakness of Laugier's account is his neglect of the social dimension. Like the natural men of Hobbes and Locke, Laugier's primitive man is an atomic self, endowed with reason, facing natural needs. Laugier thus shares the subjectivism that is a presupposition of liberal thought. In this respect there is a noteworthy difference between Laugier's and the Vitruvian account. Vitruvius begins not with the singular but the plural, with brutish men brought together, and brought to language and building, by an accidental fire.

Like Laugier's hut, Heidegger's ideal building is also a house, although that house is now thought of as the dwelling place of a family, extending through different generations. But such emphasis on the house must be questioned. In this connection it is well to remember that architectural theory has turned not around one, but around two, paradigms: an ellipse that has one focus in the house, tied to the family more than to the individual, the other in the church or temple. Thus while the idea of the original house has haunted architectural theory, so has that of a divine structure of sacred origin. If the former addresses itself more to the need for physical control, the latter addresses itself more to the need for spiritual control. We should not forget that a good part of what is considered in histories of architecture is sacred architecture. Thus, through many centuries, the history of western architecture is reduced pretty much to a history of church architecture. The church building gained its legitimacy, not as a representation of the first house, but of real and imagined structures that were thought to have God as their real architect, including the Temple in Jerusalem and, even more importantly, the City in Heaven of which *Revelation* speaks. This reminds us of the fact that sacred architecture has traditionally had a public function as the house did not.

I spoke of an ellipse that has its foci in the house and in the temple. The distance between them is related to the distance that separates the private and the public. The ethical function of architecture is first of all a public function. Sacred and public architecture provides a community with a center (or centers). Individuals gain their sense of place by relating their dwelling to that center. We may thus think of private architecture as furnishing a ground illuminated by the figures furnished by public architecture. Think of a medieval town, dominated by its church, by the horizontal of an enormous sheltering roof and the vertical of a tower that the traditional consecration ceremony allows us to link with the ladder of Jacob's dream, a ladder that connects heaven and earth (figure 9). The traditional church is another Bethel, a place of divine promise of enduring community.

There is a temporal analogy: the everyday with its mundane concerns may be considered a ground illuminated by festive times. The ability or inability to celebrate festivals is closely tied to the ability or inability to establish structures or places that let a multitude understand itself as a community, joined by a common destiny.

Modern architecture, however, no longer knows building tasks to rival the traditional church, although we do of course continue to build churches. But the church has become just one building type among others, and hardly one to which most architects would grant terribly much importance. There is no single building type today that could claim to possess the public importance once possessed by the church, just as there is no institution which can claim to have taken over the traditional function of the Church as guardian and interpreter of our vocation. Increasingly, value is located in the private. A corollary of this is the increasing emphasis placed on the house, which has often been discussed in terms that attribute to it almost the sacred quality of a church. Think of the Victorian conception of the house, which even knew its angels. Heidegger's celebration of the Black Forest farmhouse similarly represents a view of architecture that has replaced my ellipse with a circle, having its single focus in the house. Presupposed is the disintegration of genuine community into a multiplicity of individuals and families; a corollary is the formal approach to the law and to the state, both born of self-love and its remedy. And if the disintegration of community should extend to marriage, which threatens to be reduced to no more than a formal and increasingly temporary arrangement between individuals, the house, as Heidegger celebrates it, will also become an anachronism.

But being in the world is essentially both: being a self and being with others. We cannot sacrifice one aspect to the other without doing violence to human nature. Not that these two aspects of human existence will ever coexist without tension. Building must recognize and respect that tension. Every building distributes in its own way the weight to be given to the private and to the public: Each is concerned not with just one, but with both foci of my ellipse, where energies once focused on the church, may today turn to public areas, such as squares, streets, and parks. Perhaps yesterday's church architects will be tomorrow's urban planners. Weren't churches thought to prefigure a city?

9

Problems of building and dwelling cannot finally be resolved by theory; theorizing can, at most, hope to call attention to possibilities and perhaps help to recall us to what matters. But without commitment, there is no escape from arbitrariness. The problem of arbitrariness in architecture is finally an ethical problem. It will be solved only to the extent that architects and those for whom they build are joined by an understanding of what human existence is to be. This is not to suggest that architecture should therefore subordinate itself to moral philosophy. The philosopher's formulations are necessarily abstract and one-sided. As Schopenhauer remarks, "Where it is a question of the worth or worthlessness of existence, of salvation or damnation, not the dead concepts of philosophy decide the matter, but the innermost nature of man himself."[23] The philosopher's words are less likely to touch this inner nature than the built environment. Architecture is at least as likely to edify as philosophy.

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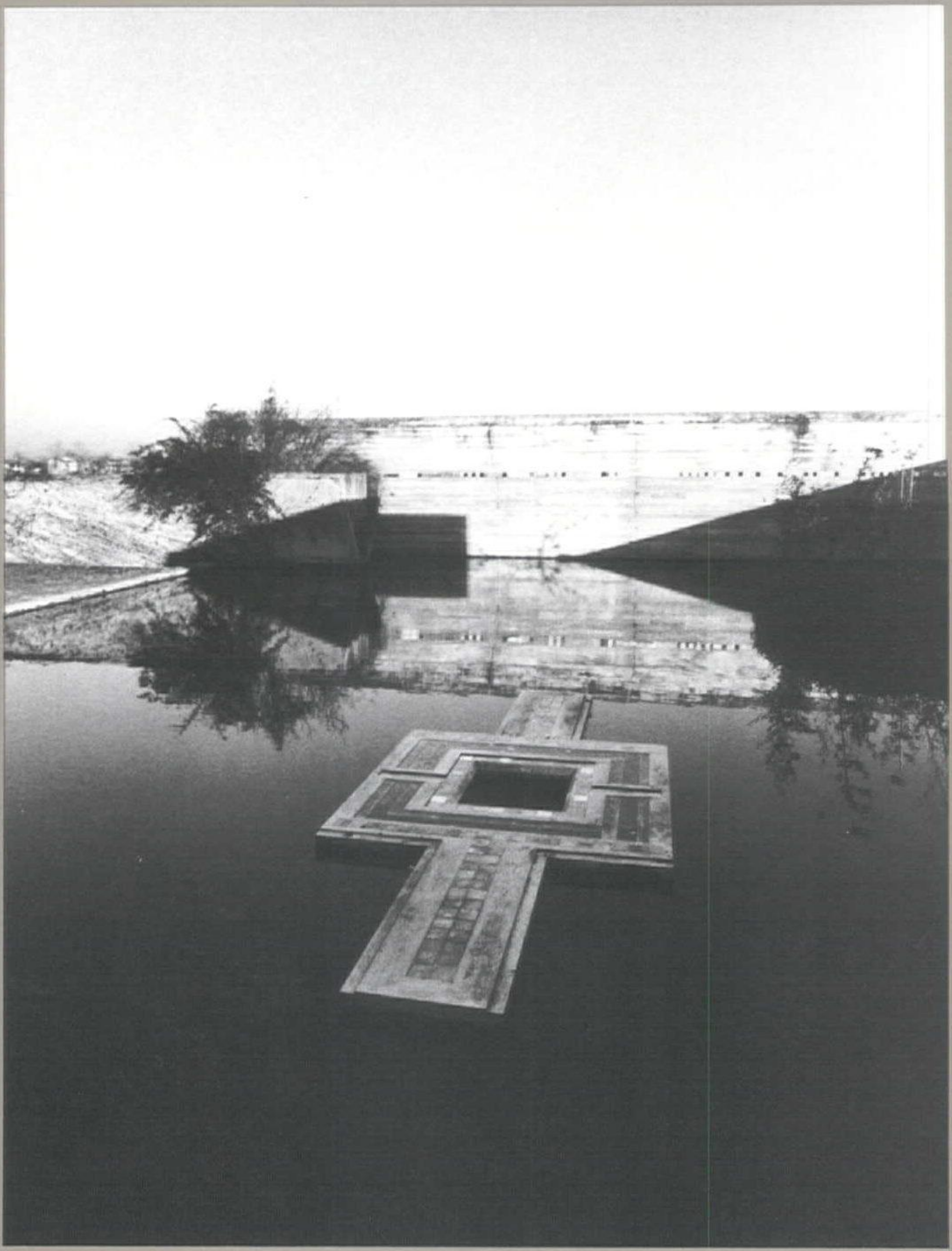
[23] **Schopenhauer, *The World as Will and Representation*, vol. I, p. 271.**

9
Cathedral and city of Chartres, France.

Process and Theme in the Work of Carlo Scarpa



Cimitero Brion; San Vito di Altivole, 1970–72.

Perspecta: The Yale Architectural Journal, Volume 20 0079-0958/83/20021-022$3.00/0

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> . . . and then, one day,
> these words with no sound
> that we derived from you,
> fed on weariness and silence,
> will come to a brotherly heart
> well seasoned with the salt of Greece.
> *Eugenio Montale*

> When my time comes, cover me with these words, because I am a man of Byzantium who came to Venice by way of Greece.[1]
> *Carlo Scarpa*

In the winter of 1978, Carlo Scarpa died at the age of seventy two in Sendai, Japan, following an accidental fall from a hotel staircase. His departure left an emptiness not only among the many generations of architects whom he trained in Venice, but also in the professional world in which he played a unique role.

Neither schooled nor licensed as an architect, he maintained an aristocratic detachment from the common praxis of profession. Although in 1926 he received the diploma of Professor of Architectural Drawing from the Accademia di Belle Arti of Venice, he became an assistant at the Istituto Universitario di Architettura without ever submitting himself to either formal education or exams.

His distance from the ideological debates of the sixties and his proud individualism made him either enthusiastically supported or coldly rejected. He was destined to be treated with suspicion and dismissed as an outsider from the general debate while he was alive, and then acclaimed as a timeless master after his death.

Two highly uncommon episodes mark his relationship to both the academic and professional worlds. Although his career as a professor reached its zenith when he became the Director of the IUAV for a short time, he never received the doctorate degree, *ad honoris causa*, which was long due him and which he was to receive upon his return from Japan. No one had the courage to propose an *ad honorem*, or a *post-mortem* degree since, considering the institution's reluctance to do it when he was alive, it could have been interpreted as a mockery after his death. Ironically, the ceremony did not occur prior to his departure due to one of his typical gentlemanly acts. Answering a request by Carlo Aymonino, Director of the IUAV, to set a date for the ceremony, he chose the day of San Carlo, November 4th, their common name-day. However, the ceremony could not take place on that day because of student unrest in the school, so Scarpa proposed to wait until his return from Japan. He died five days before this new date.[2]

Another episode is the lawsuit brought against him for illegally practising the profession of architecture, the culmination of a campaign of denigration and persecution caused by the increasing attention given to his artistic activity and particularly triggered by his winning of the 1956 Olivetti Prize for architecture. Scarpa was eventually absolved after nine years of humiliation and pain in which both the judicial system and the profession were forced to redefine the distinction between technical and artistic activities.[3]

Five years after his death, Carlo Scarpa is now finally internationally recognized as a true master whose genius and labor provides unlimited material for study. His unconventional methods of making space in relation to culture and society gave impetus to the construction of highly complex architectural forms. In this article the relationship between the production process, (design and construction) and some of the essential themes which are inseparably linked in Scarpa's built work will be investigated.

An essential part of the production process is the act of drawing, as a search for line quality which embodies the solution of functional and technical problems. His drawings, exceptionally captivating to the viewer, are endless episodes of exploration of his own mind and memory; but are never more than instruments of production.

Scarpa's details are too often misinterpreted as exercises in virtuosity partially because of the artificiality of current architectural aesthetics which can isolate image from purpose therefore reversing the process of cause and effect. The complexity of his work is the product of a deep understanding of materials, their elaboration into artifacts and the capacity to reinvent them by extrapolating the work of a few craftsmen with whom he had a lifelong relationship.

His *venetianitas* (Venetian heritage) is the polarity which allows a tense participation with rich and foreign references intended

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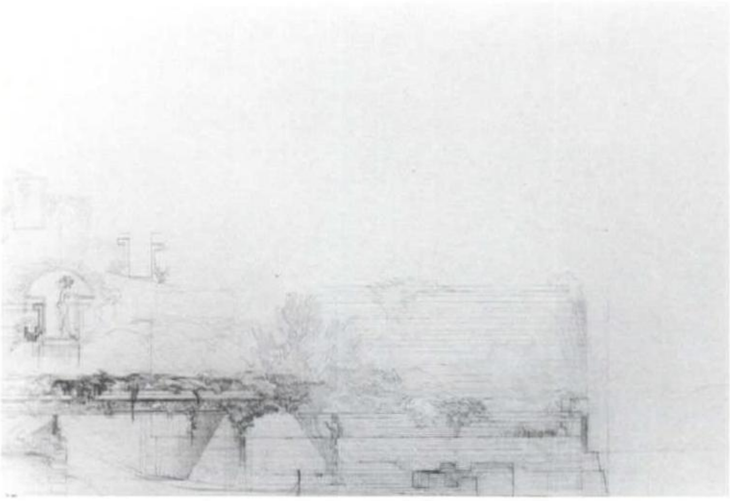
[1] Aldo Businaro, Scarpa's client and travelling companion, recalls, during a December 1981 interview, Scarpa quoting to him the end of a lyric by Eugenio Montale, *We Never Know . . .*, after which Scarpa also added a comment.

[2] From a December 1981 interview with Arrigo Rudi, Architect, who was a former student, teaching assistant and later collaborator with Scarpa on the design of the Banca Popolare di Verona which he completed after Scarpa's death.

[3] "Materiali su Carlo Scarpa," *Architetti Verona*, No. 4/5, February 1980, pp. 20–33.



1
Zentner House addition; Zurich, 1964-68. Drawing of a street elevation.

as instruments of meditation and occasions for invention. Manfredo Tafuri has observed that, ". . . from Venice, Scarpa derives a perverse dialectic between celebration of form and the scattering of its parts, between the will to represent and the evanescence of the represented, between the research of certainties and the awareness of their relativity. . . ."[4] The enormous influence of the work of Frank Lloyd Wright that the young Scarpa avidly studied from books has been extensively pointed out (figure 1). Tafuri writes:

> The elective affinity between Wright and Scarpa rests on a common relish for play; rich of prophetic valence for the first, more hermetic but not less elusive for the second. Play is also a shield to the overflowing of autobiography. Playing, the artisan decomposes his language only to deceive the spectator, to drag him into a labyrinthic universe of signs of which the difficulty of their deciphering is softened by a misleading hedonism.[5]

Scarpa's hedonism is not only self-celebration and autobiography, but also the claim for ironic and critical notations in which neither the client nor the passerby is spared. Hovering above his hieratic gestures is a sort of private pleasure, a mysterious behavior in which secrecy is the final trait of the selfish artist.

This article also investigates the production of meaning in which the selection of essential themes integrates other artistic expressions which Scarpa measured by his Venetian sensitivity and his precise knowledge of its tradition.

"I want to see, therefore I draw."[6]

Discussion of an idea and its drawing were for Carlo Scarpa simultaneous operations of conception and verification of it. He was open to accepting an idea proposed by a collaborator, reserving the right to demonstrate that either it could not be developed or that he could work on it and give it back totally reinvented because of his capacity of penetrating towards its deepest layers to understand its beginning, its embryo, so that he could make it his own again and transfer it into something different than what was proposed.

Drawing was always a projection of a program to be developed into construction; it never became an end in itself; even his most magnificent drawings were the instruments of knowledge.

> Surveying would allow understanding of a form repeating the steps of its first creator. Design process is becoming aware of reality both in the stating of the problem and in its solution. Each solution is not an idea contained by a form, the form itself is an idea. The thinking of solutions is the thinking of form.[7]

Thinking of solutions in architecture can only be a process composed of images, which, initially produced by intuition, must eventually be organized in sequence and compared. Scarpa explained the process to his students during a lecture in Venice:

> I want to see things, I don't trust anything else. I place things in front

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ergio Los, *Carlo Scarpa, Architetto Poeta* (Venice: luva, 1967), p. 17.

anfredo Tafuri, "Cultura e Fantasia di Carlo Scarpa," *aese Sera*, December 3, 1978.

[5] Tafuri, *Paese Sera*.

[7] Los, *Carlo Scarpa*, p. 17.

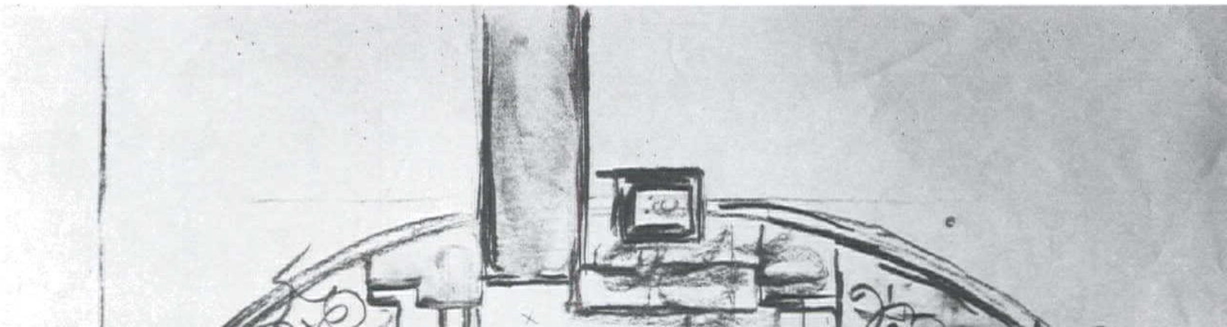
> of me, on the paper, so I can see them. I want to see, therefore I draw. I can see an image only if I draw it.[8]

The choice of orientation of a drawing in relation to his body becomes important, as it will be the orientation which will be maintained throughout the execution of a project. Scarpa faces the drawing as though it is already architecture, with certain parts to his right and others to his left.

To each phase of the design process correspond not only a scale but a technique. Massing studies and the initial planning occur with the use of charcoal on large sheets of very heavy paper which are pinned to a wood board, moistened and then allowed to dry. This is none other than the traditional Beaux Arts technique of the *stretcher*. Large gestures of the hand, which sometimes bring a knowledge that the mind might eventually recognize, create a sign of extreme synthesis and concentration. The charcoal can be easily brushed away with the hand thus allowing for fast change and metamorphosis of the drawing. (figure 2). Increasingly harder grades of pencil line will mark the evolution of the process in a meticulous optical evolution while colored pencils are used to codify sometimes complex space representations where not only what is *seen* is shown, but also what is at the back of the observer, as well as what is beyond the object represented. This method allows for control over the total dynamics of the space and explains the wealth of solutions in alignment, penetration, layering and dialectic juxtaposition of Scarpa's spatial elements. When a decision is reached and a commitment is transferred to the paper, Scarpa uses a line of Indian ink, diluted with water, so as not to disturb the softness of the pencil line. Watercolor and washes are often added to indicate sections, saturate a plane or even to white-out an area so that he can add to it more layers of study (figure 3). The original *cartoni*, which Scarpa used to call the cardboard flats, are the basis for hundreds of additional drawings which found constant and safe reference in the cardboards. This material allows for infinite erasing and redrawing of plans, elevations and sections without losing sight of those previously conquered. In the same visual and physical field different solutions are tested in an endless permutation. The drawing becomes the history of the project and a diary of emotions and first sensations where an interior reality perceived immediately evolves through the drawing into the constructed event.

> In Scarpa's architectural production the relationships between the whole and the parts and the relationship between craftsmanship and draftsmanship allow a direct substantiating in *corpore vivi* of the identity of the process of perception and production, that is, the union of the construction with the construing (figures 4, 5).[9]

It is through drawing that every figure-producing detail and joint is isolated and determined in a system of codes which goes back to projects executed years before. Former projects are used as texts for endless future work in which the same element is reinvented and given new and multiple significations.



2
Banca Popolare di Verona: 1973-78. Sketch for the exedra-garden.

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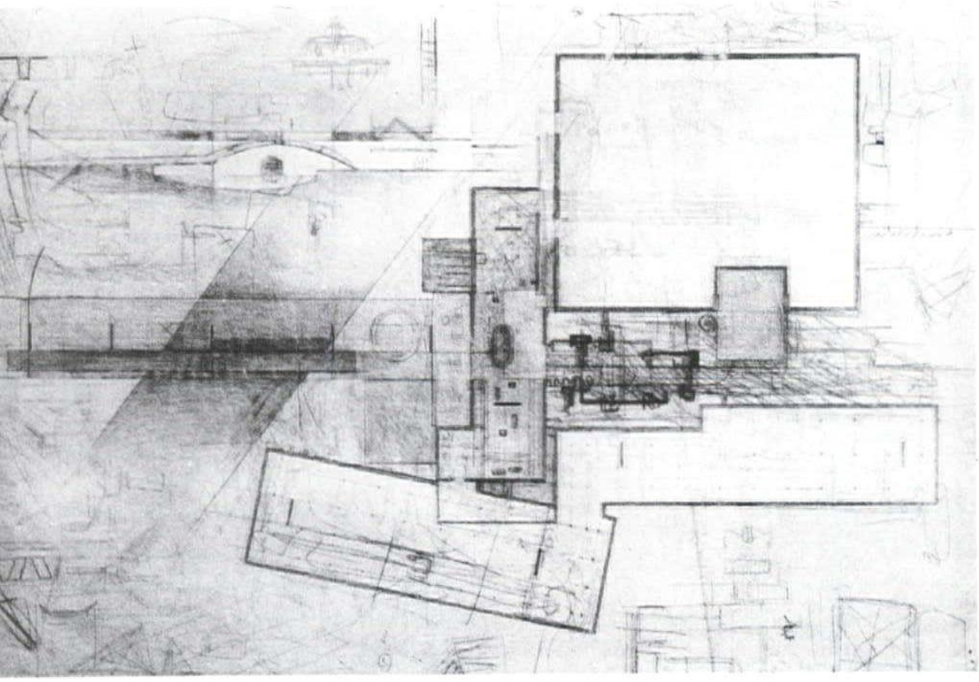
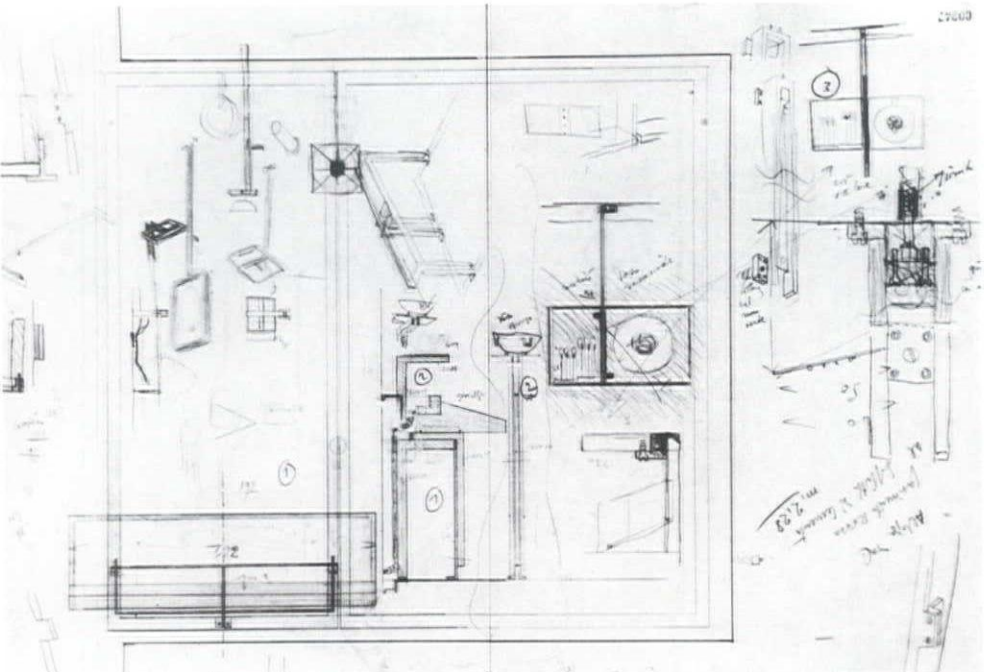
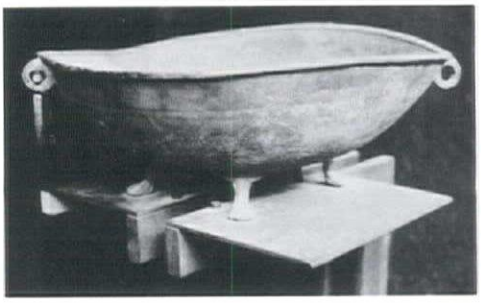
[8] Los, *Carlo Scarpa*, p. 17.

[9] Marco Frascari, "The Tell-the-Tale Detail," to be published in *Via 7* (Cambridge: MIT Press).



3
Plan and elevation study for the Italian Pavilion at the 31st Venice Biennale; 1962-63. Colored pencils and tempera on ozalyd paper.





5
Museo Civico di Castelvecchio; Longobard bronze basin.

4
Museo Civico di Castelvecchio; Verona, 1964. Sacello. Supports for the exhibits found in Longobard tombs. Colored pencils on paper.

All of Scarpa's drawings belong to any of the infinite positions between technical notation and rendering. A drawing might mimic a construction technique and a user behavior, at the same time providing a foresight in the destiny of the object represented, which humanizes it before its realization at full scale and reveals its aging, its becoming in a transcendental time leap. This is the basis for an expression in which:

> The understanding of the work of art is an indefinite process, which continuously develops and enriches its own capacity, it is never exhausted because eternal is the flow of life and knowledge of creation.[10]

"Ornament is the adoration of the joint."[11]

An easy criticism, if not a superficial one, of Scarpa's built work is the apparent absence of a unifying structure, at least of a kind that can be communicated and explained. It is true that to understand his spaces one is required to take infinite spatial-temporal steps to repeat and reconstruct all the moments of invention and the discovery of endless themes to be carried from plan to elevation, from building to building, from the joining of materials to the joining of spaces. If there is in Scarpa's work an ideal of unity, that ideal should not be searched for in the perceived composition of the structure, which would tend to be constantly lost and found, but should be sought in the process or perhaps in the *attitude*. The perceived structure is therefore merely a pretext for a *cognitive one*, a structure of knowledge, which instead provides an understanding of the dynamics of space, of its relation to nature, of the mechanical and expressive qualities of material. This may begin to explain why Scarpa was never really obsessed with the idea of completion and how difficult it is to establish at what point any of his work can be understood as *complete* even to the most knowledgeable and attentive observer.

> . . . he would not start from a general set-up to focus on structural joints and mouldings, he would reverse the process, attacking with ferocious inventiveness and extraordinary tension of energy each and every detail, in order to make them signifying, in the certainty that from their dialogue and interlacement it would spontaneously spring the message of the whole.[12]

It has been pointed out that it is in Scarpa's drawings, where the events or episodes emerge in their pregnancy, that one should look for his spirit. Marco Frascari reported that Scarpa followed the practice of inspecting his buildings at night with a flashlight during the time of their construction to verify visually the execution and expression of details in the contrast of light and shadow and that the same technique was used by another Veneto architect, Piranesi. Piranesi, using the light of a candle, would single out *the expression of the fragments*, that is, the details.[13] The framing of the beam of light would be equivalent to a sheet of drawing paper and again the detail would be placed in a more lifelong development of themes rather than in a limited figural context.

> His drawings . . . of an exceptional strength and delicacy, especially for an architect, are full of a repeated and steady research of such episodes: graphic research of a Piranesian kind, which leads form to a degree of quality just short of its realization as architecture, which is never a mirror of them. Since, becoming architecture, the drawings assume responsibilities which in *ancient* architecture were entrusted to the totality of their compositive structure.[14]

The cause and effect relationship between the parts and the whole still remains to be established in architecture. A valid juxtaposition to the traditional belief that the plan is the generator in architecture is presented by Marco Frascari when he says that the detail has the role of the generator.

> What are the elements of architecture which can be manipulated to achieve a process of signification? A human being who perceives, thinks and conceives undergoes a sequence of processes where the built environment is construed in order to be constructed. Architectural detailing is the result of a process in which there is no taking into account how a house is built, but rather how it is conceived, although most of the time the two processes are iconic. The architectural detailing is based on a technological set

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[12] Bruno Zevi, "Un Piranesi Nato nel'900," *L'Espresso*, January 15, 1981, p. 143.

[13] Marco Frascari, "Façade Design, an Ancient Wisdom of Italians," to be published in *Diadalos 6*.

[10] Carlo Luigi Ragghianti, "La *Crosera de Piazza* di Carlo Scarpa," *Zodiac 4*, p. 147.

[11] Louis I. Kahn, "Louis Kahn at Rice," *Rice Publications No. 4*, 1965.

[14] Sergio Bettini, "L'Architettura di Carlo Scarpa," *Zodiac 6*, 1960, pp. 175, 187.

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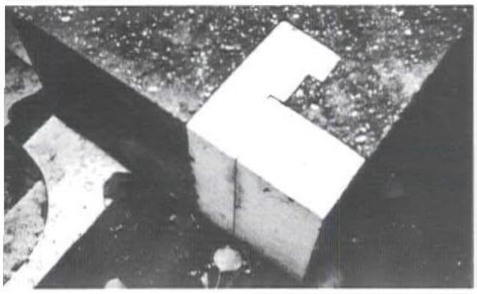
'ascari, *Via 7*.



6
Palazzo Querini Stampalia; Venice, 1961-63. Garden corner detail. Concrete and white marble.

6
rascari, *Via 7*.

> of norms which govern the production of parts, or, rather, the joining of parts, that is, a technique (figure 6).[15]

Frascari follows this with a more specific reference to Carlo Scarpa's work:

> . . . *construction* and *construing* of architecture are both in the detail. Elusive in a traditional dimensional definition, the architectural detail can be defined as the union of construction, the result of *logos* of *teckné*, with construing, the result of the *teckné* of *logos*. The *teckné* of the *logos* becomes the manner of production of the detailed design and *logos* of the *teckné*, which is the expression of the Venetian craftsmanship, becomes the dialectical counterpart in the physical generation of the details.[16]

Some of Scarpa's details provide a microcosm of formal decisions in which the solution of a specific problem becomes the occasion for a process of reflection over its subject matter and ends up furnishing the user with a more valuable, permanent and poetic insight than what the problem could ever have suggested. In this way we can speak of detailing as joinery, narration, discovery, all of which are a critical approach to history and reveal a creative process of form making, from idea to drawing to object.

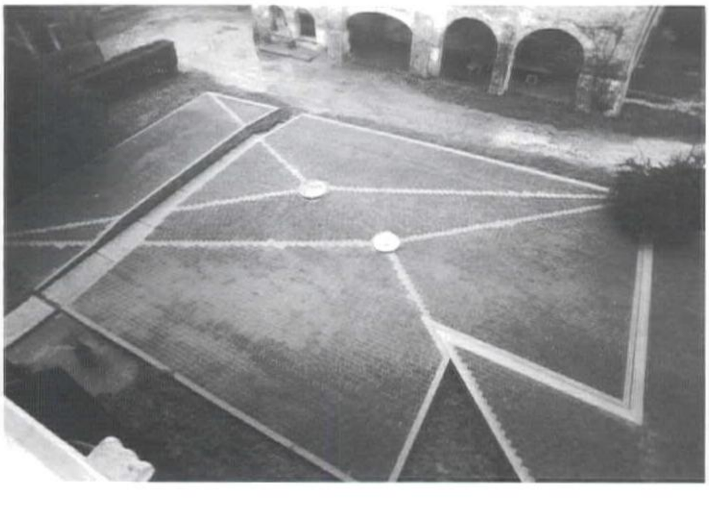
In any case, no matter how one decides to begin an analysis of Scarpa's work, inevitably one finds himself involved in a very laborious process, the process of finding and reconstructing all the threads which make up all the implicit and explicit relationships between parts. It is in the technological discovery that one should search for the key to the solutions of Scarpa's linguistic operations, defining, in this specific case, technology as a selection of solutions to static and decorative problems given in the Veneto hinterland by local craftsmen through the centuries and layered in the customs and culture of the region itself.

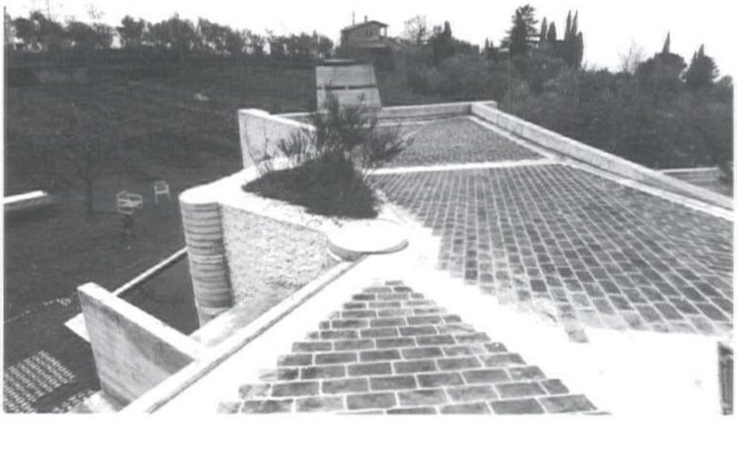
Form being before anything else a system of relationships, the attempt of summing up its components, reinvestigating the different levels at which the components interact and how far the interaction is conducted to finally perform a construct of meanings, becomes a way of studying form itself. It is undeniable that the power of Scarpa's work of being text, is not only transferred and evolved from project to project, but applicable to more universal, and commonly sought, architectural design instruments such as scale, proportion, light and textures, or more enigmatic ones such as space-temporality and collective memory.

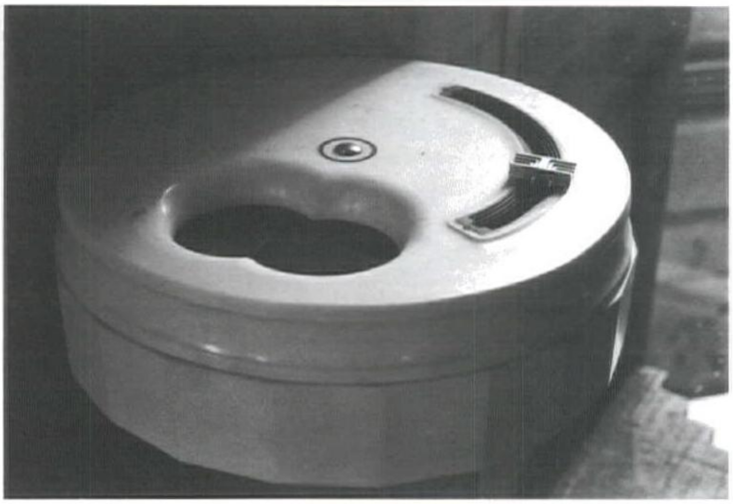
The merging of two different elements into one plastic event can be suggested by comparing the solutions for the courtyard of a 17th Century villa, the il Palazzetto in Monselice, Padova, (1974–75), for Scarpa's friend, Aldo Businaro, and the roof for the Ottolenghi House in Bardolino, Verona, (1975), completed after Scarpa's death by the architect, Pino Tommasi. The two solutions are almost identical; a series of planes, creased like folded and unfolded paper, of common brick set into concrete. Round platforms placed in the intersections of these creases in the courtyard, become the extrusion of the overscaled columns in the house (figures 7, 8).

7
Front courtyard of Il Palazzetto; concrete and brick.

8
Roof of the Ottolenghi House; concrete and brick.







9
Cimitero Brion; San Vito di Altivole, 1970-72. Holywater font. Carrara marble and polished brass.

In the introduction to his book, *Architecture, Mysticism and Myth*, William R. Lethaby defines invention as, ". . . a new combination of those images, that have previously gathered and deposited in the memory: nothing comes from nothing. He (the architect) who has laid up no materials can produce no combinations."[17] Scarpa's memory includes the entire artistic production in Europe between the World Wars–Mondrian, Miro, De Stijl–to which he makes constant visual reference, and the work of Frank Lloyd Wright from which he also derived inspiration.

Much more can be derived from Scarpa's *venetianitas* than the exploitation of traditional techniques or of rich and exotic imagery. His production of one of a kind details is, ". . . born in the pleasure of designing which casts aside any bitterness to grant the joy of the trade, of direct and lyrical contact with materials, wood or marble, metal or water (figure 9)."[18]

To begin to point out Scarpa's capacity for the integration in one event, not only of knowledge, history and construction techniques, but also of the human potential of his collaborators, we should look at the evolution of color in his typical plaster work. The exquisitely Venetian plastering is a technique in which ingenuity and skill play equal roles and comes from a tradition of which the origin has been lost in time. Scarpa's plaster work has reached the age of plastics without giving up the glossy beauty of a surface in which color is mixed in one body with the plaster to obtain a texture and a light quality that are functions of the tool used to trowel it to a mirror finish and of the ability and eye of the craftsman who uses it. Until recently, in the renovation of the entrance of the Palazzo Querini Stampalia in Venice, (1961–63), in the interiors of the Museo Civico di Castelvecchio di Verona, (1964) and the Cimitero Brion in San Vito di Altivole (1970–72), the colors were inspired by strong earth tones: reds to remember the ground brick powder mixed with the Venetian stucco exteriors (figure 10), blacks to juxtapose depth to the concrete structure framing (figure 11). In the addition to the Banca Popolare di Verona (figure 12), (1973–78), however, the plaster work is marked by a very different influence: all the samples prepared by his lifetime friend and executor of plaster work, Mario De Luigi, were derived from a book on the painter, Mark Rothko. De Luigi, coming from a family of painters, lived his entire life in the same formal climate as Scarpa. The intention, in the willingness to evolve a color character which was imbedded in both of these Venetian men's hearts, was to find, like Rothko, a density, a thickness, a depth beyond the surface of the plaster. These results are achieved without question in the purples, greens and blues of the Banca's surfaces.

> There was no great or small painter that Scarpa did not know. He saw Rothko at the Biennale and at Palazzo Grassi. Scarpa was a devourer of books of images, for which he would invest a great deal of money. On this subject he was very stimulating to his students; he would explain how to read a book, not only turn the pages, but to meditate, how to really look and how to make notes. His interlocutors were in the entire histories of architecture, sculpture and painting. The fact that today, in a time of ideological crisis in architecture, one looks at Scarpa, is because of his pragmatism, his experimentalism and the density of his references, which are devoid of cliché and matured in his own experience.[19]

It should also be known that the kind of creative relationship that Scarpa developed over the years with each one of his tradesmen and his curiosity for any technical operation will prompt him to require the disassembling of a machine just to understand in depth whether a technological apparatus could have been used for different applications and results than those routinely accepted. Scarpa had a great ability to stimulate and intrigue

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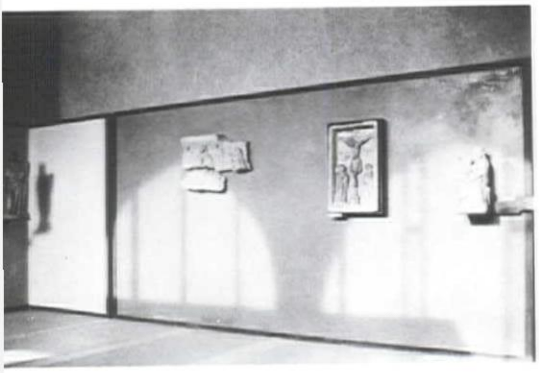
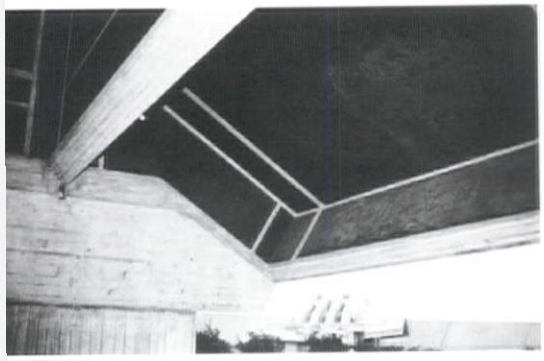
17
William R. Lethaby, *Architecture, Mysticism and Myth* (London: Persival, 1981). p. 21.

18
Zevi, *L'Espresso*, p. 145.

19
Rudi, interview.

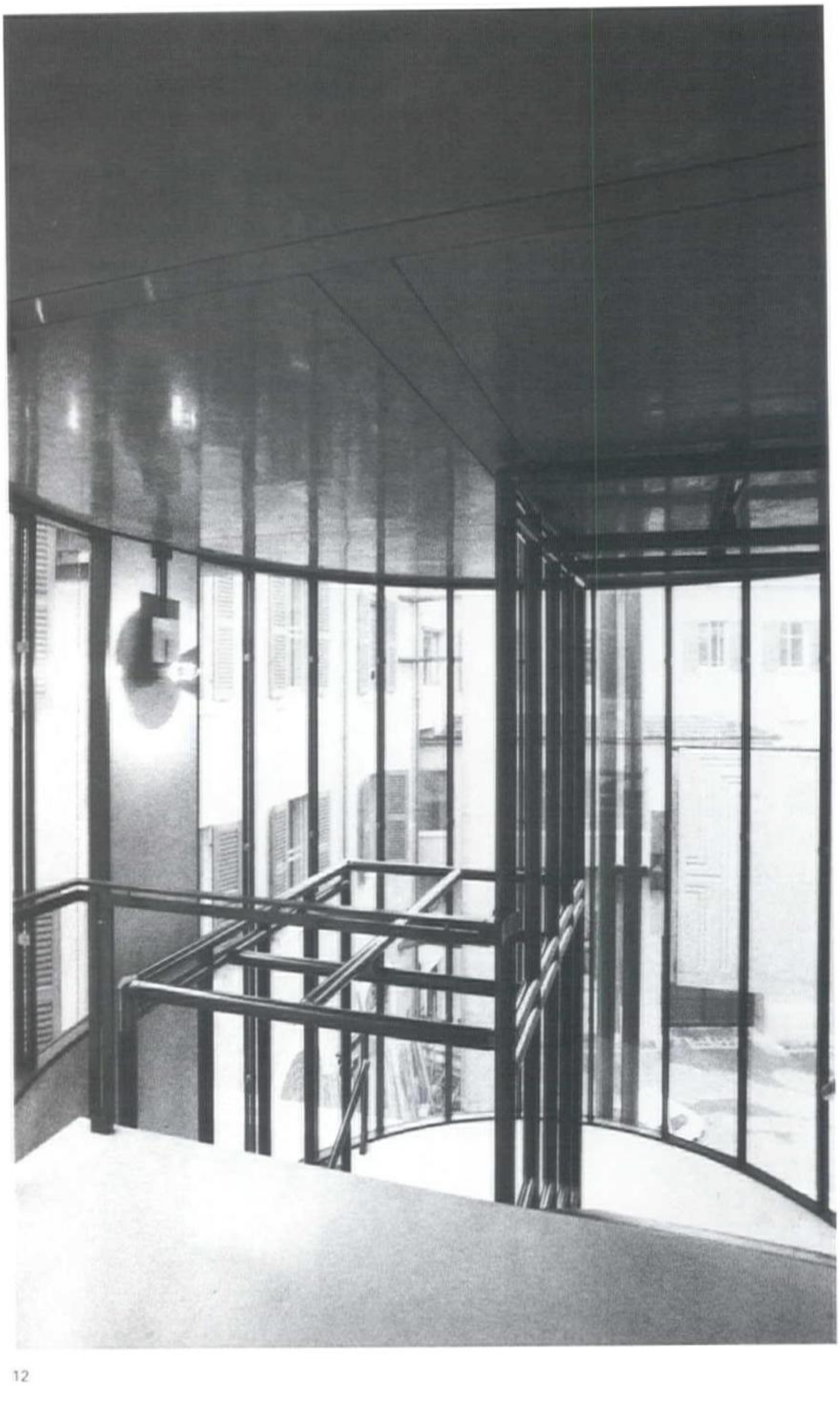




10
Museo Civico di Castelvecchio; concrete and steel support panel with white and red plaster.

11
Cimitero Brion; interior of the tomb for relatives.

12
Banca Popolare di Verona; staircase. Steel and blue plaster.

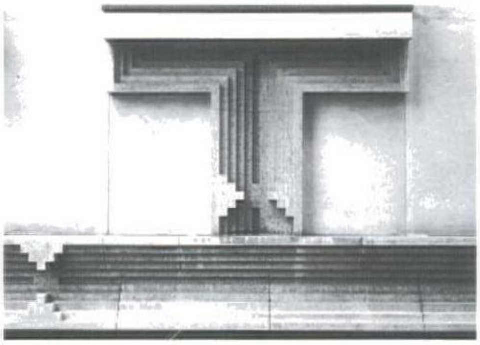


12

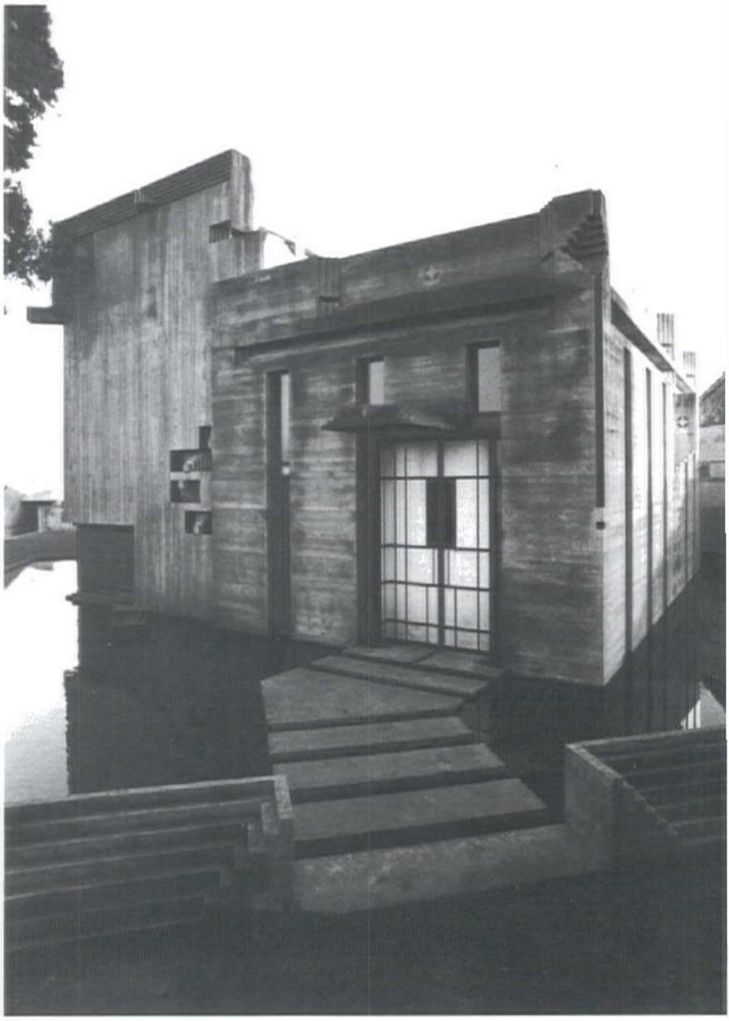
collaborators, instill in them more confidence in their capacity, better understanding of their own tools and their human potential to finally obtain superior motivation, techniques and quality. This was the typical rapport he developed with the three major trades: marble, steel and woodworkers. It is not by accident that Scarpa's stonework techniques are identical to those used by the gothic builders to erect the most complex façades. Each piece of stone is adjusted and laid out in a horizontal plane and is numbered and transfered to its final position in the façade only after there is absolute certainty that the entire system is precisely fitted and all joints are worked out. Once we accept and justify the lengthy and painstaking process of assembly, it might be surprising to find out how easily Scarpa would accept the extension of the traditional manual dexterity of the craftsman by the use of sophisticated machine techniques. The overscaled stone mouldings of the Banca's façade, similar to those in cast concrete of the Brion Cemetery, are here executed mostly by machines (figures 13, 14). Where the machine has to be stopped because, for instance, it cannot cut into a square corner, the stonecutter will intervene and not only complete the machine's work but wil also sand and refinish by hand the entire work to bring back the sensitive surface o a handcut stone.

"Design consults nature to give presence to the elements."[20]

Water as an expressive natural system is, for Carlo Scarpa, more than a pretext for poetic and organic architecture. Water becomes an essential theme used to carry and develop reinvented functions and to manipulate the organization of space. As the theme confronts different historical and contextual situations in each project, a meaning is produced, and meaning inevitably points to the value of appropriateness.



13
Banca Popolare di Verona; facade detail. Botticino marble.



14
Cimitero Brion; elevation of the chapel.

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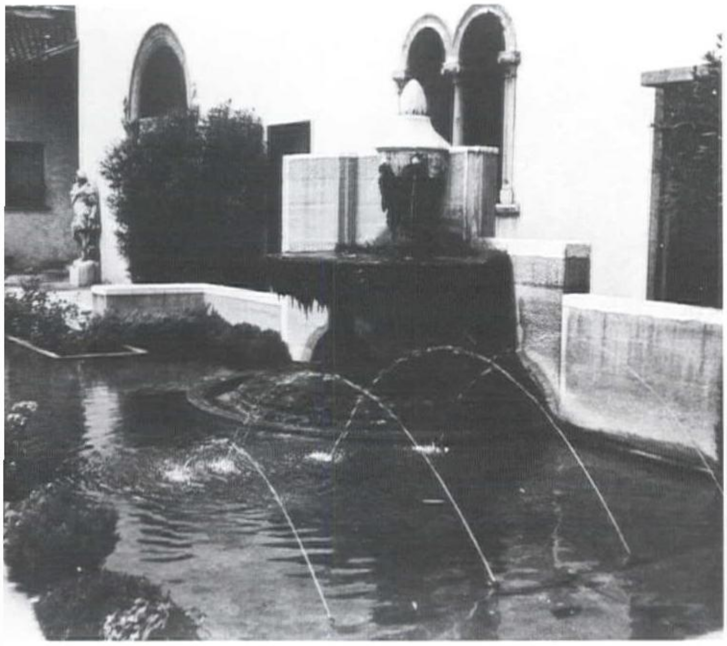
[20] Louis I. Kahn in "Carlo Scarpa," a catalog published by the *Accademia Olimpica* for the occasion of the exhibition of the work of Carlo Scarpa, Vicenza, 1974, colophon.



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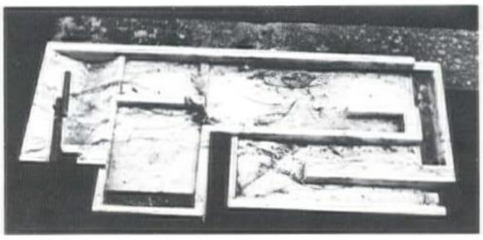
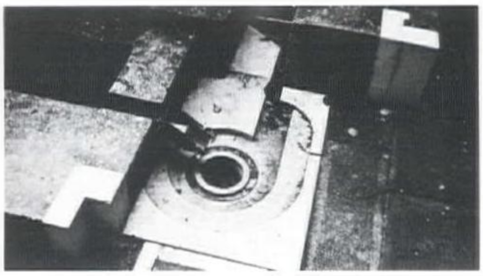




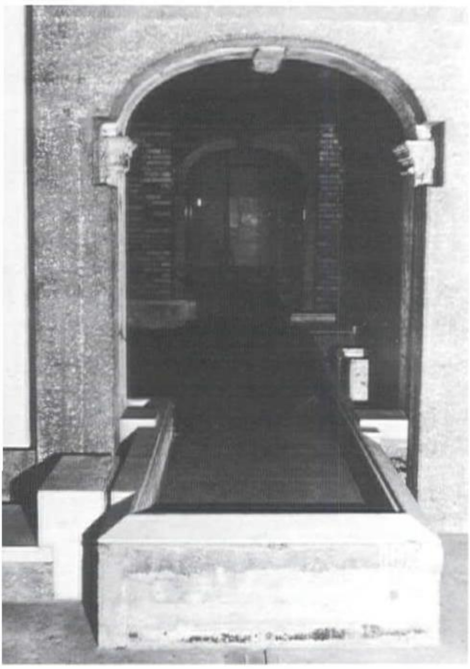
18

16
Museo Civico di Castelvecchio; courtyard fountain.

17
Palazzo Querini Stampalia; detail of the garden water source. Carved marble.

18
Palazzo Querini Stampalia; detail of fountain drain. Carved marble.

> A construction can be called architecture when it pertains to the truth. What truth is, is difficult to establish: mountains, water and sun are true.[21]

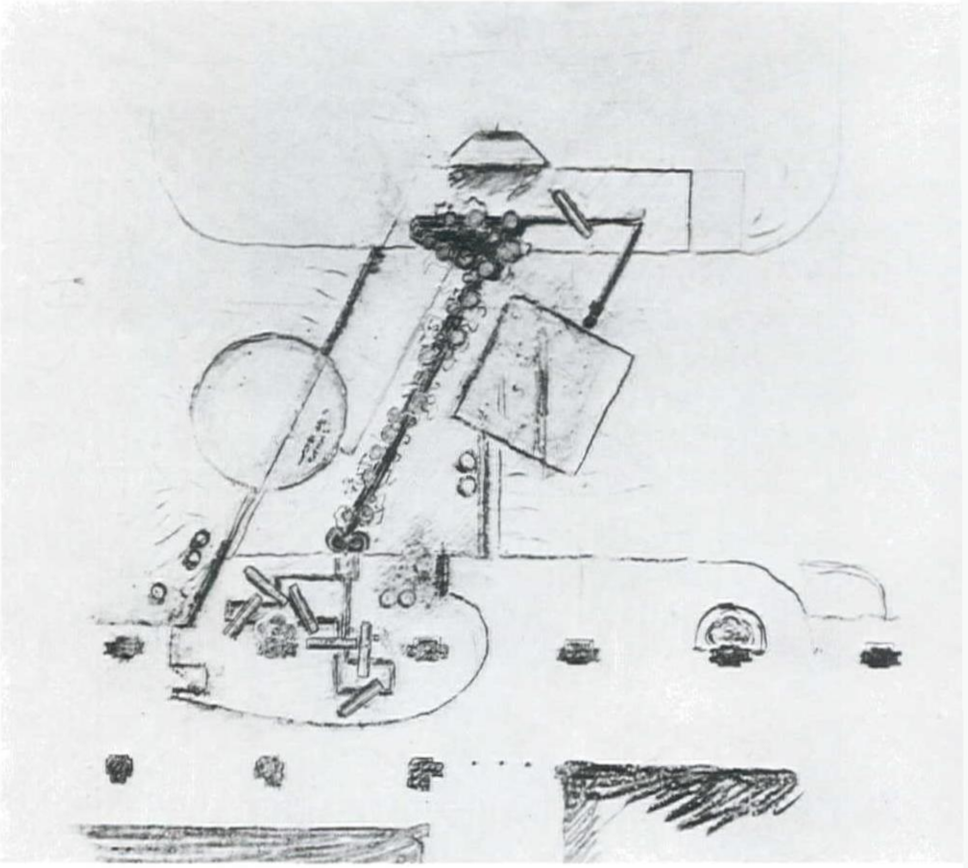


5
'alazzo Querini Stampalia; first loor. Detail of the protected valkway.

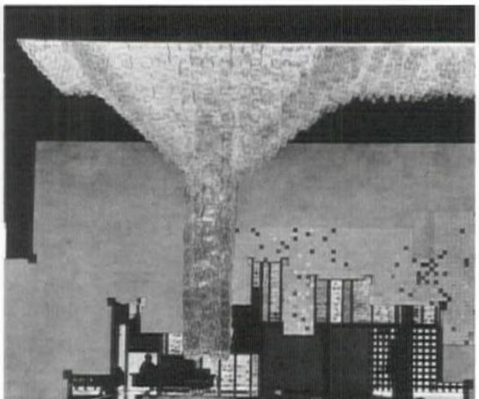
Water is the medium and the condition for Venice's historical and economical survival through the centuries. The *acqua alta*, or high tide, becomes each November a fastidious counterpoint to the city's life but at the same time reveals in full the true nature of each façade by reflecting under an overcast sky, the symmetry and eurythmy of the windows, arches and balconies. Venice, with its colors attenuated by low light, makes more visible its order of textures, line and mass as reflected by still water. In the restoration of the Palazzo Querini Stampalia, the traditional winter condition of the tidal flooding of the first floor is dealt with a typical Venetian tolerance. Water is allowed to flow through intricate iron gates from the adjacent Rio Santa Maria Formosa. We also witness a typical Scarpa solution: the floor is suddenly disassociated from the walls, it becomes a dry tray of stone-capped concrete with its own boundaries which the visitor would not want to violate in fear of losing protection from the unfriendly water. As he creates the principle, Scarpa adds the exception: if one wants to deliberately trespass the uplifted edge of this field, he will find delicately detailed marble and concrete steps going down to the damp and inhospitable outer field (figure15).

A tension is created by the theme of water in its relation to tradition which leads to additional themes recurrent in Scarpa's work such as the dialectic between preexistent conditions and new work, between structural support and the exhibition of an object and the evolution of a construction material subjected to new interpretation. These themes find an even stronger expression in the courtyard of the Museum of Castelvecchio. Water is exhibited as a medium of life, a fountain for the thirsty and a magnificent complex in which a medieval street fountain is grafted in a concrete wall providing a background to a shallow pool in which sound, goldfish and flowering plants create an episode of serenity as they explain the natural vital cycle (figure 16). In the garden of the Querini Stampalia, water is used again as a counterpoint to the treatment of the ground floor of the Palazzo. Its source is a small labyrinth carved in marble which suggests the pain of its forced birth (figure 17). It is then channeled through a long trough parallel to the Rio which extends almost the entire length of the garden. It then passes beneath a stone lion that faces the source, and finally disappears into a drain which is magnificently expressive of the idea of vortex (figure 18).

1
lassimo Scolari, "Considerazioni e Aforismi sul isegno," ***Rassegna 9,*** **March 1982, p. 83.**



19
Studies for the monument to the victims of a Fascist bombing; Brescia, 1974-75. Charcoal and colored pencils on tracing paper.



20
Veneto Pavilion at the *Italia '61* exhibit; Turin, 1961. Central pool.

Scarpa gives water a tragic symbolism in the project for a monument to the victims of a 1974 fascist bombing in the Piazza della Loggia in Brescia. In the first solution, water connects a series of truncated columns placed where the bodies were found. Water visibly runs on a bronze trough placed under the Piazza's paving and opens up into a trapezoidal pool close to the position of the victim who was thrown the farthest (figure 19). By moving in a path made of the orthogonal changes of direction, water tends to recompose the bodies, as represented by columns, from their scattered positions and pull them close to the one at greatest distance. In a successive re-elaboration, less emotional and more meditative, the position of each body is marked by a furrow in the pavement through which water can be seen in motion. The column of the portico arches, torn apart by the explosion, remains an asymmetrical focus of the composition with the laceration in the stone covered with gold leaf as a permanent record of the flash of the explosion.

In the design for the unbuilt new entrance to the IUAV, (1966), Scarpa constructs an absolutely original behavior encouraging people to look at the door. The door is an ancient portal disconnected from the building. Having discarded the idea of u ing the door as an entrance because it was too monumental, Scarpa laid the stone piers and arch in a corner of the courtyard inside a pool of water. In this way, water reminds us of the transparency which is consonant to the idea c door.[22]

And finally, the theme of water, air and color to which Scarpa is totally attuned i central to the design for the Veneto Pavillion, part of the regional exhibit for the National Italia-61 Centennial Celebration in Turin. The theme assigned to the Veneto region could not have been more appropriate: *The Sense of Color and the Government of Waters*. Scarpa integrates these two natural aspects of his region and creates an environment loaded with emotion, organized around an impluviur and a pool where color and vibrating ligh interact with water and find their climax in an everchanging play with a section o sky allowed to participate with its full range of daily changes. The central pool, not only multiplies reflections from the chandelier to the entire space, but collec and reveals its outer boundaries of polychromed vertical mosaics (figure 20).

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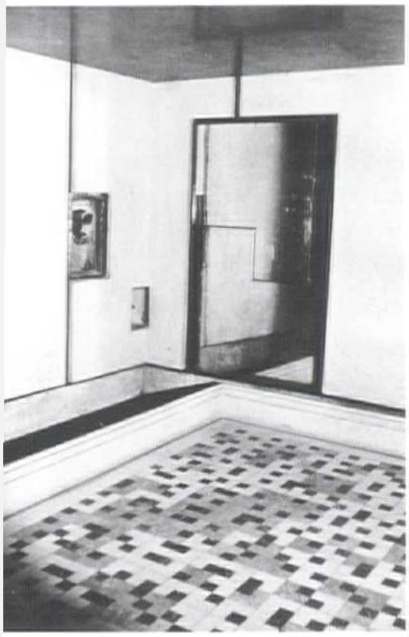
[22] Los, *Carlo Scarpa*, p. 58.

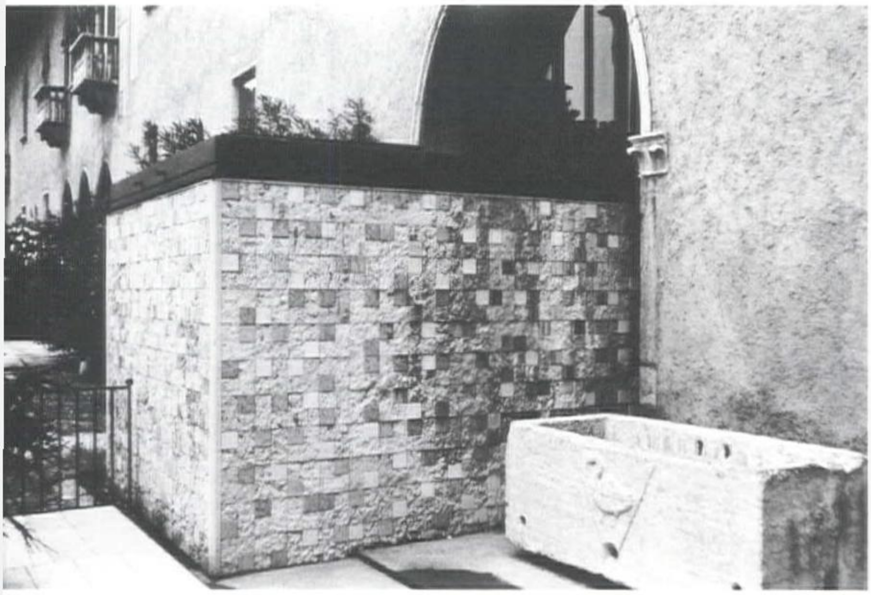


21
Palazzo Querini Stampalia; entrance floor detail. Polychromed marble.

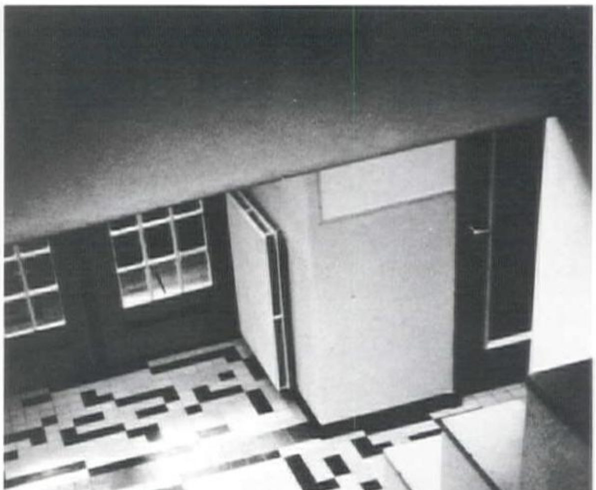
The appropriateness of a theme or even the question of what is theme in Carlo Scarpa's work can be cross-referenced to other issues such as the problem of context, his attitude towards tradition and his reinterpretation of history. No matter where one decides to begin an analysis of the work, he will inevitably end up with the task of following and decoding all the interrelationships of Scarpa's formal components especially when they become occasions for development in successive projects (figures 21–23). There is a continuity which is not too difficult to follow in the many experiences in which Scarpa deals with restoration, additions and reuse. Some major episodes are: the project for the Gipsoteca Canoviana in Possagno, Treviso, (1956); the project for the Olivetti Showroom at the Procuratie Vecchie, San Marco, Venice, (1957); and the Querini Stampalia Foundation. These episodes and others all prepare and announce the work done at Castelvecchio. A common characteristic in all of these projects is Scarpa's capacity to select a few topical moments in which to reveal the individual essence of each project as expressed in an inventive, totally fresh solution. To the Possagno project belongs the surprising simplicity of a window cut into a ceiling dihedron so that light washes the three planes of adjoining walls and ceiling in addition to softly illuminating the white gypsum statues placed into equally white rooms (figure 24). In the Olivetti Showroom there is a complete redefinition of the idea of interior and exterior and its spatial and visual relationship to Piazza San Marco through the Sottoportico, but the crucial condition is the sculpture by Alberto Viani (figure 25).

> Among the few things that Scarpa told me in presenting his architecture of the Olivetti Showroom is this: that he made it as an environment for the Viani sculpture. It is true and it is not true: or better, the Viani sculpture was to him necessary, and that sculpture only, and the architect in choosing it comprehensively as an indispensible component of his formal elaboration, empowered it, exalted it with a sincere and profound homage from artist to artist, which is very rare, and it helps to impose the exceptional human climate in which the artistic work was thought and developed.[23]

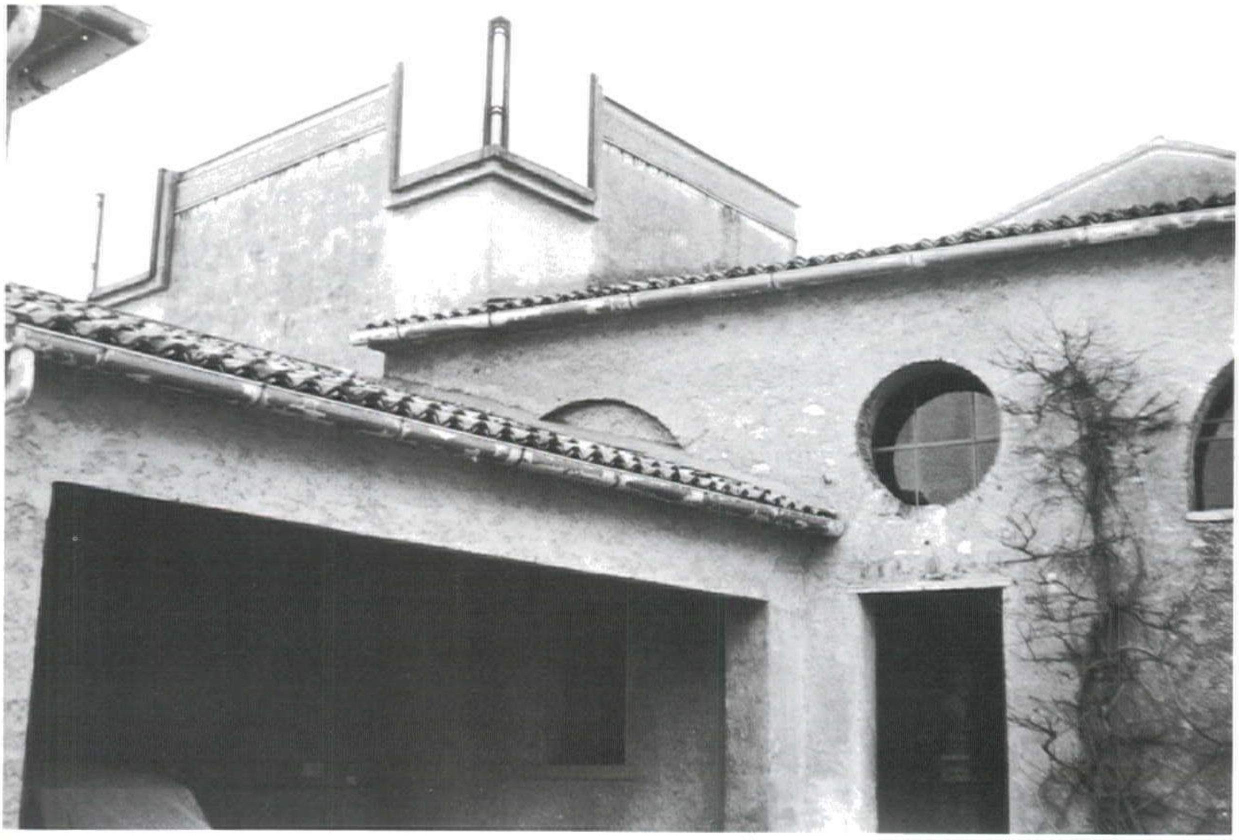
3
egghianti, *Zodiac 4*, pp. 131-132.



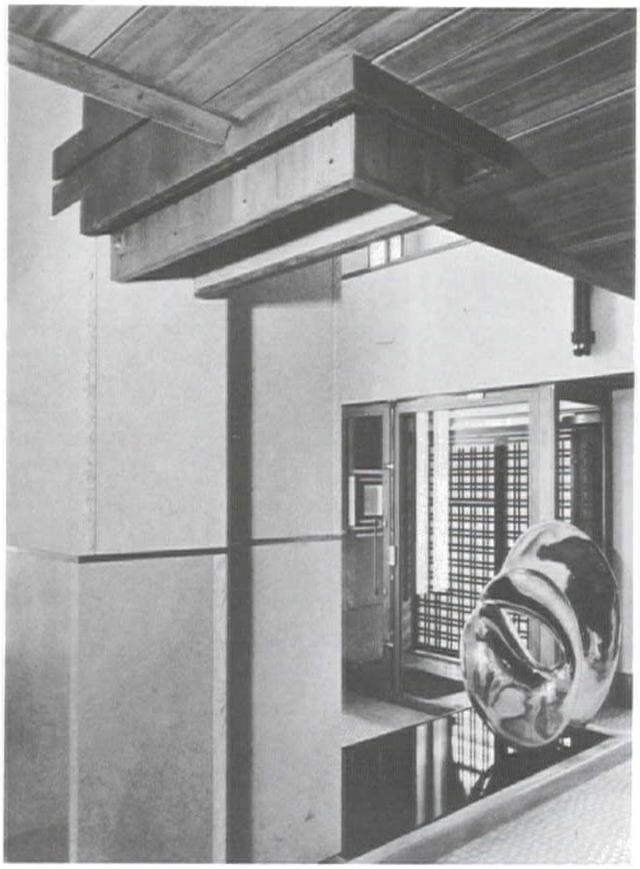
22
Museo Civico di Castelvecchio; Sacello. Verona Red marble.



23
Theo van Doesburg; De Vonk Residence, 1917. Design for a tile floor.



24
Gipsoteca Canoviana in Possagno, 1956-57. Windo
detail.



25
Olivetti Shop; Venice, 1957. Showroom with sculpture by Alberto Viani.

27
Banca Popolare di Verona;
of the office level.

28
Museo Civico di Castelvec
the monument to Cangran
della Scala.

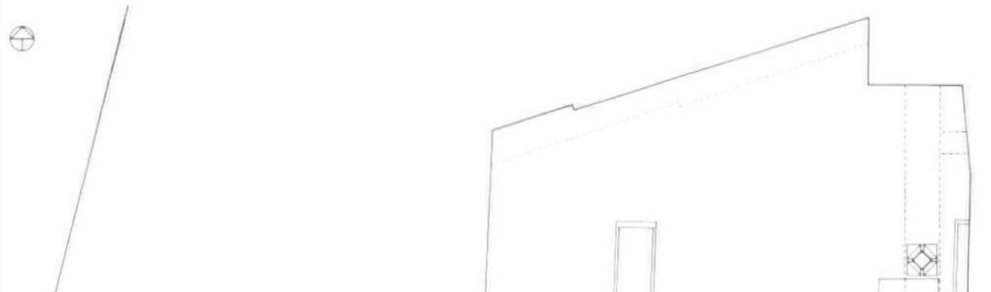
In Castelvecchio Scarpa found a ficticious historical context marked by previous restorations characterized by picturesque style imitations. The building demanded strong reactions which caused, under Scarpa's direction, an almost total gutting of the building and its recomposition.

From the Brion Cemetery on, Scarpa begins to develop a far more abstract attitude, a maturation of more internalized facts that almost border on a meditation about architecture. From now on each solution becomes entirely his own by creating demanding questions to which he is the only one who can give an answer. There is an obstinate interest in solving deeper and deeper a whole series of questions carried from previous projects. In the Banca Popolare di Verona, Scarpa found a huge spatial void, after demolition of the pre-existing building, right in the middle of a tightly packed Roman grid (figure 26). Plan form and façade are in this building totally disjointed. Looking for a critically demanding constraint to work against, Scarpa decided to pick up the one degree and a half difference in the orthogonality to the square of the building to the left and carry it throughout the new construction. This eighty-eight and a half degree angle is carried out in every corner, in every cut stone, in every horizontal grid (figure 27). The façade is disjointed in two planes, one to the piazza and one to the interior.

> In examining the elements of Italian architecture one is likely to observe how the use of structural elements for decorative purposes becomes predominant in the making of building façades. This architectural feature is so prevailing that in many cases a second façade is generated and it stands as screen in front of the base façade.[24]

Scarpa had already tested the concept at Castelvecchio. The separation of the façade from the body of the building, like a *cartilage* or a skin that can be perforated independently from its interiors, also allows for complex episodes of conjunction between sections of the same building. To provide a stage for the equestrian monument of Cangrande della Scala, Scarpa creates a void which makes us aware of the Adige River on one side and the seeming incompleteness of the side of the museum on the other. The statue is the suture of the museum to the medieval wall, the center of a rotational space in which roof, windows and doors, the courtyard and the wall are in tension with each other longing to be recomposed (figure 28).

26
Banca Popolare di Verona: view from the Lamberti Tower.



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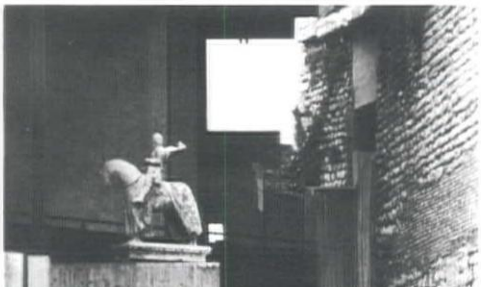


28

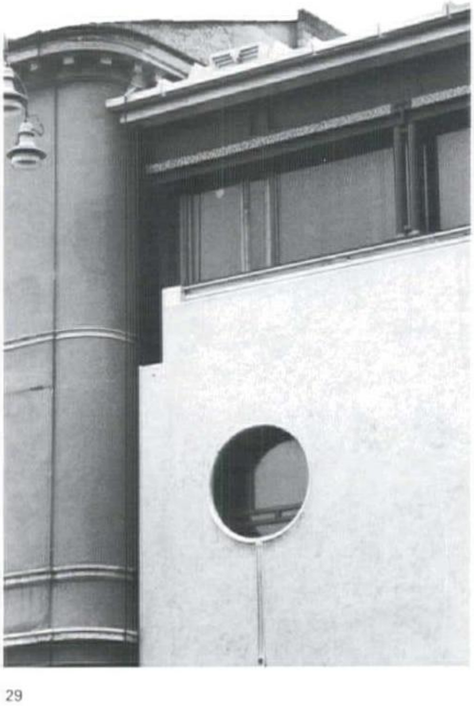
4
rascari, *Diadalos 6*.

> The denunciation of all the parts and their critical connections does not only reveal the refinement of an architect who interprets history and makes manifest all the phases of his intervention as layering and growing of parts, one over another, but is also an exquisitely modern intention.[25]

In the façade of the Banca Popolare the strategy of creating interruptions and voids is again applied as a series of spatial inventions each time the building must be joined to neighboring walls. Examples of these joints are: a rupture to the *palazzetto* to the left (figure 29), a terrace to the right, an extraordinary play of a receding wall which frees a steel and glass staircase and the invention of a steel frame bridge supported at only one point with an inner wood skin (figure 30).

An error was made during the construction of the façade in the treatment of the horizontal I-beam of the tripartite façade. Scarpa, who used to spend unlimited time on all sites and maintained a creative and direct relationship with the building under construction, always took unvoluntary mistakes of the tradesmen as a chance for finding remedies which were at times more significant than the original solutions. Guido Pietropoli, a former Scarpa student, teaching assistant and collaborator for the design of the Faculty of Letters and Philosophy of the University of Venice, remembers how Carlo Scarpa, sitting at sundown at the Caffe Florian in Piazza San Marco, looked up at the frieze of Sansovino's Procuratie Nuove and suddenly realized that the *ovuli* were reversed as opposed to the position which he always thought they were. Only in that reversed position would they take up a pink and blue coloration at that particular time of day; the entire frieze would gleam with color. He understood that a building could become almost magical, thanks to an architectural artifice of that kind. That revelation serve the solution of the mosaics placed between the flanges of the I-beam (figure 31). Instead of letting the sun provoke the color, Scarpa literally uses the bright colo of the glass tiles. The detail is therefore not an expedient but a conscious, fresh and appropriate solution. This episode not only proves Scarpa's capacity to be open to unexpected events, but also the modesty of the man who would possibly justify an execution mistake by criticizing his own design process. If the object is designed well, it will be executed well; if the object turns out imperfect, perhaps that reveals gaps during the design phase or lack of definition in the problem itself.[26]

Already in Castelvecchio, in solving the framing and glazing of all gothic windows and doors, Scarpa negated the existing symmetry of each opening and devised a compositive system in which fixed glazing and operable windows find a geometry of their own, a modern one reflected



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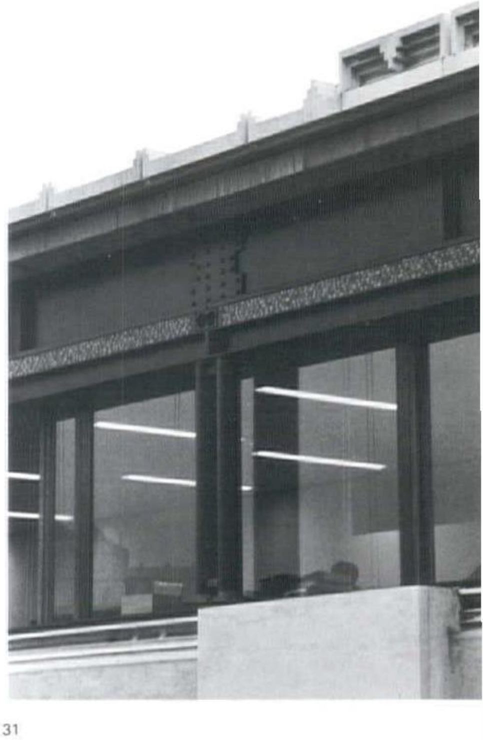

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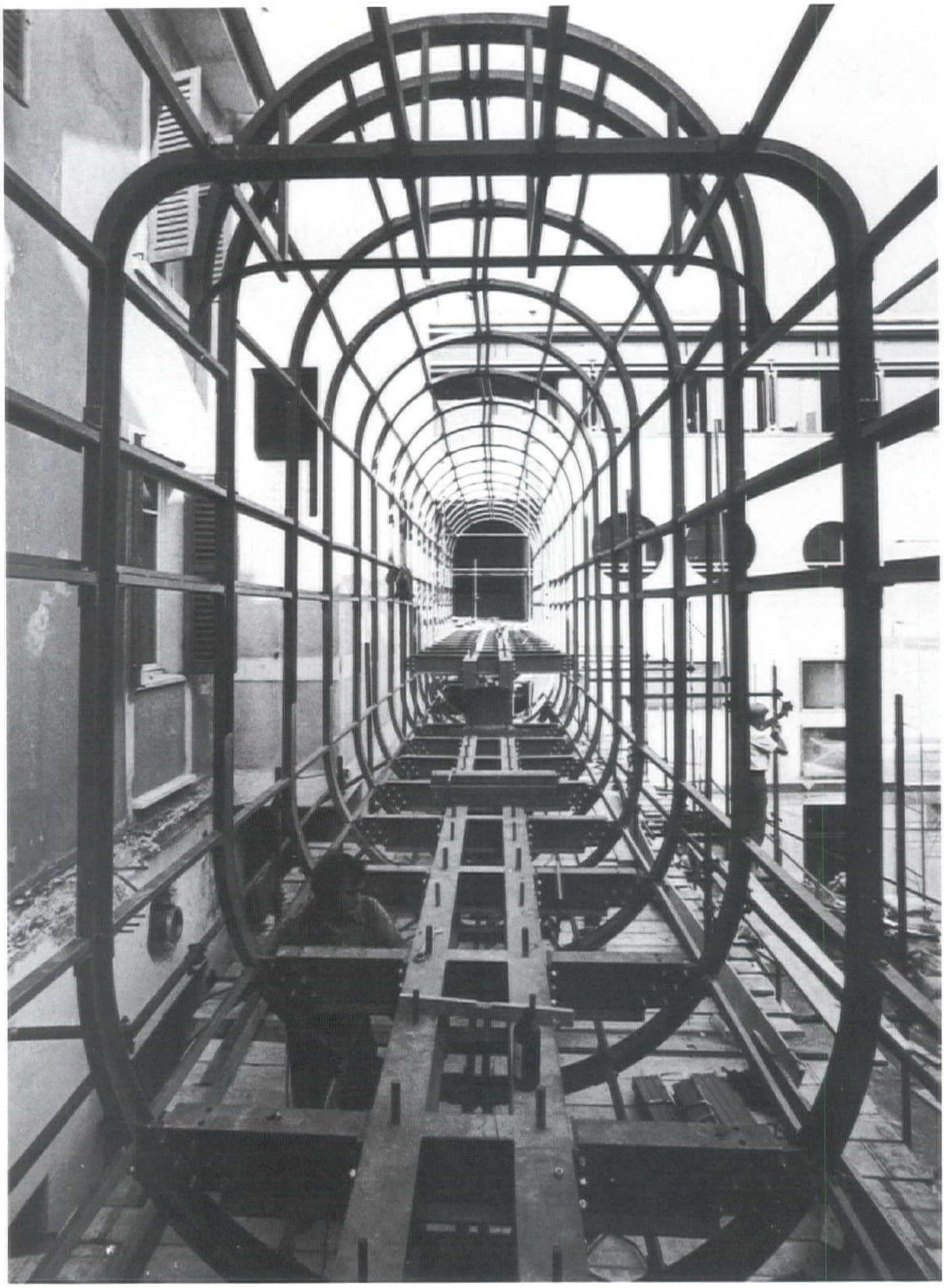
29
Banca Popolare di Verona; facade detail.

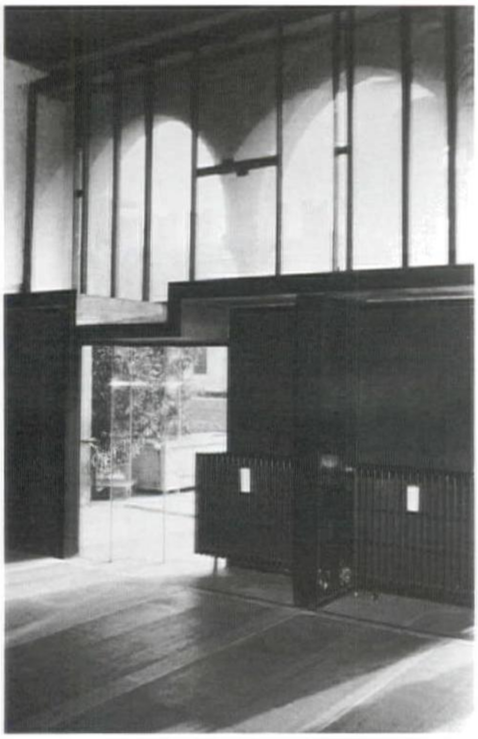
31
Banca Popolare di Verona; facade detail.

25
Rudi, interview.

26
From a December 1981 interview with Guido Pietropoli, Architect, who was a former student, teaching assistant and collaborator for the design of the Faculty of Letters and Philosophy of the University of Venice.



30
Banca Popolare di Verona; the bridge under construction.



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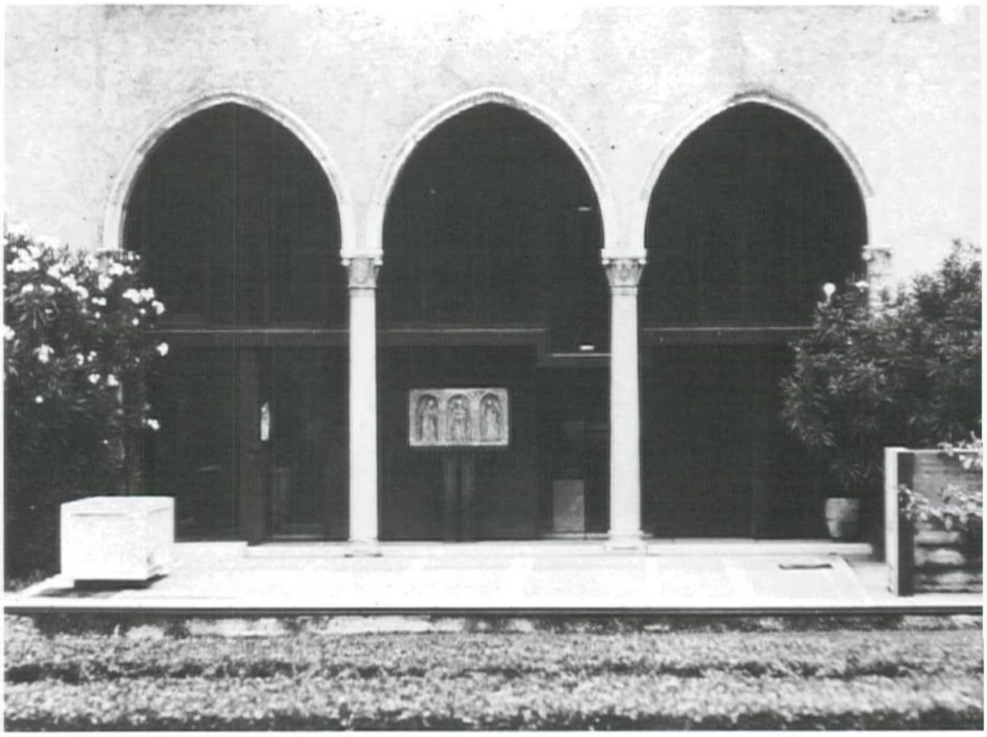

32

on the visual culture of our century which necessitates the disassociation between the inner and outer planes of the wall. The juxtaposition of the passive gothic geometry and the active one of the new interior framing tends to reveal either one of the two systems as predominant to the other, whether observed from inside or outside the building. From the courtyard the new framing quietly stands back while the viewer on the inside will perceive the old stonework encased as an exhibit just like an artifact in the museum (figure 32, 33). In the Banca Popolare the apparently round windows take up by association and analogy the role of the gothic fenestration of Castelvecchio. The privilege of all new construction provides Scarpa with an occasion to utilize his complex knowledge as a Venetian architect along with his experience in the design and handling of stone in relation to water. He gives pulsation to each round opening by splitting it at the vertical axis and by spacing away the two semicircles. This process is made legible by the interposition of an 11 centimeter wide gutter element the purpose of which is to eliminate at a lower level rainwater collected between cartilage and glazing (figure 34, 35). The bi-centered oval is the product of a slow maturation of several intuitions, references and former solutions. Scarpa's image, initially derived from the deformation and vibration one can observe in the shape of the rising or setting sun, or the organic complexity of the egg, so much investigated by Paul Klee, also follows Scarpa's long standing concept of avoiding joints and seams in regions of a form where the form itself would be divided so as to make visible its obvious components. For example, an arch is never cut where it meets the piers, but always above or below the impost according to a sense of geometry in which construction and image are elegantly and dialectically juxtaposed.

"I am a man of Byzantium who came to Venice by way of Greece."[27]

The narration provided by a sequence of spaces produces possible constructs which endlessly verify Scarpa's first intuition. One of the most powerful and emotionally involving of these sequences is the entrance-hall-pool-pavillion in the Brion Cemetery. Once past the threshold, in the dimness of the vestibule, the symbol of the two linked rings is silhouetted against the light of the exterior (figure 36) The two linked rings create abstractly the absolute symbol, or the symbol of the symbol; the Greek root of it means to tie together and the two circles are made to perfectly represent this action. "They also signify fecundity by delineating in the common area the female genital compressed by two breasts."[28]

[27] **Businaro, interview.**

[28] **From a December 1981 interview with Doctor Flavio Pavan, Professor of Psychoanalysis at the University of Pavia.**

seo Civico di Castelvecchio;
tal detail, exterior.

seo Civico di Castelvecchio;
tal detail, interior.

nca Popolare d Verona;
ndow detail, exterior.

nca Popolare di Verona;
ndow detail, interior.

nitero Brion; view of the
stibule.

rromini; study for a church
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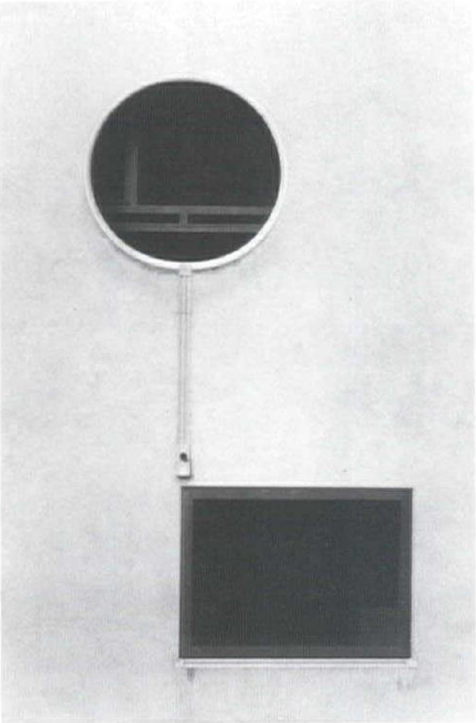

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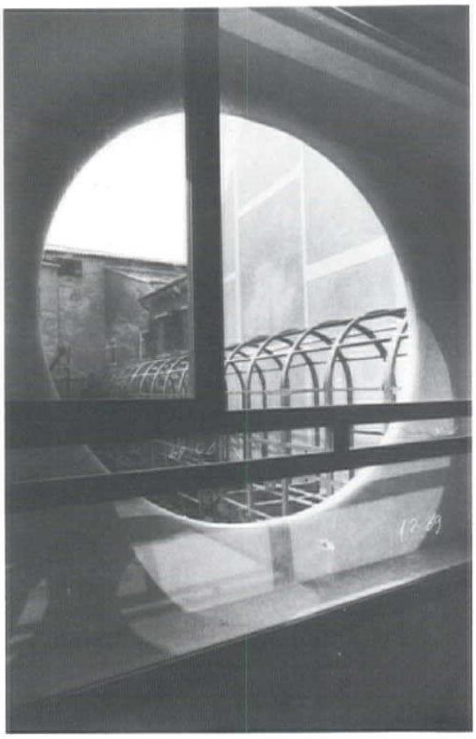

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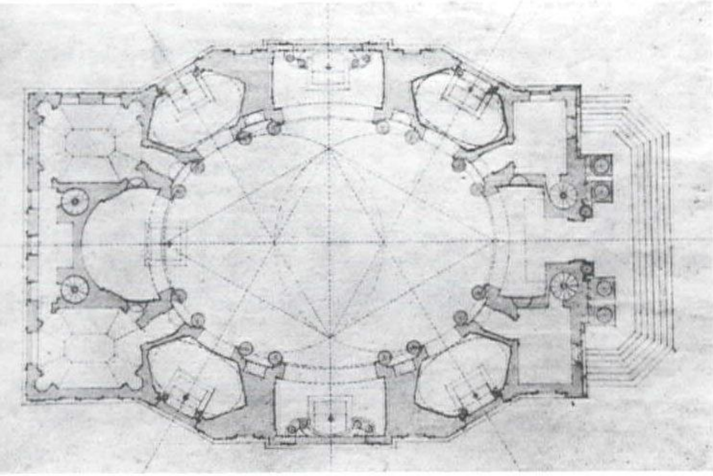

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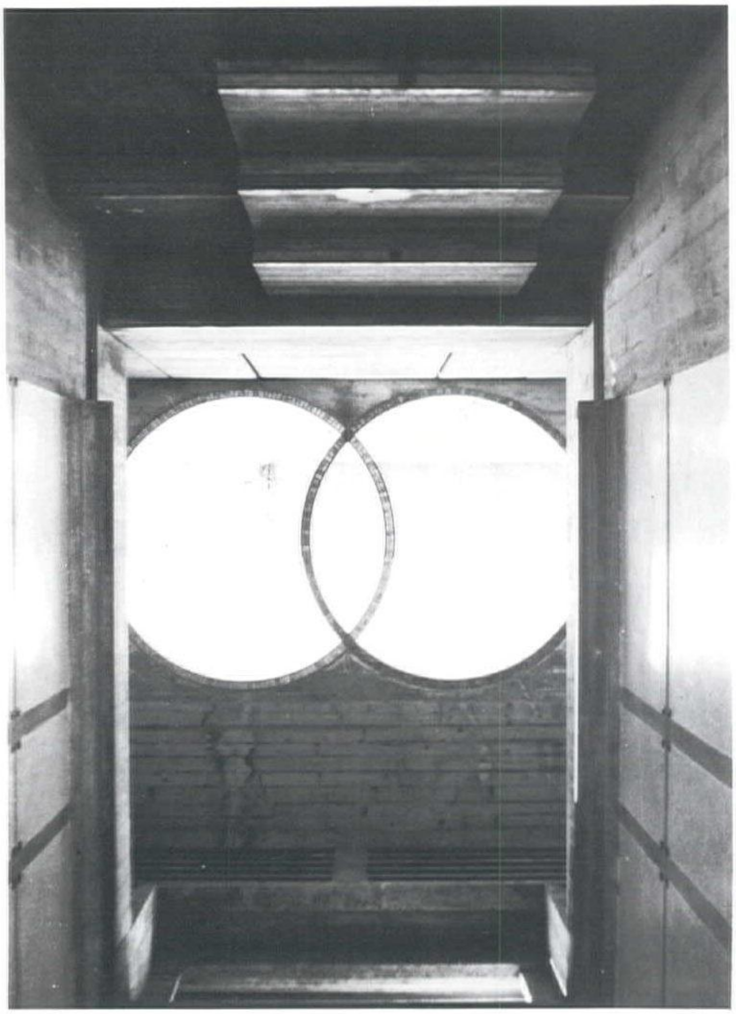

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The suggestion is of a window and the scale is of a door. In reality, the opening is neither a window, because it faces onto an unstructured field of grass, nor a door, since the actual entry is either to the right or to the left of the aperture. As a mathematical symbol, infinity, it has a front and a back by being defined within the plane of the wall. On the vestibule side, pink glass tiles in the left ring intersect with blue tiles in the right ring; on the other side, the pink tiles remain on the left and the blue on the right, thereby the right-left relationship is maintained allowing each ring at the same time to contain both colors.

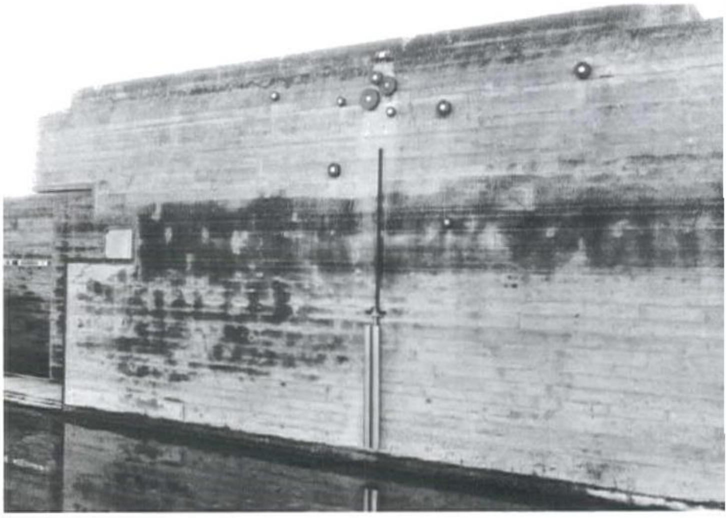
The image of the intersecting rings is not new in the Brion Cemetery. It was already used in the Gavina Shop in Bologna, (1961–63), as the main element in the façade. We see it again in the Banca Popolare in Verona as a brass detail in the steel work. Geometric constructions such as the two intersecting rings, although initially a product of intuition, are not left by Scarpa to be improvised or randomly used. Only after the symbol had been used in the Brion Cemetery, visitors began to become aware that a traditional wedding ring such as those worn by peasants in the countryside of the Veneto region can actually be separated into two halves if abruptly dropped on a marble table. Years later, Scarpa found a geometric construction attributed to Borromini that explains the intrinsic relationship of the elliptical plan of an unbuilt church (figure 37). It is surprising how the same figure can assume meanings so diverse, conceptually unrelated, but nevertheless totally consonant in their context. When asked by Walter Rossetto, Scarpa's youngest collaborator of his last days, if the two intersecting rings had any speci meaning to him, Scarpa replied enigmatically: "It is a leit-motiv of my life."[29]

If we choose the path to the right upon facing the two rings, we are stopped by heavy glass door which must be pushed down until it completely disappears beneath the floor level. The door is actuall submerged in a subterranean chamber placed in the path of the water which feeds the pool. One's entire body must participate in the effort necessary to lower the door. At that moment, an extraordinary suggestion is expressed,

> The body is collected in tension to gain way by overcoming a diaphragm, that is, the dynamic imag of a penetration, of a reverse childbirth, where the body takes a fetal position, aspiring to re-enter the mother's womb. The pool which contains the pavillion is therefore a motherly place, and the pavillion a place of fetal floating.[30]

The submerging of the glass door yields a sound produced by a steel cable held taut in a constellation of pulleys (figure 38). The sound is amplified by the hallway itself, a thin concrete box open at both ends.

> It is the sound of a counterrevolution of celestial spheres, put in motion by a desire moving in the opp site direction to their natural order; it is an upsidedown wail, it is the solemn and deep sound of the Om which preceeds meditation.[31]



38
Cimitero Brion; detail of the counterweights for the lowering of a glass door.

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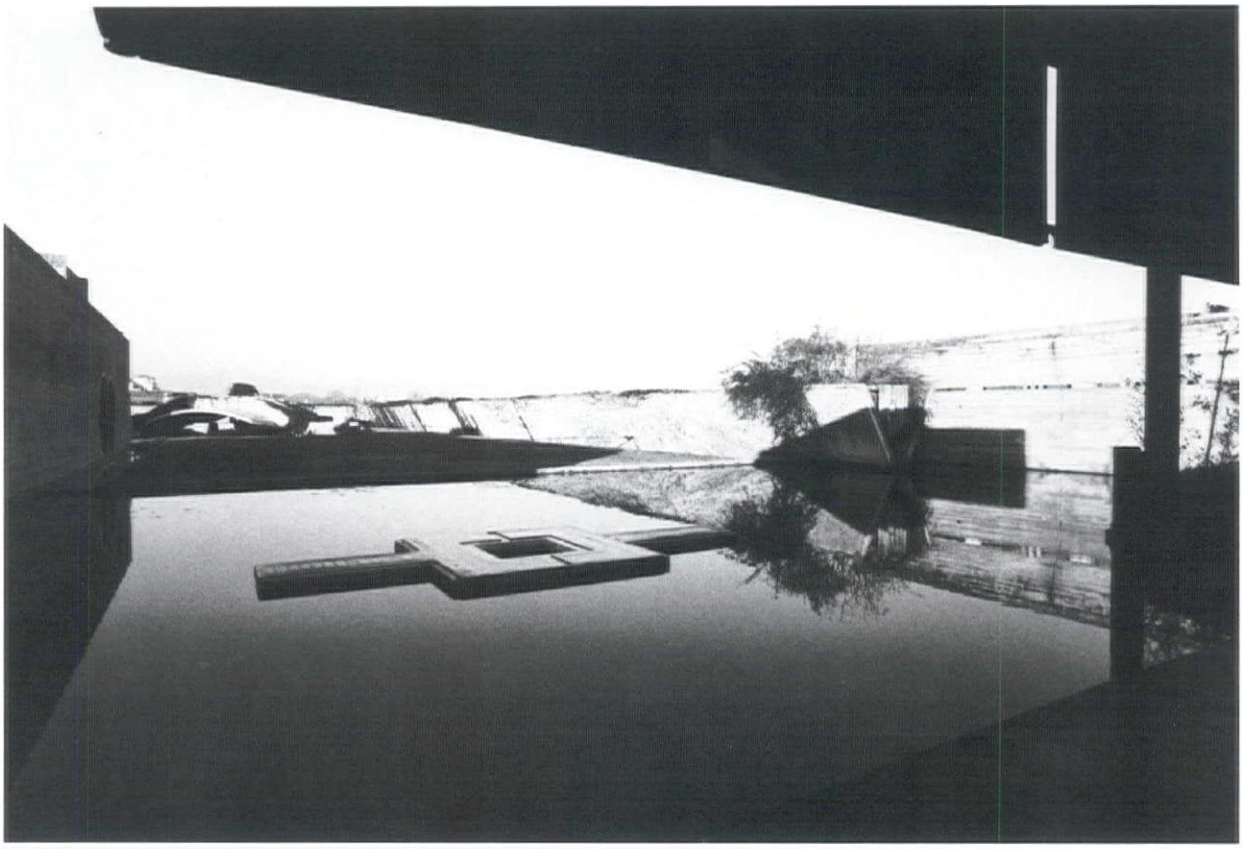
[29] From a December 1981 interview with Walter Rossetto, Architect, who was a former student and collaborator with Scarpa on the Banca Popolare di Verona project.

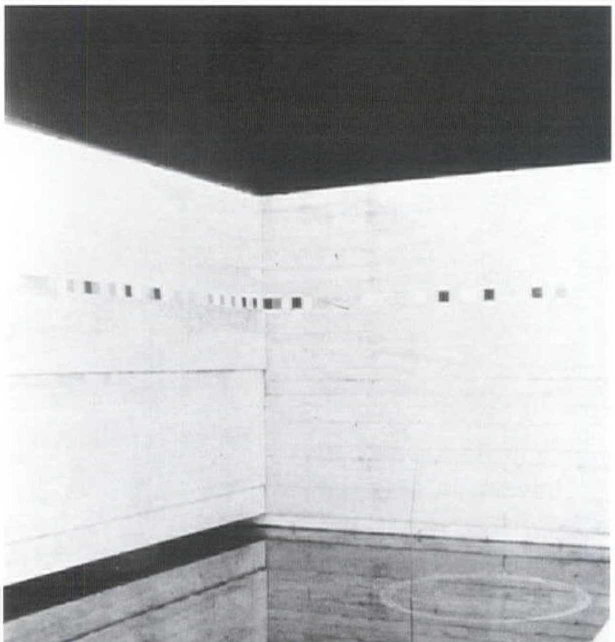
[30] Pavan, interview.

[31] Pavan, interview.

40
Cimitero Brion; view of the main tomb from the pavilion.



39
Cimitero Brion; view of the pool from the pavilion.

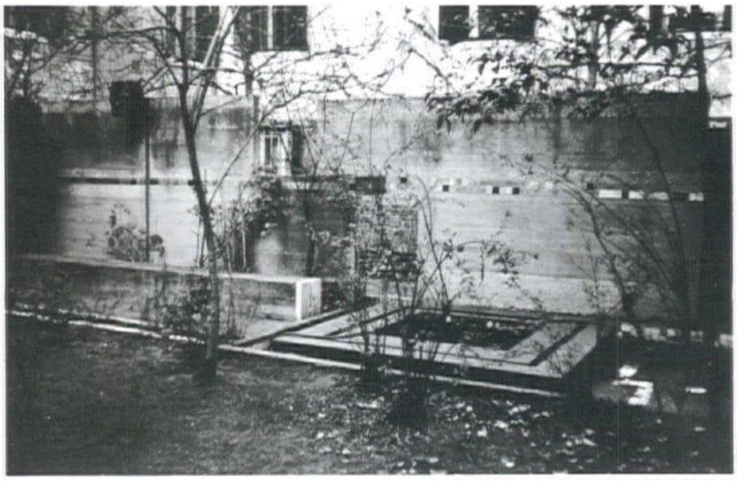


The pavillion protects the act of withdrawing to meditate where a person is in search of his natural origin, as the source of truth. If one stands in an erect position, the horizon is totally excluded thus concentrating one's attention to the pool and to all the objects immersed at different depths, which clearly reveal the existence of two separate worlds, above and below the plane of the water. In a sitting position, the natural horizon returns together with a second artificial horizon behind one's shoulders, formed by innumerable glass tiles of white, black, gold, silver and colored shades cast in the concrete, ". . . a horizontal plot of an internal story (figures 39–41)."[32] The water in the pool originates from a silent spring near the tomb of the couple.

> From the place of death is born the river which ascends upstream the current of vital time and feeds the lake which protects the enigma of birth.[33]

Scarpa was defined by Sergio Los, one of his longtime teaching assistants, as *architetto-poeta*. Los maintains that a linguistic interpretation of architecture allows a distinction between poetry and prose, and if many works of Rationalism belong to prose, Scarpa's expression is characterized by poetry. Poetry is here intended as an accent placed on the message itself, since the architecture of Carlo Scarpa is concentrated on language. By making a space habitable, Scarpa brings to architectural consciousness an original and irreproducable behavior.

> Poetry is what really lets us dwell. But through what do we attain to a dwelling place? Through building. Poetic creation, which lets us dwell, is a kind of building.[34]



41
Palazzo Querini Stampalia;
detail of the garden.

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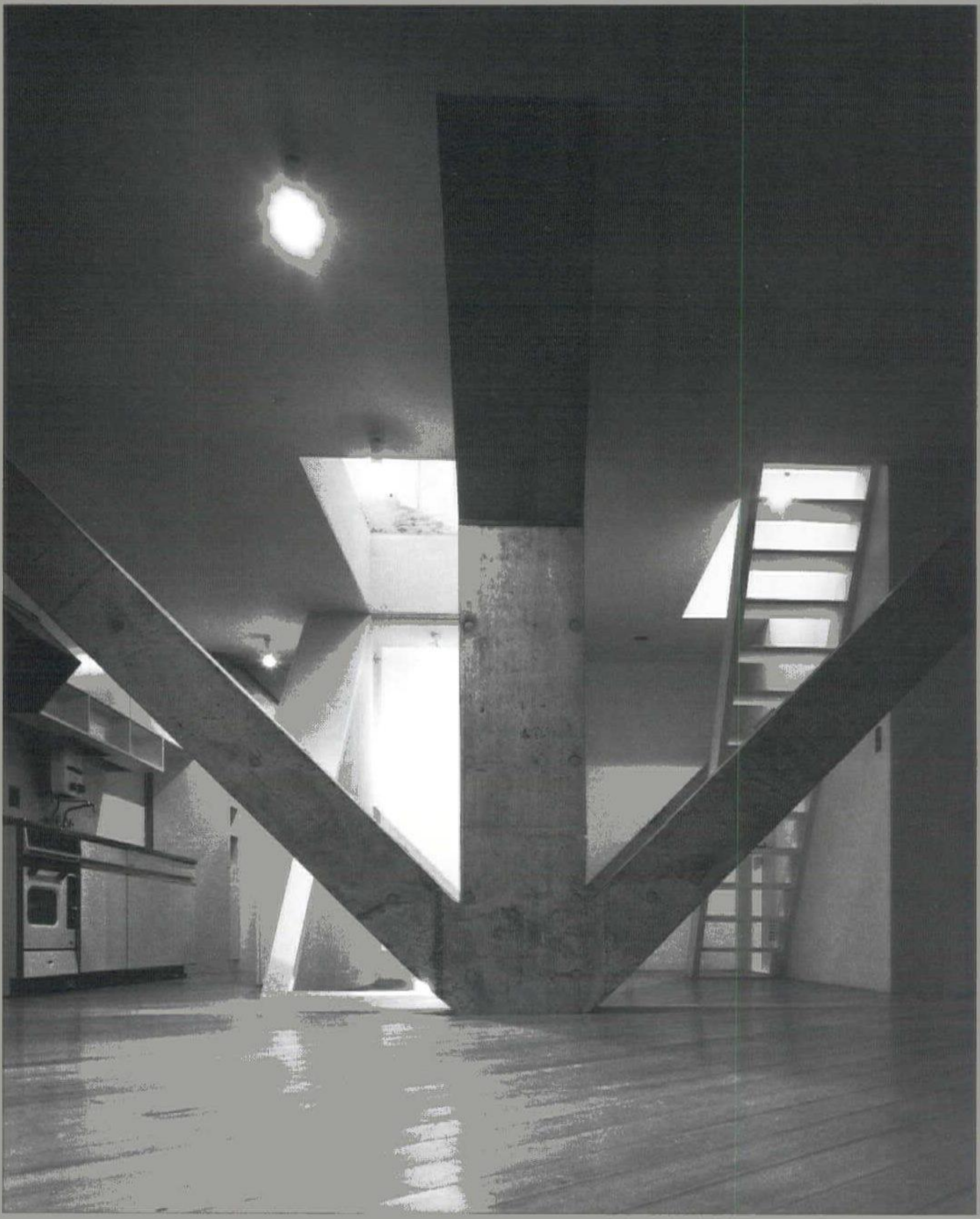
[33] **Pavan, interview.**

[32] **Pavan, interview.**

[34] **Martin Heidegger, *Poetry, Language, Thought* (New York: Harper and Row, 1975), p. 215.**

Oppositions: The Intrinsic Structure of Kazuo Shinohara's Work



louse in Uehara, interior

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Introduction by Kazuo Shinohara

Towards the "zero-degree machine"

My recent interests have been centered on the idea of a zero-degree machine.[1] The term zero-degree in itself has no meaning; it has significance only in relation to what I call a "hot state." In the type of symbolic space which is representative of the traditional composition of Japanese architecture, a hot meaning cultivated from the long process of history is condensed. From the beginning of my career through the conclusion of my so-called first phase, I had been dealing with space which bears this hot meaning. At that point I turned toward efforts to create an "anti-space"[2] in opposition to the type of space which carries this hot meaning. During the period of this second phase, the cube was my basic framework for design. I frequently employed the adjectives inorganic, or neutral to elaborate this new mode of expression.[3] My focus then was gradually shifting towards a cold space.

Some time later I realised that my concept and method were moving into a third phase. I introduced totally disparate notions such as nakedness, machine, and savagery at various stages in the development and metamorphosis of my space, and zero-degree-machine is the term which best describes the present stage of this evolution.[4] The shifts in my style of expression could be analogous to the phenomenon of morphological discontinuity known in biology as catastrophe: a sudden and rapid rupture of continuity in an organic process.

Ambivalence in evolution

A nation's tradition is an accumulation of the tangible realities in the everyday lives of its people. It was in response to the concreteness of these realities that I chose tradition as the starting point of my architecture. The fact that my works were then exclusively limited to residential design had a particularly significant effect upon this choice. During my first phase, while I continued to feel affinity with traditional Japanese space, I was determined to extract its syntax logically. Syntax is itself one form of abstraction. I intended to discover, in the operation of the mind and its mode, the underlying characteristics of such everyday, concrete elements of composition as shoji, tatami, posts and beams, and distinctive roof shapes—all of which are said to be essential characteristics of Japanese architectural space. For instance, I educed some elemental concepts such as the dividing-composition of the plan, and the frontality of the elevation, along with the characteristics of the schemata deduced from these concepts.[5] These concepts and schemata became potent themes and methods for my space composition. The further the investigation went into the nature of concrete objects, the more clearly could apprehend the underlying abstract structure. The development or evolution of my space was built upon this ambivalent structure.

Upon identifying these two concepts—dividing-composition and frontality—as basic features of traditional Japanese architecture (these concepts are applicable not only to architecture but to other formative arts as well), I sensed the existence of their converse concepts: the connecting method of composition and three-dimensionality. At that time I also became aware that these converse concepts, or methods, are those which are essentially characteristic of the traditiona composition of Western architecture. I worked with these pairs of phenomena in establishing the position and direction of my new themes. I recognized that these themes could adhere neither to Japanese tradition nor to that of Western culture.

Cube and machine

The cube, as one of the frameworks for expression in the modern architecture of the 1920s, had a direct analogy with the concept of machine. The cubic architecture constructed by assembling and combining industry-fabricated components had a close natural affinity with the imagery of the machine. In form, in function, and in their interrelationship, the analogy of the machine seems to have been quite effective in the creation of fresh images c new architecture.

My cube was not analogous to the machine. The cube became a main framework for expression during my second phase, which began around the end of th 1960s. The origin of this form and its concept could be traced to the space composition of the House in White of 1966, designed when I was most deeply attached to the tradition of Japanese architecture. Some years later, when I decided to shift to anti-Japanese space, I constructed this framework for my new expression by abstracting the form of the

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1
Kazuo Shinohara, "Towards Architecture," *The Japan Architect*, September 1981, p. 35.

5
Kazuo Shinohara, "Beyond Symbol Space," *The Japan Architect*, April 1971.

2
Kazuo Shinohara, "When Naked Space is Traversed," *The Japan Architect*, February 1976, p. 66.

3
Kazuo Shinohara, "Now and Function," *Space Design*, January 1979, p. 12.

4
Shinohara, "Now and Function", pp. 6-13.

House in White. Another compositional framework, the fissure, which became a dominant plan characteristic, emerged from a similar process of abstracting form from earlier projects.[6]

My second phase, the architecture of the cube, was a framework for expressing an inorganic, neutral, or dry meaning. My cubic architecture was intended as anti-space – in contrast with the former works which corresponded so intimately with tradition – rather than as a direct analogy with the machine. There was no need for that kind of analogy which well explains the character of my second phase, or cube period.

Naked objects

"Posts, walls, braces; all of these express no more than their functions. The resulting space which is made up of these elements does not convey any predetermined or prescribed intents."[7] This is what I wrote about my expectations in the design of the Tanikawa Residence in 1974. After having completed the development of my series of anti-spaces, I once again employed a traditional roof style and composition of posts and beams, in the Tanikawa Residence, this time intending to demonstrate the difference between this new style and the structure of the meanings included in the vocabulary of my first phase. (During my second phase I had designed another wooden structure, the Prism House, but this house was in all respects quite far removed from traditional Japanese style.) Its components are fragmented objects conveying neutral and inorganic meaning, which are not assembled to constitute a unified concept of space. Upon entering this structure formed from naked objects, the observer can freely read from it diverse and infinite meanings.[8] Such a structure could be regarded as an apparatus for production of meaning. This structure, therefore, can be thought of as a machine. With the disappearance of my unconscious inclinations toward unity or symbolism – both of which were reminiscent of my cubic phase – my machine concept came into being.

This machine exists in a different context from that of the machine in the twenties. I introduced this theme at the beginning of the seventies when the general current of Japanese architecture was retreating from an optimistic belief in technology and turning towards the art of meaningful space. In the previous decade, when this faith in omnipotent technology was becoming prevalent in the Japanese architectural scene, I manifested the opposing idea that the house is "art."[9] I likewise proposed the machine as a criticism of the mainstream of the seventies as well as an homage to the brilliant spirit of the protagonists of the twenties in Europe.

Anarchy as prototype

A line of buildings of the most advanced technology and style is intermittently interrupted by old-fashioned buildings. Such abrupt gaps in continuity are characteristic of the streets of New York City. Buildings decorated with ornamentation from proximate historical periods, and the elegant and somehow soft surfaces of masonry characterize the streets of Paris. In Tokyo, which has a character resembling neither of these cities, the streets are filled with a chaos of forms and colors. In the typical townscape of Tokyo's commercial quarters, which could not be described as anything other than chaotic, I find a liveliness which I appreciate. What I appreciate is not the townscape itself but the structure of the chaos which generates the liveliness. I substitute anarchy for chaos to suggest a progressive concept; Tokyo's anarchy is a prototype of the contemporary metropolis, representing an energetic chaos whch most modern cities will sooner or later encounter.

I defined my machine as an assemblage of fragmented components deprived of their customary implications, and as an apparatus constructed without any intention of realizing a unified concept. I am deeply interested in anarchy because of its similarity to my definition of the machine. The liveliness that I described indicates the existence of freedom as a prerequisite for a city and for its reading. If such an anarchic city were consciously planned and built somewhere, it could well be regarded as an apparatus representative of a mega-scaled space machine.

It is because I believe I can give more freedom to my space by examining the capacity of this conceptual apparatus, as defined in the realms of both architecture and urbanism, that the zero-degree machine persistently attracts my concern at present.
Kazuo Shinohara

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inohara, "Beyond Symbol Space", p. 87.

zuo Shinohara, "A Theory of Residential chitecture," *The Japan Architect*, tober 1967.

inohara, "When Naked Space is Traversed".

zuo Shinohara, *Shinkenchiko*, March 1975.

Preface

It is difficult indeed to judge accurately the circumstances of contemporary architecture as a whole, but among the many possible approaches toward an analysis we can outline one perspective by tracing the locus of an architect who has been producing his own very personal works without pause. This was my expectation while considering the whole range of Kazuo Shinohara's work, even though my aim is to concentrate on an analysis of the intrinsic structure in the works autonomously developed by Shinohara.

Kazuo Shinohara, who in the early 1960s made the statement that "Houses are Art," is an architect who has been asserting the crucial function of individual creation, while remaining aware of the fact that architecture (or, in a wider sense, the Arts) is a socio-cultural phenomenon. The intrinsic structure of a work is the structure of expression composed by the intrinsic architectural language. In Shinohara's case it must be described as an artistic structure, the function of which is to provoke people to discover unexpected meanings.

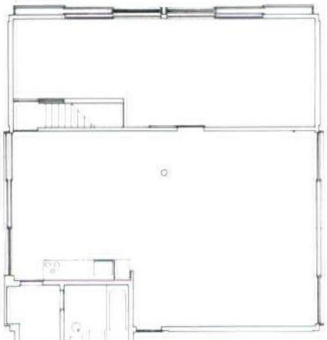
At first, Shinohara's recent works appear very much changed from those of his early period. There are always two different qualities discernible in the works of an architect: one is variable, and the other invariable. Of the two, what impresses me most strongly in Shinohara's work is its predominantly invariable character. Generally, what is judged to be invariable should be read by the viewer from the form of the works through the various periods, but it is not always consciously or intentionally expressed by the artist; some aspects which go unnoticed by the artist, produce deep impressions in the viewer.

It is my opinion that the key to a fundamental understanding of Shinohara's work is to be found in the beautiful houses of his first period related to tradition, which is highlighted by his House in White of 1966. As we proceed in the analysis we will find in the development of later works the presence of concepts and elements from this period of traditional expression.

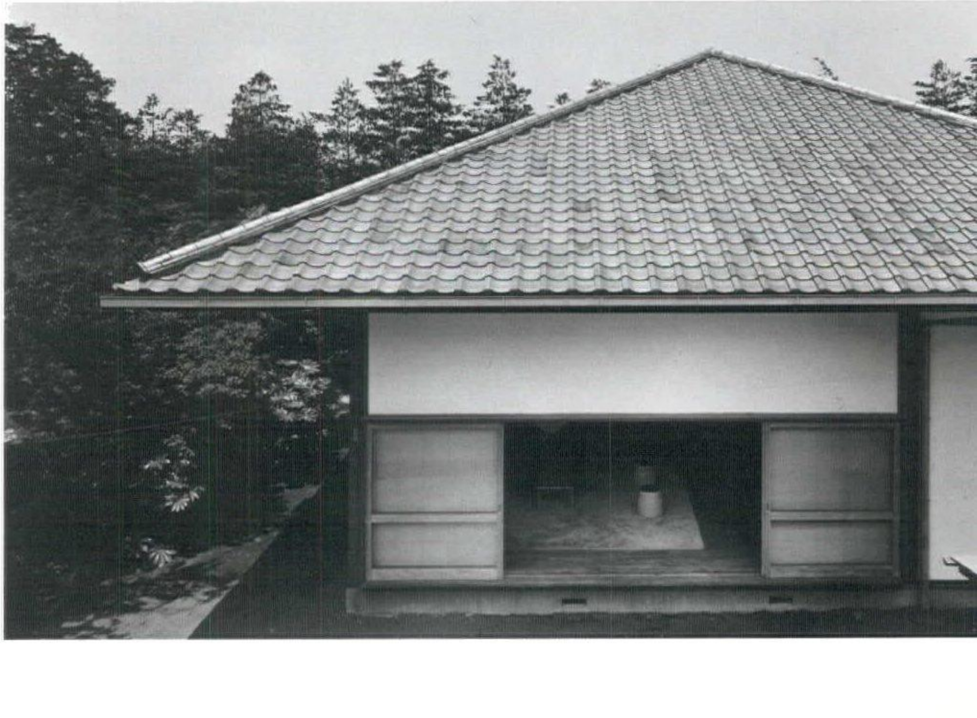
'Opposition' as a basic structure

From Division to Opposition

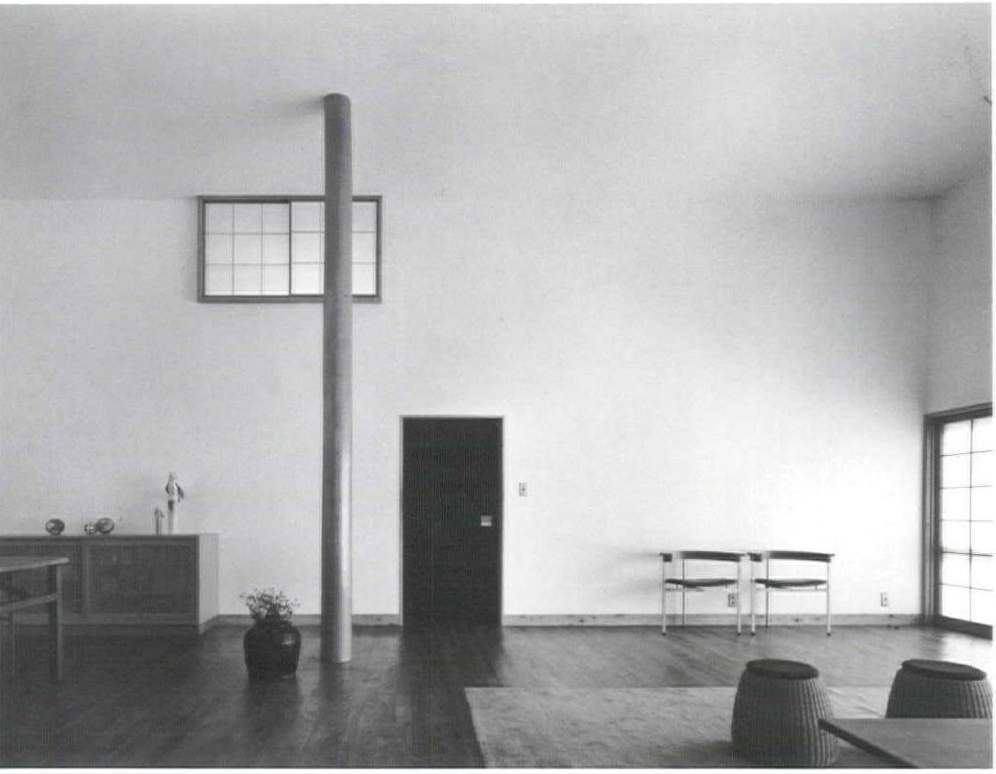
The originality of Shinohara's early works emerges in his relatively small independent houses, each with more than half of its volume occupied by a single large space. We can appreciate this style of "large space" at its most beautiful in the House in White. This house has generally been explained in the context of Japanes tradition. In fact, in that space we find the sublimation of a style refined through the tradition of an old culture in characteristics not to be found in Western architecture, such as ethereality, linear abstractness, simplicity and the particularly Japanese quality of frontality perceivable from within the room. However, think that for Shinohara the large space i



a
House in White, 1966, plan.



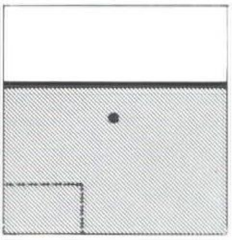
b
House in White, exterior view.



c
House in White, interior view of "large space".

a concept which developed outside of tradition, entering the realm of religious rather than domestic space.

In his search for a large space Shinohara was to discover a new kind of symbolic space reacting to the waning total self, which can be restored only through feelings, the unconscious mind, and the physical self; considerations which are excluded and regarded as anti-rational in modern architecture. I think it is appropriate to say that all of his works were developed following directions suggested by this fundamental problem. This large space was a message from the architect to his contemporaries conveyed through the form of space.



1
House in White, schematic plan.

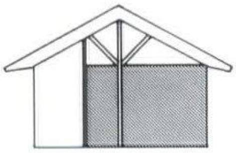
It is well known that during this search for a large space Shinohara had chosen to use the concept of division which he has extracted from the method of composition inherent in traditional architecture; the plan in Japanese traditional architecture is not the result of the connection of independent units, but of the division of the plan by many straight lines. Each unit resulting from this division has an ephemeral life, in that it disappears as soon as the sliding partitions, which embody the division, are removed. Shinohara regarded the compositional method of Western architecture as one which was embodied in the concept of connection, in contrast to Japanese division. Throughout this early phase Shinohara was talking about Japanese traditional space as void. This voidness is a characteristic present in the whole of Japanese culture; a characteristic which we, as Japanese, cannot fail to recognize, no matter whether we confirm or deny its significance.

It is natural that Shinohara, who was in love with traditional architecture, would intuitively grasp the geometric abstractness latent in division and conclude that he would perhaps be able to create a new kind of space using the concept of division positively, transcending the traditional meaning of voidness. However, the large space was more than just the result of division. To clarify this point I will analyze the method of composition in the House in White. Let me begin with an analysis of the plan, which is one of the simplest plans that could be imagined for a house; an abstract composition resulting from the division of a square by a single straight line (figure 1).

In the houses preceding the House in White, even in those with many rooms, the method of composition used was not that of connection but of division of the whole. But in these houses there already existed the origins of a space which would become the center. As for the possible association of division with simplicity, it must be said that, just as connection does not always lead to complexity, neither does division necessarily lead to simplicity. That Shinohara considered division a method directed toward simplification was in fact a product of his aesthetic consciousness. The development of the concept of large space brought changes to the concept of division. In the House in White we find this method of division used to its limits to achieve simplicity in the large space. The strong opposition that can be perceived between this large space and the other parts of the house, as indicated in the plan, can be understood as evidence of a conceptual change from simple division into opposition.

"Shell" and intersecting "plane"

When the House in White was designed, the concept of opposition was not yet a main theme in Shinohara's work. The theme of opposition was hidden behind the theme of the large space; this is more apparent in the section than in the plan. The structure of the House in White con-



2
House in White, schematic section.

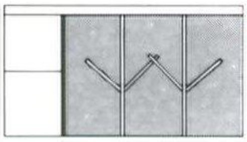
sists of a system of trusses forming a pyramidal roof; a strongly centralized frame supported by a single column with four diagonal braces supporting the four beams ascending to the center. The interior volume thus framed is divided by an off-center wall (vertical plane) and a ceiling (horizontal plane) defining a box-shaped volume which becomes the large space. The central column, located as it is – closer to the interior wall – does not appear to be central to the architectural whole. These wall and column elements are manipulated to create the important character of frontality in the room, and from this kind of fiction (in regard to apparent non-centrality) arises the symbolism of the large space (figure 2).

Architectonically, the House in White is a simply constructed shell divided by a vertical wall plane independent from the structure. This is the compositional basis used to establish, in the architectural whole, the large space bearing the meaning. The relationship between the shell, and the plane intersecting it appears repeatedly in many of Shinohara's most important works, with intentional variations in the structural system or the shape and number of walls.

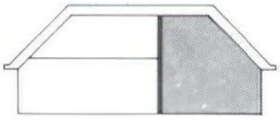
The Tanikawa Residence (1974), House in Ashitaka (1977) and House on a Curved Road (1978) are homologous to the House in White in that in each there is a shell which, traversed by a wall, defines a large space on one side and a sub-divided space to serve many functions on the other (figure 3). This does not mean that Shinohara's architecture had not changed through time, but it does point out one type of invariant which, being common to several works, appears in different forms while the architecture develops changing meanings. If we consider only the objective form, we can interpret it as the interplay between the structural (the shell) an the non-structural (the partition wall). When I use the term invariant I am referring to the abstract relationship of oppos tion which is common to the intrinsic structure in many works. This opposition in the composition of multiple elements in Shinohara's works is not a static relationship but a dynamic one. I will later explain how this opposition becomes the center of a "meaning producing machine." Some expressions peculiar to Shinohara like savagery and machine cannot be understood without considering their relation to this concept of opposition.

The symbolic meaning in opposition
Appearing in a period in which residentia architecture had largely lost what Jan Mukařovský called the aesthetic function (the function of "provoking" culture),[1] the introduction of the large space in Shinohara's House in White brought this function to life again and called it to people's attention. He accomplished this through the reversal of the duality everyday/non-everyday, focusing on the non-everyday aspects which are beyond functionalism. Although this change in the relation was a dangerous adventure it did not mean the destruction of architectural form: it was the re-organization of architectural thought through artistic thought.

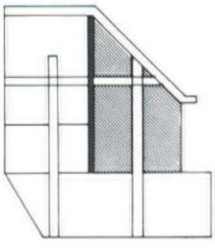
It is difficult to explain the strong feeling I get each time I see a work of Shinohara's, when I recognize the manifestation of an unconscious impulse of its author. This is the kind of impulse which makes a perso build a tower on the earth's surface, an



Tanikawa Residence

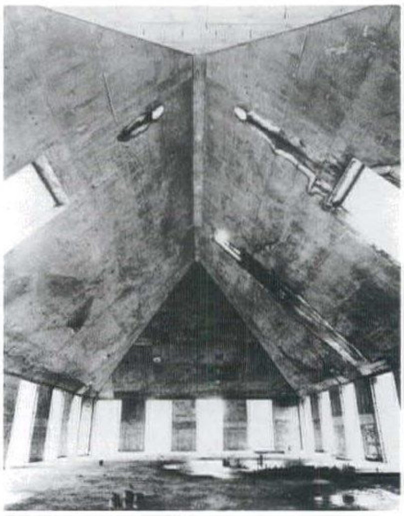


House in Ashitaka



House on a Curved Road

3
Schematic sections of three houses.



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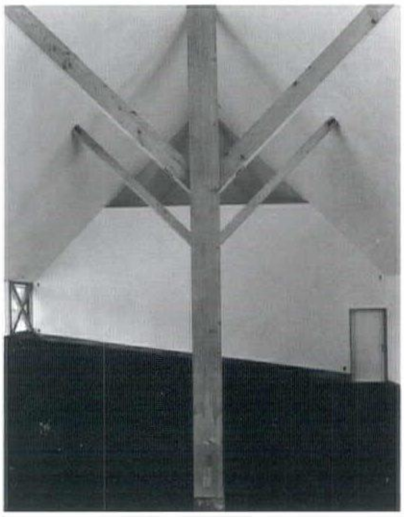

e

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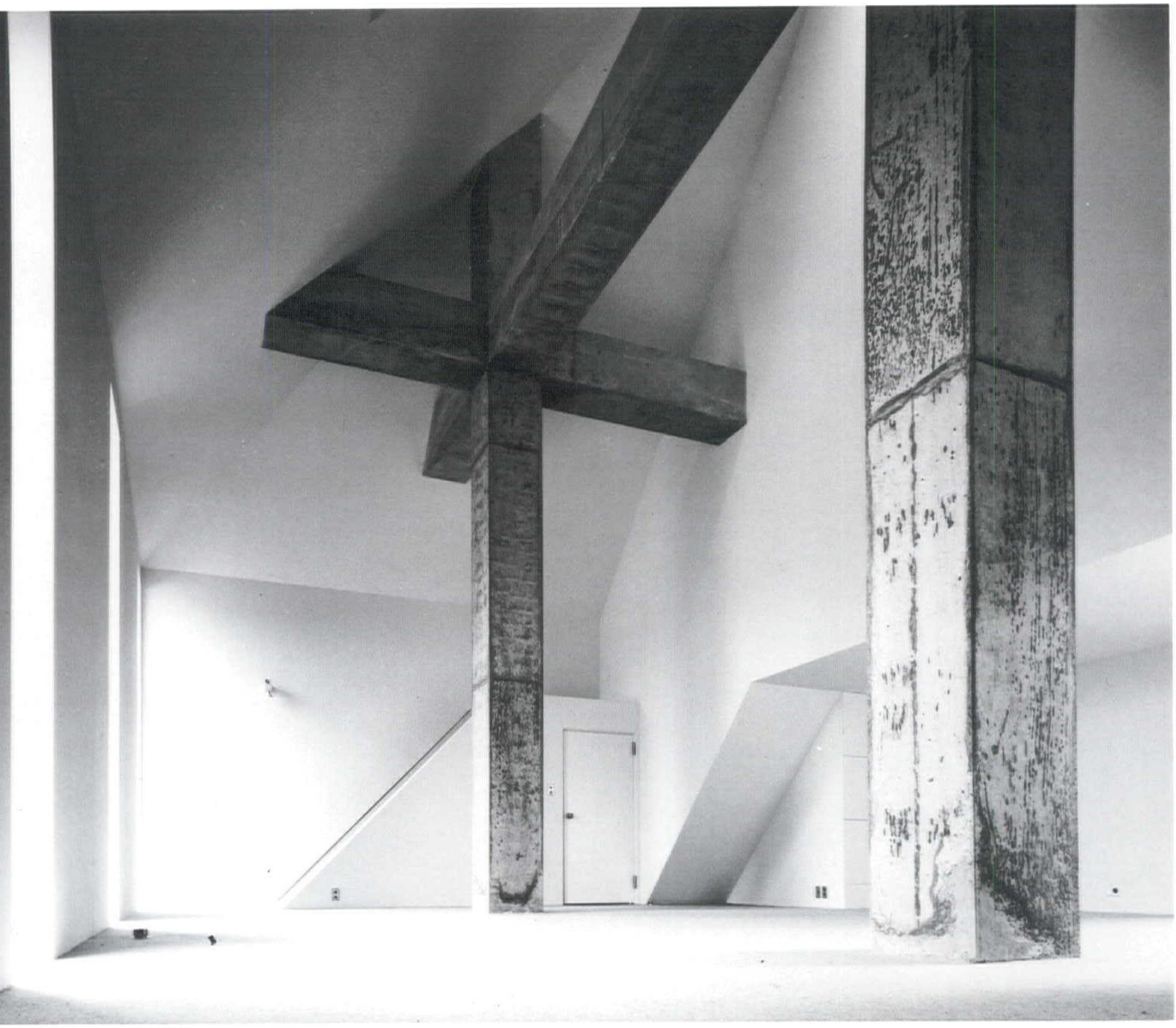
[1] **Jan Mukařovský, *Structure, Sign and Function* (New Haven: Yale University Press, 1978).**



ouse on a Curved Road, 1978,
terior view.

ouse in Ashitaka, 1977,
terior during construction.

anikawa Residence, 1974,
nterior view of the "large
pace" with earth floor.

impulse which can be read as an ascension impulse generated by the spatial relation created between the tower and the ground. We generally call this interpretation of form symbolism. In this symbolism the relation of opposition plays one of the fundamental roles; as in the previous metaphor with the tower, the ascending movement gives birth to the relation between the tower and the earth's surface. The opposition sensed in the relation between the tower and the earth results from a basic human impulse; through this opposition we can feel the ritual re-creation of the world symbolically. The opposition which I feel in Shinohara's sophisticated and rather ascetic expression results from the impulse concealed in the forms which he creates, and thus, through this opposition a symbol can be read in a simple plan.

Certainly the distinguished research by Mircea Eliade[2] on religious symbolism made it clear that in traditional society, not only in sacred architecture but also in the profane, "to build" means to recreate the universe, and that houses are "imago mundi." The problem, as C. G. Jung points out, is that we have enough knowledge of symbols but we do not "live" them.[3] When Shinohara stated that he tried to make people discover something through his large space he was referring to the act of living the symbols. The main theme of the House in White, then, was the sacralization of the dwelling. In contrast to this, some contemporary trends in architecture–creation through the recycling of iconographies from anthropology and ethnology–seem ineffective, no matter how charming images like those of a mandala or anthropomorphic forms might be. Man cannot preserve the eternal theme of this symbolism except through the contemporary forms of expression corresponding to each era.

Interdependence between interior and exterior: The Uncompleted House

The Reversal of Space

The Uncompleted House (1970) is commonly known as the first reinforced concrete work marking Shinohara's departure from tradition. Completely new aspects appear in the plan and the interior composition. While the intersection of the shell by the plane in the House in White was nothing but a compositional method without any special meaning, the whole architecture of the Uncompleted House is traversed at its center by a space sandwiched between two planes. Here oppos tion becomes clearly apparent. These changes were not brought about by only one cause but by a complex relation of causes made up of impulse, manipulation and many other related factors. Shinohara strove to express completedness in making these large spaces. This completedness symbolizes the meaning of inner life in opposition to the outer world, and Shinohara regarded this opposition as the result of an aggressive stance against the outer world.

The outer world that Shinohara faced wa dominated by a critical situation which had developed in the whole of Japanese society from the end of the 1960s throug the beginning of the seventies. On the one hand, architects, favored by a prosperous situation, were able to talk freely and frequently about futurology. On the other hand, internal criticisms of the whole culture were developing as politic disputes, putting the whole society into an unusual state of tension. The opposition of Shinohara's work to the world wa related to this crisis. He recognized this situation through a very particular perspective of his own. A work of art is closely related to its author's intuition, conscious or unconscious, of the crisis o the period in which he is living.

In his work, the exterior invading the inte rior, creates a deeper interior, calling to the impulse in the inner man. The internalization of various external crises is on of the important factors which produced the Uncompleted House: at that momen the architectural form appeared as what Kenneth Burke called a "stylized solution to the external critical situation, a solutio which is beyond the simple expression o the crisis of the era in architectural terms Today, after 10 years' time, we are surprised when looking back to the architec ture of that period, that it is difficult to find works which, like Shinohara's, inscribed the socio-cultural crisis in architecture. But Shinohara never thought of giving expression to the crisis itself or di rectly committing himself to the situation The paradoxical truth is that the more au tonomous a work is, the more it become a product of its era.

As I have said before, the architectural concepts that Shinohara had originated were structured through the relation of opposition, and his inner impulses were projected into this conceptual structure

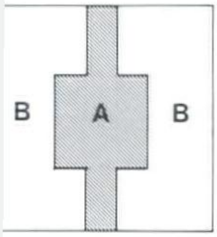
[2] Mircea Eliade, *The Sacred and the Profane* (New York: Harcourt Brace Jovanovich, 1959).

[3] Carl G. Jung, *Man and His Symbols* (New York: Doubleday, 1964).

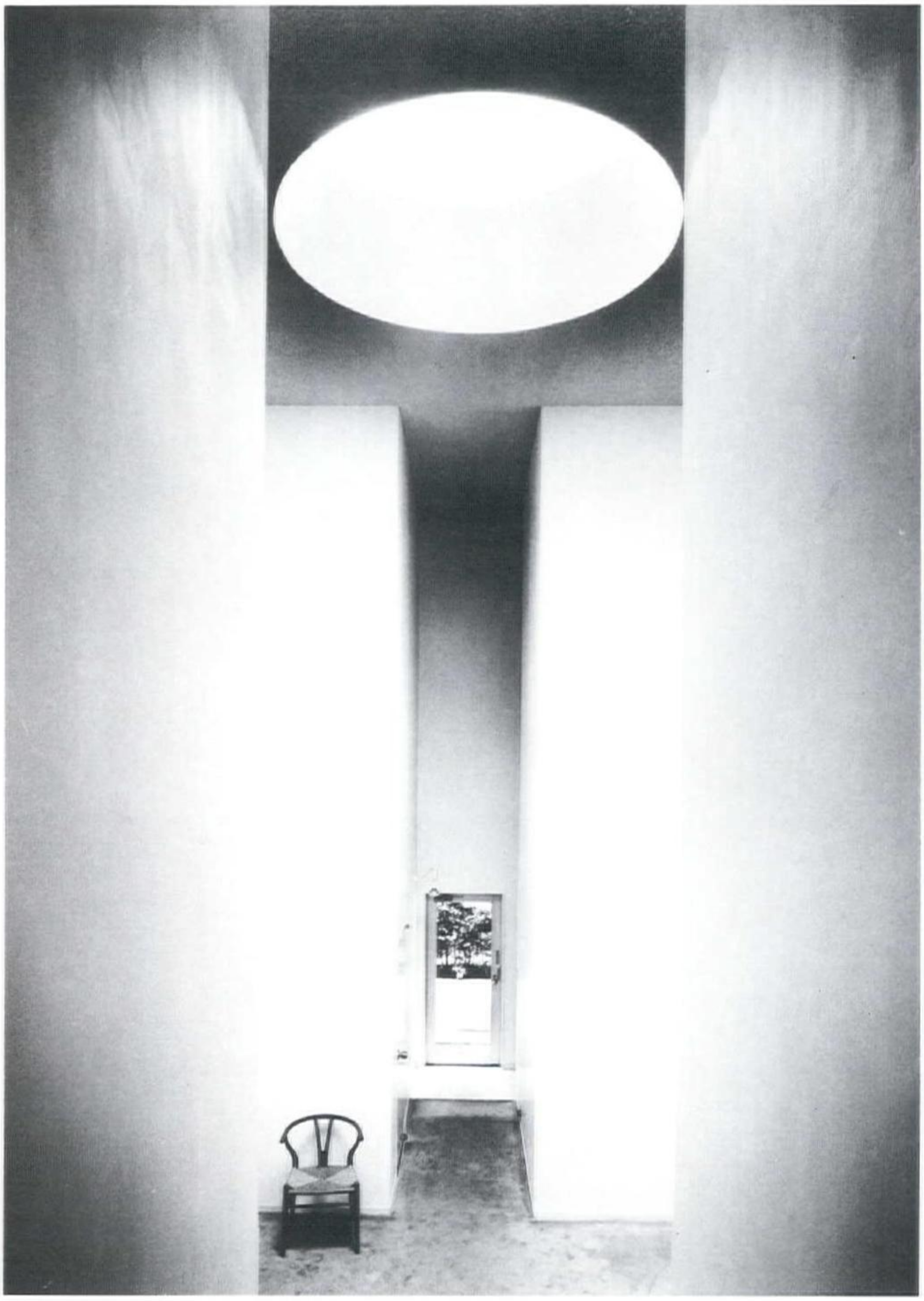
of opposition, manifested between the two kind of spaces: those functional spaces composing the whole house and the particular one traversing it in the Uncompleted House. We see a large square-shaped space being traversed at its center by a slit swollen into the shape of a smaller square; we can also think of this method as the division of a square resulting from two symmetrical staggered walls (figure 4).

Looking at figure 4 we find that the space A, enclosed by the two walls, has with the other parts B, on both sides, a reversal relation similar to that of the positive and negative in a photograph. The small space A in the center is sensed as a plugged-in space which is simultaneously in opposition with and yet inseparable from the rest (spaces B). The same type of spatial composition appears in the Shino Residence (1970), the Cubic Forest (1971), and again, although changed to some extent, in the Repeating Crevice (1971) (figure 5).

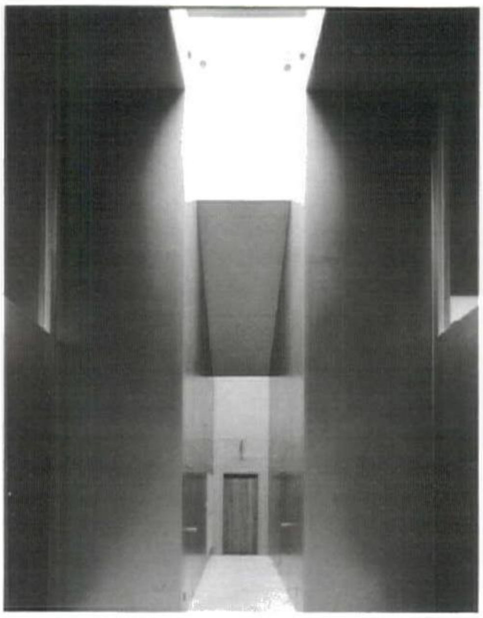
This kind of space is what Shinohara



e Uncompleted House,
hematic plan.



9
Uncompleted House, 1970,
interior view of space "A".

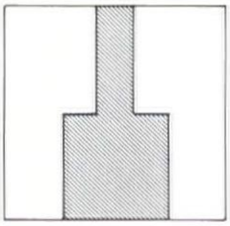


h
Shino Residence, 1970, interior.

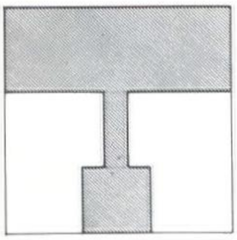
called a "fissure space." He explained that this fissure space concept in the Uncompleted House was the result of the topological manipulation of reversal in the design of the Yamashiro Residence (1967), after the House in White and before the Uncompleted House, in which the building surrounds a courtyard space. This concept of topological reversal provides a clue to the interpretation of the spatial composition of the Uncompleted House.

At the center of the Uncompleted House is a space with a square plan similar to the outline of the general plan. Standing at the center we feel as if we are again experiencing a solid, having already perceived the building as such from the exterior, but this time the mass is perceived as the exterior turned outside in. Consequently the relation between spaces A and B is not only one of opposition but also one in which the whole is turned inside out, creating a relation between the original interior B and the internalized exterior A. To bring the exterior into the interior and establish it as the architectural center would not have been possible without the geometric operation of topological reversal.

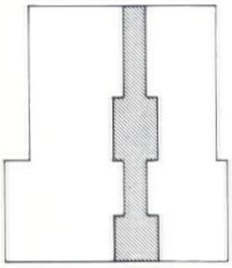
While the opposition mentioned in the preceding section is an invariable abstrac spatial relation brought about by the author's unconscious impulses, the reversa process points to the conscious operation giving birth to changes in the forms. In his works there are many other operations of this kind besides that of reversal. Establishing relationships between his works permits a better reading of the



Shino Residence

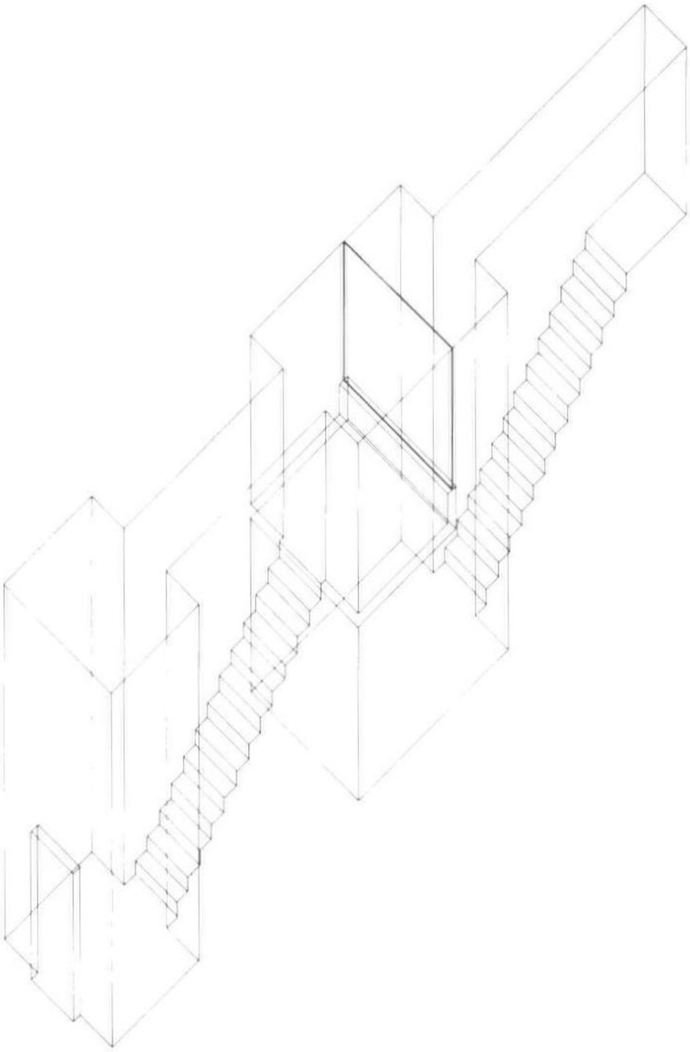


Cubic Forest

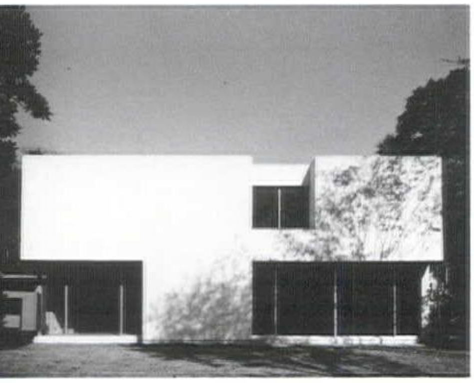


Repeating Crevice

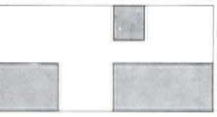
5
Schematic plans of houses containing "fissure space".



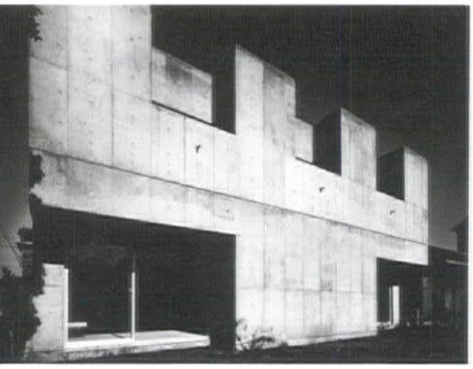
i
Repeating Crevice, 1971, oblique projection.



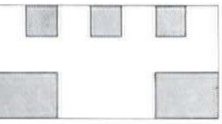
j
Cubic Forest, 1971, exterior.



ubic Forest



k
House in Kugahara, 1972, exterior.



chematic elevations of houses
eferred to as "cubic
rchitecture".

meanings which endlessly spring from the correlations between the works, all of which resulted from different operations.

This reversal operation resulting in the internalization of the exterior only becomes possible when a firmly fixed geometric form becomes the basis of the operation. Although the geometric abstractness of the perfect cube was not yet realized in the exterior of the Uncompleted House, at least the concept of geometric wholeness was already established. Thus it can be said that, what Shinohara called fissure space is something inseparable from the architecture of the cube.

Abstract and concrete space
The exterior form of the Uncompleted House was still ambiguous. Here the sloping roof reminds us of the exterior formal characteristics that appeared when Shinohara remained close to Japanese tradition, such as in the House in White. In order to compose the interior space in the Uncompleted House there was already present the necessary geometric exterior, even if at this stage it is only imaginary; this geometric exterior actually appears only in the plan. The plans of the Uncompleted House, the Shino Residence, and the Cubic Forest were all perfect squares. The selection of the square means that Shinohara was, at that time, feeling the necessity of clearly distinguishing his expressed things from the unarticulated world-at-large. His conscious intent was to find an architecture in which meaning is generated by the interdependence of the many components of his expressed things. The task of obtaining a key to the metaphors with which to read the world from the net of relations in this intrinsic structure is a task entrusted to the interpreter.

Although the square is potentially loaded with symbolic meanings, Shinohara chose it because of its complete and geometrically pure form. In the Cubic Forest the architectural exterior is actually contained within a cubic geometric solid. In this house the inclined roof and deep eaves of Japanese traditional architecture have disappeared completely. The geometry manifested in Shinohara's exterior form brought order into the limits of his clearly expressed things. The symbolized wholeness, completedness, and autonomy that we sense in his architecture are all characteristics of an artistic approach to architecture. This approach was the result of Shinohara's attempt to reinterpret this architectural prototype, the cube, through an artistic rather than a functionalist thought.

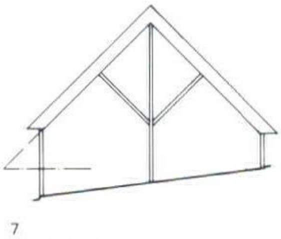
The exterior of not only the Cubic Forest, but also of the House in Kugahara (1972) and the House in Higashi-Tamagawa (1973), all indicate that the abstract, geometric space representing the whole closely coincides with the concrete architectural space, but that these entitites are not entirely identical. In any of these houses the cube is virtually an expression of the whole. The walls with openings are recessed from the walls at the perimeter of the abstract cube; the cube appears to have been cut away to separate the blank walls from those with openings. As a result the geometric space wrapping the whole and the deeply articulated concrete architecture itself can be perceived as separate. This becomes clear through a schematic drawing of the façades (figure 6). In each of these examples the perimeter wall and the walls with openings reject each other like the positive and negative in a photograph, filling up the rectangular frame.

The surface of the perimeter wall is a cutaway "gestalt." This gestalt, sometimes symmetrical and at other times asymmetrical, may elicit many associations. For example, it can look like the stylized design of a tree. The associations are free, but what is important is that this gestalt already suggests the abstractness of the geometric space in contrast to the concreteness of the architecture. Shinohara's cubic architecture, through its geometric abstract space, generates an architecture with concrete existence, completely released from traditional sensibility.

Meaning and experience
The square-plan center space of the Uncompleted House expresses a strong verticality. This space is further verticalized by the effect of light spilling down from the dome-shaped skylight. Protruding from one wall are the outlets for the air conditioning system, and on the upper part of both sides of the space are interior windows, making it possible to look down into the space from the upper level rooms. There is no real function assigned to this space. Shinohara has said that he decided on the paradoxical name "Uncompleted House" because it seemed to him that the central space itself expressed an important meaning beyond that of "house"; this meaning became clear to him just before everyday life entered this

space, before it actually became a house.

The center of the Uncompleted House is a cavern. When trying to interpret the architecture in terms of living functions, the central space appears to perform the role of mediating and unifying the parts containing the living functions, thus providing the means by which we are able to perceive the intrinsic structure of this house. Again, using the photographic analogy, the role of the central space is that of the negative bringing the positive into being. But, in the artistic meaning, the "negative" and the "positive" are complete reversals of each other, and thus, the central cavern begins its positive existence in its voidness. The ephemereality that Shinohara had sensed before in traditional Japanese architecture had at last disappeared from his own works, together with the use of traditional materials and elements. The Uncompleted House and the series of houses following it are, among Shinohara's works, the group which most seductively invite metaphorical interpretation. The Uncompleted House, Cubic Forest, and Repeating Crevice are already metaphorical names with subtly different meanings.



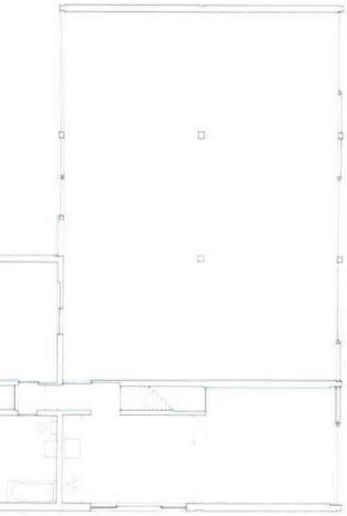
7
Tanikawa Residence, schematic section.

When a real architectural space is experienced as metaphorical space, the experience itself is not induced by the physical structure but by the poetic structure of space. In the House in White, the viewer is captured by the frontal wall and the column more than by anything else. This is an experience of gazing quietly, like the feeling that we have when sitting in a Japanese-style room in front of the tokonoma (decorative alcove); this is a kind of visual experience which is not to be found in the Uncompleted House. Looking inside from the entrance of the Uncompleted House we see the central space through a narrow slit which, once traversed, leaves us at the bottom of that tall space; the movement of one's own body brings about the dramatic appearance of this space. But this is not all: in a space endowed with such strong verticality, the height itself gives birth to meaning, but this height–in reference to the scale of the viewer's body–becomes transcendental and itself bears meaning. The visual coercion experienced in the House in White is no longer perceptible in the Uncompleted House.

Topos and architecture: The Tanikawa Residence

A new reading of the House in White
The Tanikawa Residence (1974) was Shinohara's new reading of the House in White, transformed through his experiments, up to that point, in his evolving sequence of architectural concepts and contexts. In this house Shinohara conceptually freed architecture from the symbolic meanings which had previously been so important in his works. The artist brought the House in White to a new context, and a completely new concept appeared in the Tanikawa Residence. Built on a gentle slope in the middle of a highland forest, the house has a simple barn-like shape with a large 45 degree pitched roof. Its most unique characteristic is that the earth is left exposed in the interior—it is important to note that the earth floor, in this context, is in no way related to the traditional Japanese folk house vocabulary, in the way that it is used in the House with an Earthen Floor (1963) and in the House of Earth (1966)–not only the naturally sloping topography of the site but the bare earth surface itself is exposed. The slope in this interior is one of the elements defining the character of the space I will explain more about this character later. In the space within the Tanikawa Residence, Shinohara brought to light, after almost eight years, the whole structure hidden above the main room of the House in White. The structural elements are exposed naked; the artistic fiction of the House in White has disappeared along with the traversing wall and ceiling (figure 7).

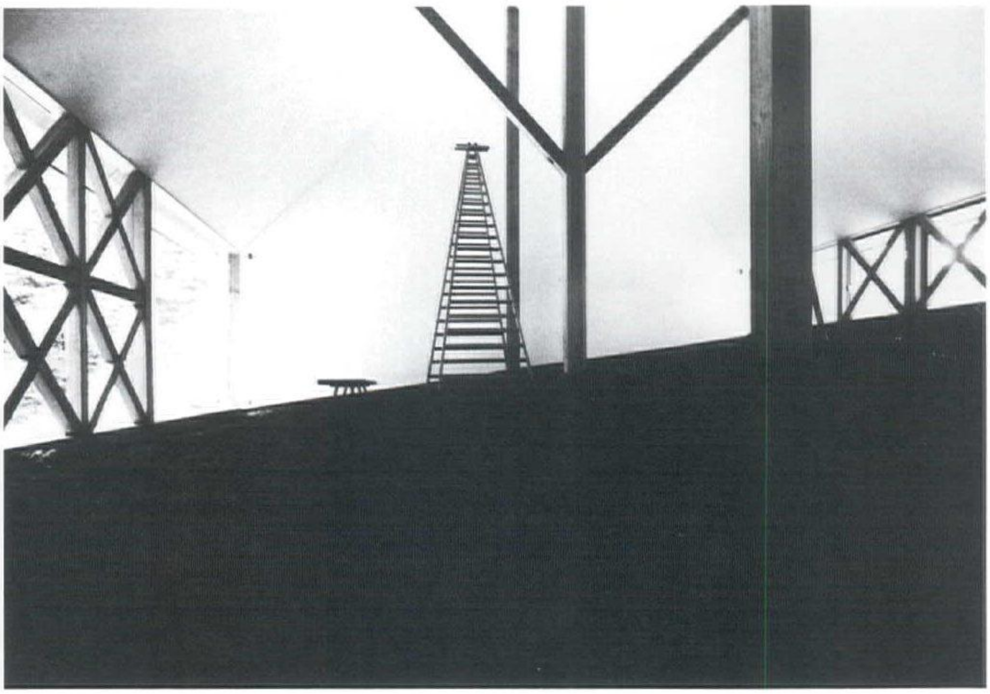
These naked structural elements, though obviously derived from the House in White, are here expressed much more concisely, consisting of individual posts from which spring braces supporting the roof plane. In the House in White the structure was endowed with latent meaning in its strong centrality; in the Tanikawa Residence, however, to eliminate this centrality, the roof was changed to a linear gabled roof. The gabled roof, as compared to the pyramidal roof, is relatively lacking in unity, wholeness, and completeness. Consequently there is no longer a column holding a central position, as was the case in the House in White. Here, instead of just a single braced column, there are several in a row (figures 3 and 7).

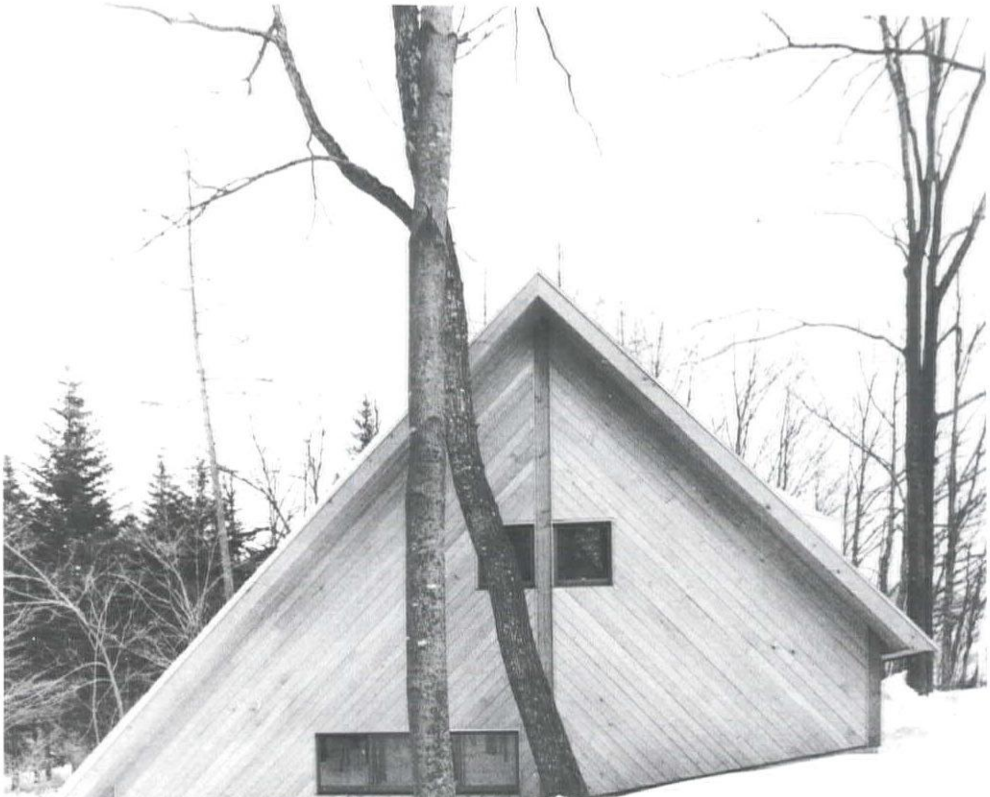


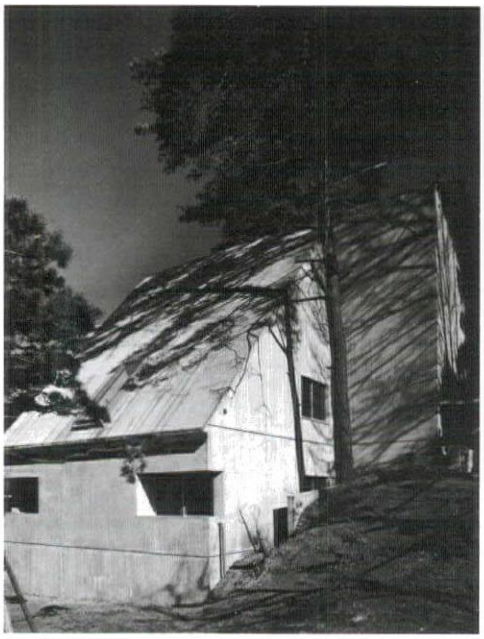
anikawa Residence, plan.

anikawa Residence, interior.

anikawa Residence, exterior.

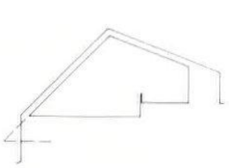






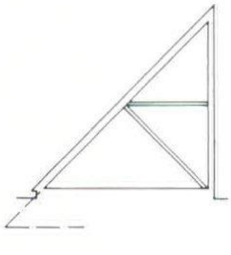
9
House in Seijo, 1973, exterior.

8
Schematic sections of houses with 45-degree roof pitch.



House in Seijo

Prism House



There is also an invariable quality in this transformation, and that is the relation between the shell and the plane by which the shell is divided. This is not only a repetition of the simple space division of the House in White but a stronger indication of the opposition, everyday/non-everyday (figure 3). In this house, too, the basic meaning is perceptible through this opposition. There are no longer any living functions to be found in the non-everyday space. The sloping floor appearing in this non-everyday space emphasizes the sacred quality.

Another new characteristic of the Tanikawa Residence is that the roof slope is set at a 45 degree angle, a much steeper slope than the roof of the House in White. Meeting at the ridge, the two 45 degree slopes result in a right angle. In the Prism House and the House in Seijo, preceding this house, the roofs each have one slope set at 45 degrees (figure 8), but it is only in the Tanikawa Residence that the fundamental geometric form of the right angle appears for the first time. Thus the right angle here is not poetry, as it was in Le Corbusier's vocabulary; instead, it was used to emphasize the value of geometry rather than that of emotion.

A remarkable design departure from the large space in the House in White is that the traversing wall no longer produces frontality. There is a sense of imbalance produced by the inclined plane in this space, but, just as a slope in a city street has both an ascending and descending meaning, what is significant here is the disappearance of any simple direction which completely controls the meaning in this non-everyday space. Thus here exists the fundamental requisite for the generation of multiple meanings.

The meaning of topos
The difference between a building situated on a flat surface and one built on a slope is that the latter must absorb the topography of the site within the building's shape. In dealing with this aspect, the architect is made more conscious of Nature, or at least is unconsciously influenced by the earth, or topos (the meaning of place).

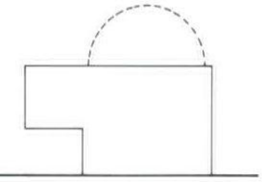
The House in Seijo (1973) preceding the Tanikawa Residence is also a large roofed structure situated on a slope. Under the roof there is a huge split-level one room space, beneath which is another level housing several different functions. In this case one slope of the roof has a 45 degre inclination while the other is much more gently sloped. Here, the 45 degree angle plane was not something consciously sought through geometry; it appears to have been set at that angle in direct response to the site slope. The 45 degree slope meets the floor directly, emphasizing their mutual relation; the vertical wall which normally mediates between roof and floor has disappeared. In the Tanikawa Residence this direct relation between the roof and floor is modified by a vertical glass wall, but the same impression of directness is maintained.

Concerning the floor in the House in Seijo, the site slope is absorbed by a horizontal floor split into two levels, a natural disposition for performance of everyday functions. In the Tanikawa Residence, because of the right-angled roof we do not feel as we do in the House in Seijo that the site slope is reflected in the roof shape. The roof and the topography are independent, leaving the earth's surface free to appear just as it is in the interior–free of preconceived meaning.

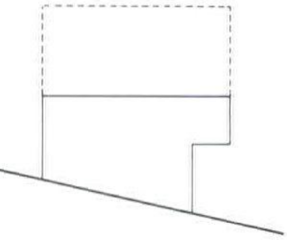
It could be said that Shinohara, in his thirst for naked things, was compelled by the expectation of discovering a new meaning from the resonant relation between these many exposed elements. Th deep black slope of earth under this large shelter can be interpreted in a variety of ways. In this design Shinohara came to think that meaning emerges through people's reading of architecture–meaning is not a property of architecture itself. It is from this concept of architecture as a *generator* of meaning that Shinohara's metaphor of the machine appeared.

I think that the untouched slope appearing before Shinohara at the site of the Tanikawa Residence must have appealed to a deep level of his unconscious mind. Architecture is always built in a given location, whether in the chaotic environment of the city or in the pristine environment of nature. Both environments have the potential to stimulate human emotions before any specific building design is conceived for the site. With a site in a natural environment, the topography and vegetation become matters for consideration. It is possible to guess that in the case of the Tanikawa Residence the inclined plane secluded in the forest tempted an unconscious impulse.

Considering that Shinohara's solution



ouse in Uehara



ouse in Hanayama No. 3

omparison of projecting
orms.

ouse in Uehara, interior
during construction.

was to introduce the slope just as it was inside the architecture, we cannot help being reminded of what Shinohara said years ago about introducing into architectural space an artificial nature. In the Tanikawa Residence there appears unexpectedly a new form of the artificial nature of which Shinohara had spoken. Although we can grasp the reality of the earth in the Tanikawa Residence, Nature is even more conceptualized here than in his previous works, where it remained hidden. The concept of earth here reminds us of that used by some contemporary earthwork artists.

I do not think Shinohara was motivated by the already highly valued concept of ultimate nature in oriental aesthetics. However, while contemplating the Tanikawa Residence, standing inside on this black earth or in the forest surrounded by snow and looking through the trees toward the house, I came to feel that latent in this house was a kind of sacralization of topos, in the same way that the House in White was a sacralized place for living. This topos is for me a sanctuary of "genius loci."

To the zero degree in meaning

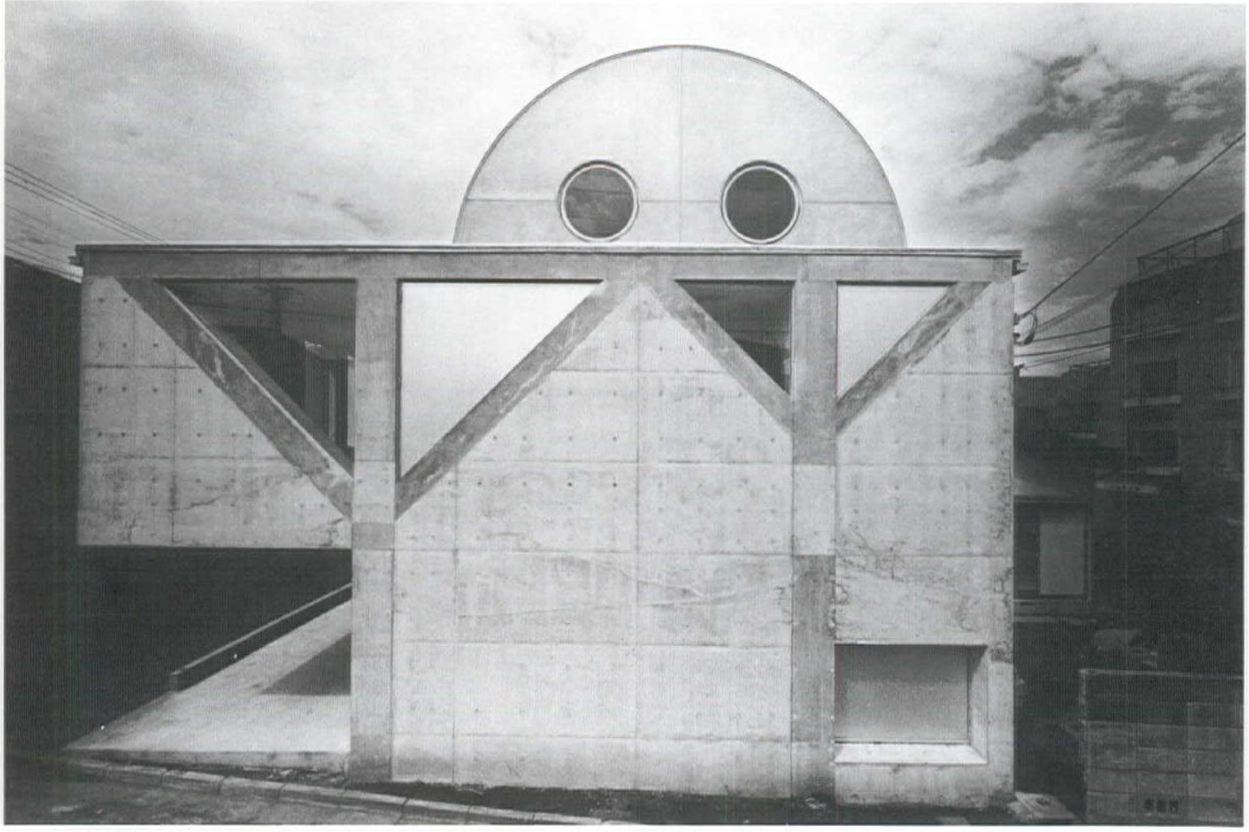
Generative form and the city
The characteristics of the House in Uehara (1976) become distinct when compared to Shinohara's cubic architecture. When analyzing the cubic architecture I represented the plans graphically with the reversal indications of positive and negative filling the rectangular frame as in a photograph (figure 6). Analyzing the cubic architecture in a volumetric sense, the geometric abstract space is conceived as a conceptual whole containing concrete space. Whereas the exterior perimeter wall in the cubic architecture performed the part of the positive figure in the gestalt, we find that the same kind of positive figure has become autonomous in the House in Uehara (figure 9).

In this house a large cantilevered volume projects out from one side, resulting from the functional necessity of creating a carport by carving usable space out of the densely packed mass of a crowded neighborhood; here the expression of the cantilever is different from the intentional formal meaning of the cantilevered form of the House in Hanayama No. 3 (1977) extending out over the hillside. If we think of the House in Uehara as having been born with the impulse of making the perimeter wall independent from the shape of the cubic architectural whole, we can view this design as the birth of a new process of shaping architecture without a frame which makes the whole imaginable. I tentatively call this new process a "geno-form"; a form that generates meaning.

This generative characteristic of the architecture of the House in Uehara became clear after the semi-circular vault had been mounted on top without any formal coherence with the lower part. Here, in contrast with the previous system in which an existing whole was divided, we have a process which generates a new total form each time an element is added into the composition. We can identify this as a system consisting of the indiscriminate gathering of differing elements. Thus, the House in Uehara is a fully developed expression of the new architectural concept which had just begun to appear in the Tanikawa Residence. The intent behind this conversion to a geno-form was to free architecture from anticipated meaning. It was not intended that the design would start from a symbolic meaning; the generation of meaning was left to the relationship between the meaning-free elements in the intrinsic structure (figure 9).

In the same way that the Tanikawa Residence signifies a particular relationship with the nature in which it is located, I think that the House in Uehara expresses an essential relationship with the colossal urban environment of Tokyo.

To avoid misunderstanding, I want to emphasize that Shinohara was not in any way thinking about seeking affinity with the neighborhood. The surprising clarity of the House in Uehara stands in distinct contrast to the almost amorphous houses surrounding it. Although the world of the city has increasingly attracted Shinohara's interest because of its reality as a symbolic order extending beyond architecture, he feels no motivation to resolve the so-called urban problem actively. Kazuo Shinohara uses, as a metaphorical resource for architecture, his intuition of the eternal exchange between order and disorder, the sacred and the vulgar, and the continuity and discontinuity which constitute the vital recreative power of the city. But his architectural images have not been contextually derived from the city. Consistent with Shinohara's iconoclasm, the design of the House in Uehara shows



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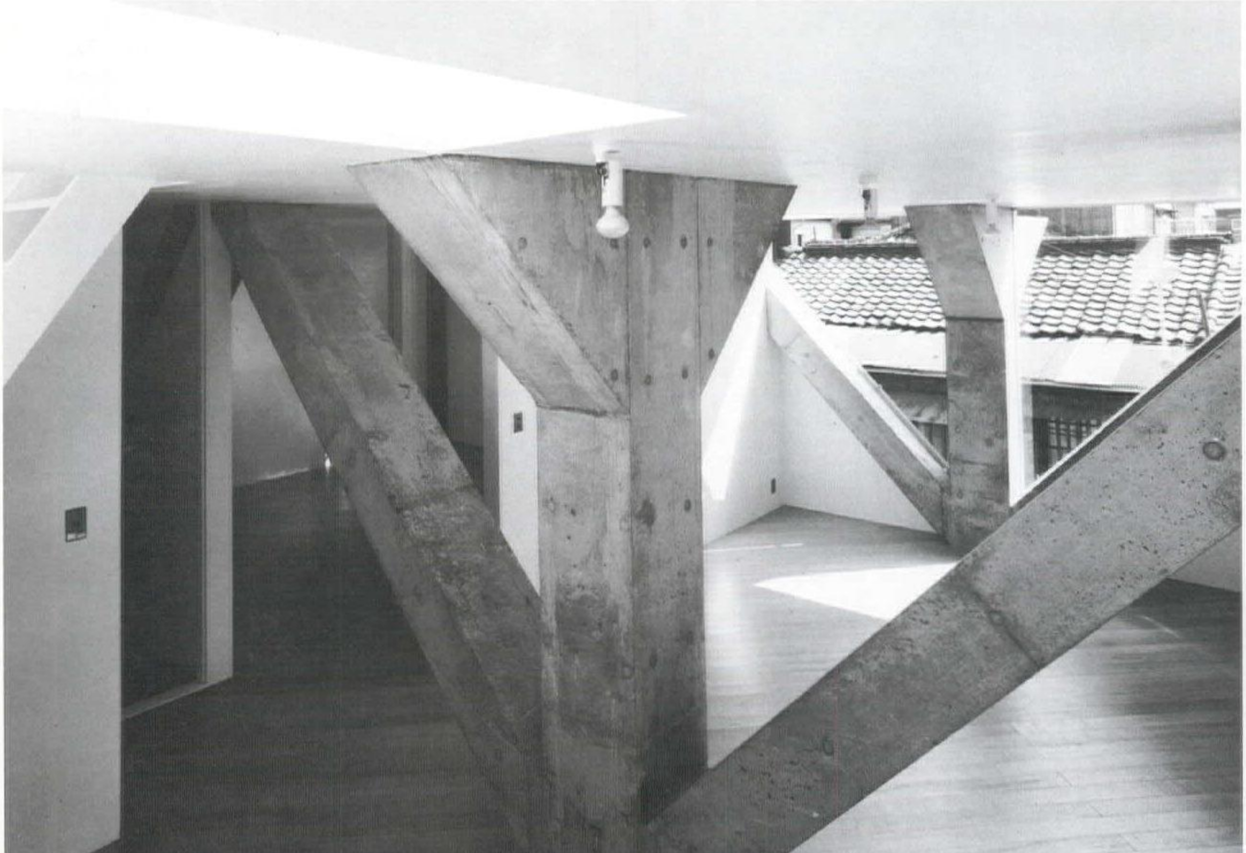
House in Uehara, exterior.



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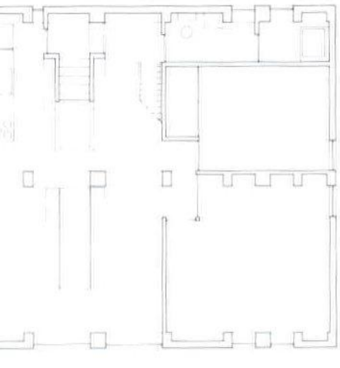
House in Uehara, interior.



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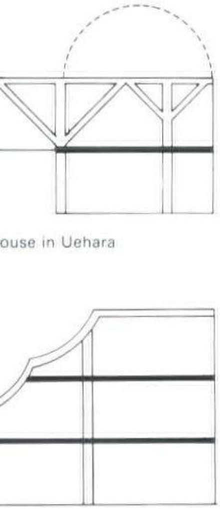

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no thought of injecting a sign into the context of the city.

This architecture is based upon a system, which I have termed geno-form, in which the only determining factors are the contrasting relations between elements, and in this sense this system is an architectural simulation of the city. It was an architecture intended to express through form the symbolic order in the city. The essential characteristic of this system is similar to what Shinohara called savagery. The geno-form here was not simply a play between different geometric figures. It must be said that if architects give importance to formal play, infinite variations of style would be possible in a process without rules, and architecture based only on formal play would lose the ability to produce meaning. Shinohara's concept of geno-form appears as a criticism of this process of formal play. When Shinohara proclaimed that houses are art, it was a pronouncement delivered as a challenge to modern society; therefore, in a period when mainstream house design was too infatuated with the play of forms, Shinohara turned to inorganic composition in an attempt to remain closer to the essence of art.

The Role of Structural Elements
It goes without saying that the importance of the House in Uehara is not only a matter of external appearance. Undoubtedly, as we have seen, at the basis of Shinohara's impulse the power of savagery was clearly apparent in the city of Tokyo. But it must be noted, that in order to establish this kind of form, the structural elements were assigned an unprecedented role. It is clear that the structure resulted from architectonic necessity, and that the form is dependent upon the structure. This correlation is natural; but beyond that, what could be the reason for having the structural elements stand out so conspicuously?

At the beginning of this essay I identified the concept of opposition as an invariant appearing through many of Shinohara's styles. Although each of the various styles had a meaning in its own time, if we examine Shinohara's development over a long period of time we find him moving toward the elimination of meaning. Using a metaphor from Roland Barthes, Shinohara is approaching a zero-degree style.[4] Looking back, the Tanikawa Residence and the House in Uehara seem almost unimaginably distant from the meaning-laden space in the House in White. In the course of time, Shinohara ultimately manifested his rejection of a world full of superficial meaning. If there existed an approach to the zero-degree of style–a style in which the image *is* the meaning–then it would follow that the role of the structural and functional elements would come into dominance. It was from just such an approach that the invariant relation in Shinohara's architecture–opposition, with its fundamental abstract relations–revealed itself as the core of the mechanism generating meanings. The elements themselves had important mutual relationships, and when they came to perform the role of cog-wheel in the meaning-producing machine, it was natural that this zero-degree style approach began to assert itself.

In the House in Uehara, it appears that in the design process the decision to use the cantilever came first, and that the search for the overall structural system followed. Shinohara was here aiming at a solution using both a column-beam structure and a bearing-wall structure–a complex hybrid structure resulting from the combination of a ferro-concrete system, the counterpart of the wooden column-support structure in the Tanikawa Residence, with the bearing-wall structure of his cubic architecture. In the House in Uehara, the supporting columns with diagonal braces, which Shinohara had first exposed in the Tanikawa Residence interior, became a group of larger and smaller braced columns in parallel rows of three each. These columns and walls together defined a large shell. This complexity can be visualized through the patterns of the columns and braces exposed in the exterior walls. The diagonal elements in the larger columns serve as the cantilever support structure (figure 10).

In the House in White and in some of the projects which followed it, the element that was used to traverse the shell was a vertical plane producing the opposition between the everyday and non-everyday parts of the architectural space. As it is not necessary here to emphasize this kind of opposition, the element traversing the shell is now nothing more than a planar element functionally dividing the interior of the shell and establishing a physical opposition between the plane and the shell. In the House in Uehara this planar element became the horizontal plane of the main floor, intersecting the main row of columns just at the point where the di-

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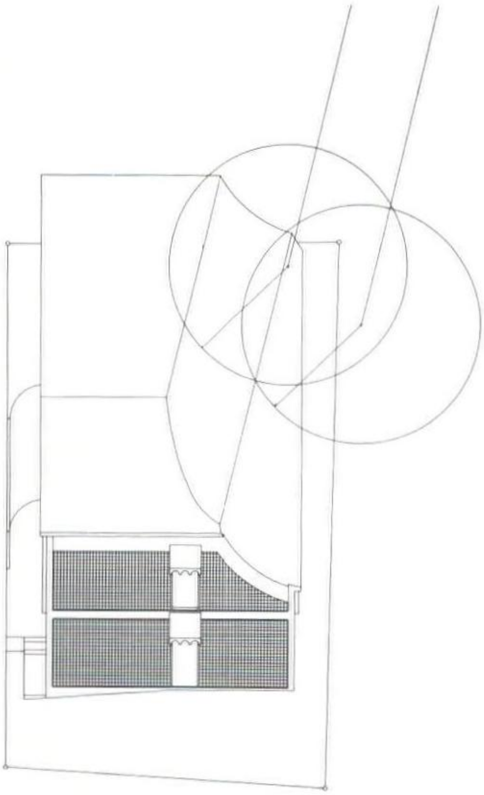
Roland Barthes, *Le Dégré Zéro de l'Ecriture* (Editions du Seuil, 1953).



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House under High-Voltage Lines, 1981, oblique projection.

agonal braces spring from the columns, resulting in the simple division of the architectural volume into two levels. In the second story the columns and diagonal braces appear exposed, impressive in their size and dominance (figure 10). But what we see here was not done for the sake of expression–it is nothing but a fragmentary index to make people perceive the whole composition, no matter where they stand within the space. It is not only that the physical composition is naked, but also that the elements appear scattered everywhere, to be perceived only as parts or fragments of the whole; each of the primary elements begins to take on the function of a synecdoche. This is not metaphorical space; no meaning exists prior to our encounter with the space itself. It is within this space that we find the geno-form which Shinohara called savagery.

Both the House on a Curved Road (1978) and the House Under High-Voltage Lines (1981) can be understood in the same way as the House in Uehara. In the former there is a hybrid structure like the shell of an egg internally supported by columns and beams arranged in the form of linked parallel crosses in the interior. The traversing wall divides and defines the interior volume, but without the frontality found in the wall of the House in White, this wall is nothing more than a partition. The large space here is not invested with meaning, but it does serve as a "topos" for the performance of relations between the structural elements (figure 3). In this large space there appears the dramatic encounter (i.e. opposition) between the vertical wall traversing the whole house and the highbeams penetrating the wall. The House Under High-Voltage Lines resembles the House in Uehara as a hybrid structure of columns and bearing walls traversed by horizontal planes (figure 10).

Epilogue

The locus of Kazuo Shinohara's architecture and architectural concepts begins to come more clearly into focus after attempting this correlational analysis of his works from the 1966 House in White into the 1980s. From the beginning, when Shinohara first introduced the large space into the vocabulary of traditional Japanese space, he developed his works according to his own perspective, re-reading architectural thoughts into artistic thoughts. The voidness in Japanese architecture was transformed into a symbolic entity, and geometric space was made to represent the autonomous whole of architectur furthermore, through these processes came the attempt to express symbolicall the savagery of the city through the device of the geno-form. In Shinohara's work all of this took place without diverging from the basic premise of architecture. Shinohara's concern for the city wa not prompted by issues relating to the so cial aspects of architecture, nor did it derive from an interest in the various images of architecture as perceived by society in general. For Shinohara, architecture has been from the very beginnin a problematic quest concerning the challenge of organizing meaning in the place where people live, through the use of the elements of structure.

I realized, after repeatedly and intensivel studying Shinohara's works over a long period of time, that the extremely abstra relation of opposition recurs in many different forms of expression. This relation is more than just one component in Shinohara's method of composition: it is the symbolic key to the interpretation of unconscious meaning. In his method, form is itself both abstract and lucid; it is not analogous to any phenomenal entity. But in this intrinsic structure of his works we can intuit the presence of metaphors deeply rooted in culture and its collective unconsciousness. With this invariant relation of opposition as a base, Shinohara's work has evolved through a great range of compositional variation. His creative activity developed gradually in strength, manifesting itself only through nonrepresentational pure form, without any reference to architectural historicism. For this we can call Shinohara an essentialist someone dedicated to looking for the tru nature of things. In Shinohara's exploration–the search for an architectural prototype through which, using contemporary technique, to produce meaning in the places for contemporary people to live–Shinohara is increasingly feeling the spir of 1920s modernism. Kazuo Shinohara has introduced a unique approach to architecture, aiming toward the rehabilitation of meaning in his contemporary era.

Translated by Neil Warren and Jorge M.E. Ferreras

Heidegger's Thinking on Architecture

par David Friedrich,
Temple of Juno at
gentum," 1830.

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Heidegger did not leave us any text on architecture, yet it plays an important role in his philosophy. His concept of being-in-the-world implies a man-made environment, and when discussing the problem of "dwelling poetically," he explicitly refers to the art of building. An exposition of Heidegger's thinking on architecture therefore ought to be a part of our interpretation of his philosophy. Such an exposition may also contribute to a better understanding of the complex environmental problems of our time.

In his essay "The Origin of the Work of Art," a major example is taken from architecture, which we shall use as our point of departure:

> A building, a Greek temple, portrays nothing. It simply stands there in the middle of the rock-cleft valley. The building encloses the figure of the god, and in this concealment lets it stand out into the holy precinct through the open portico. By means of the temple, the god is present in the temple. This presence of the god is in itself the extension and delimitation of the precinct as a holy precinct. The temple and its precinct, however, do not fade away into the indefinite. It is the temple-work that first fits together and at the same time gathers around itself the unity of those paths and relations in which birth and death, disaster and blessing, victory and disgrace, endurance and decline acquire the shape of destiny for human being. The all-governing expanse of this open relational context is the world of this historical people. Only from and in this expanse does the nation first return to itself for the fulfillment of its vocation.
>
> Standing there, the building rests on the rocky ground. This resting of the work draws up out of the rock the mystery of that rock's clumsy yet spontaneous support. Standing there, the building holds its ground against the storm raging above it and so first makes the storm itself manifest in its violence. The luster and gleam of the stone, though itself apparently glowing only by the grace of the sun, yet first brings to light the light of the day, the breadth of the sky, the darkness of the night. The temple's firm towering makes visible the invisible space of air. The steadfastness of the work contrasts with the surge of the surf, and its own repose brings out the raging of the sea. Tree and grass, eagle and bull, snake and cricket first enter into their distinctive shapes and thus come to appear as what they are. The Greeks called this emerging and rising in itself and in all things *phusis*. It clears and illuminates, also, that on which and in which man bases his dwelling. We call this ground the *earth*. What this word says is not to be associated with the idea of a mass or matter deposited somewhere, or with the merely astronomical idea of a planet. Earth is that whence the arising brings back and shelters everything that arises without violation. In the things that arise, earth is present as the sheltering agent.
>
> The temple-work, standing there, opens up a world and at the same time sets this world back again on earth, which itself only thus emerges as native ground. But men and animals, plants and things, are never present and familiar as unchangeable objects, only to represent incidentally also a fitting environment for the temple, which one fine day is added to what is already there. We shall get closer to what *is*, rather, if we think of all this in reverse order, assuming of cours that we have, to begin with, an eye for how differently everything then faces us. Mere reversing, done for its own sake, reveals nothing. The temple, in its standing there, first gives to things their look and to men their outlook on themselves.[1]

What does this passage tell us? First of we have to consider the context in which the quotation is used. When Heidegger mentions the temple, he does so to illum nate the nature of the work of art. Delibe ately he chooses to describe a work "th cannot be ranked as representational." That is, the work of art does not represent; rather it presents; it brings something into presence. Heidegger defines this something as "truth."[2] The example moreover shows that a building according to Heidegger is, or may be, a work of art. As a work of art the buildin "preserves truth." *What* is thus preserve and *how* is it done? The quotation indicates answers to both questions, but w shall also have to refer to other writings

[1] **Martin Heidegger, *Poetry, Language, Thought*, ed. Hofstadter (New York: Harper & Row, 1971), pp. 41ff.**

[2] ***Poetry, Language, Thought*, p. 36.**

of Heidegger's to arrive at the needed understanding.

The *what* in our question comprises three components. First, the temple makes the god present. Second, it fits together what shapes the destiny of human being. Finally, the temple makes all the things of the earth visible: the rock, the sea, the air, the plants, the animals, and even the light of the day and the darkness of the night. In general, the temple "opens up a world and at the same time sets this world back again on earth." In doing this, it sets truth into work.

To understand what all this means, we may look at the second question, the *how*. Four times Heidegger repeats that the temple does what it does by "standing there." Both words are important. The temple does not stand anywhere, it stands *there*, "in the middle of the rock-cleft valley." The words rock-cleft valley are certainly not introduced as an ornament. Rather they indicate that temples are built in particular, prominent places. By means of the building the place gets extension and delimitation, whereby a holy precinct for the god is formed. In other words, the given place possesses a hidden meaning which is revealed by the temple. How the building makes the destiny of the people present, is not explicit, but it is implied that this is done simultaneously with the housing of the god, that is: the fate of the people is also intimately related to the place. The visualization of the earth, finally, is taken care of by the temple's standing. Thus it *rests* on the ground, and *towers* into the air. In doing this, it gives to things their look. Heidegger also emphasizes that the temple is not added to what is already there, but that the building first makes the things emerge as what they are.

Heidegger's interpretation of architecture as a "setting-into-work of truth" is new, and may even seem bewildering. Today we are used to thinking of art in terms of expression and representation, and consider man or society its origin. Heidegger, however, emphasizes that "it is not the 'N.N. fecit' that is to be made known. Rather, the simple 'factum est' is to be held forth into the Open by the work."[3] This factum is revealed when a world is opened up to give things their look. *World* and *thing* are hence interdependent concepts, which we have to consider to arrive at a better understanding of Heidegger's theory.

In "The Origin of the Work of Art" Heidegger does not offer any true explanation, and he even remarks that "here, the nature of world can only be indicated." In *Being and Time*, however, he defines world ontically as the totality of things, and ontologically as the Being of these things. In particular, the word means the *wherein* a human being is living.[4] In his later writings he offers an interpretation of this wherein as a fourfold of earth, sky, mortals and divinities. Again we may feel bewilderment, being used to thinking of world in terms of physical, social or cultural structures. Evidently Heidegger wants to remind us of the fact that our everyday life-world really consists of concrete *things*, rather than the abstractions of science. Thus he says:

> Earth is the building bearer, nourishing with its fruits, tending water and rock, plant and animal.
>
> The sky is the sun's path, the course of the moon, the glitter of the stars, the year's seasons, the light and dusk of day, the gloom and glow of night, the clemency and inclemency of the weather, the drifting clouds and blue depth of the ether.
>
> The divinities are the beckoning messengers of the godhead. Out of the hidden sway of the divinities the god emerges as what he is, which removes him from any comparison with beings that are present. The mortals are human beings. They are called mortals because they can die. To die means to be capable of death as death.[5]

Each of the four is what it is because it mirrors the others. They all belong together in a "mirror-play" which constitutes the world.[6] The mirror-play may be understood as an open "between," wherein things appear as what they are. In his essay on Johan Peter Hebel, Heidegger in fact talks about man's stay "between earth and sky, between birth and death, between joy and pain, between work and word," and calls this "multifarious between" the *world*.[7] We see, thus, that Heidegger's world is a concrete totality, as was already suggested by the references made in the discussion of the Greek temple. Rather than being conceived as a distant world of ideas, it is given here and now.

As the totality of things, the world is how-

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lartin Heidegger, *Being and Time* (New York: Harper, 962), p. 93.

oetry, Language, Thought, p. 178.

oetry, Language, Thought, p. 179.

lartin Heidegger, *Hebel der Hausfreund* (Pfullingen: . Neske, 1957), p. 13.

'oetry, Language, Thought, p. 65.

ever not a mere collection of objects. When Heidegger understands the thing as a manifestation of the fourfold he revives the original meaning of *thing* as a coming together or "gathering."[8] Thus he says: "Things visit mortals with a world."[9] Heidegger also offers examples to illustrate the nature of the thing. A jug is a thing, as is a bridge, and they gather the fourfold each in their own way. Both examples are relevant in our context. The jug, thus, forms part of that equipment which constitutes man's proximal environment, whereas the bridge is a building which discloses more comprehensive properties of the surroundings. Thus Heidegger says:

> The bridge *gathers* the earth as landscape around the stream . . . It does not just connect banks that are already there. The banks emerge as banks only as the bridge crosses the stream.[10]

The bridge thus makes a *place* come into presence, at the same time as its elements emerge as what they are. The words "earth" and "landscape" are not used here as mere topographical concepts, but to denote *things* that are disclosed through the gathering of the bridge. Human life takes place on earth, and the bridge makes this fact manifest. What Heidegger wants to reveal in his examples, is the *thingness* of the things, that is, the world they gather. In *Being and Time* the technique used was called "phenomenology."[11] Later, however, he introduced the term *Andenken* to indicate that kind of genuine thought which is needed to disclose a thing as a gathering. In this kind of thought *language* comes to play a primary role as a source of understanding.

When Heidegger wrote "The Origin of the Work of Art" he had not yet arrived at the concept of the fourfold, but in the description of the Greek temple all the elements are there: the god, the human beings, the earth, and, implicitly, the sky. As a thing, the temple relates to all of them, and makes them appear as what they are, at the same time as they are united into a "simple onefold." The temple is man-made, and is deliberately created to reveal a world. Natural things, however, also gather the fourfold, and ask for an interpretation which discloses their thingness. This disclosure happens in poetry, and in general in language which "itself is poetry in the essential sense."[12] "Language, by naming beings for the first time, first brings beings to word and to appearance."[13]

The last quotation shows that in order to grasp Heidegger's theory of art we also have to consider his notion of language. Just as he does not understand art as representation, he cannot accept the interpretation of language as a means of communication, based on habit and convention. When things are named for the first time, they are recognized as what they are. Before they were just transient phenomena, but the names *keep* them, and a world is opened up. Language is therefore the original art, and discloses "that into which human being as historical is already cast. This is the earth and, for an historical people it's earth, the self-closing ground on which it rests together with everything that already is, though still hidden from itself. It is, however, its world, which prevails in virtue of the relation of human being to the unconcealedness of Being."[14]

The quotation is important because it tells us that the earth and the world of an historical people are what they are because they are related to the earth and the world in general. Language keeps *the* world but is used to say *a* world. Heidegger accordingly defines language as the "House of Being." Man *dwells* in language, that is: when he listens to and responds to language the world which he *is*, is opened up, and an authentic existence becomes possible. Heidegger calls this to "dwell poetically."[15] Thus he says:

> But where do we humans get our information about the nature of dwelling and poetry? . . . [We receive] it from the telling of language. Of course, only when and only as long as [we respect] language's own nature.[16]

Language's own nature is poetical, and when we use language poetically the house of being is opened.

Poetry speaks in images, Heidegger says and "the nature of the image is to let something be seen. By contrast, copies and imitations are mere variations on the genuine image . . . which lets the invisibl be seen . . ."[17] What this means is beautifully shown by Heidegger in his analysis of Trakl's poem "A Winter Evening."[18] What, then, is the origin of poetical images? Heidegger answers explicitly:

[13] *Poetry, Language, Thought*, p. 73.

[8] *Poetry, Language, Thought*, p. 174.

[9] *Poetry, Language, Thought*, p. 200.

[10] *Poetry, Language, Thought*, p. 152.

[14] *Poetry, Language, Thought*, p. 75.

[11] *Being and Time*, p. 58ff.

[15] We may in this context be reminded of Rilke's IX Elegy: "Are we perhaps *here* to say: house, bridge, fountain, gate, jug, fruit tree, window–at best: column, tower . . ."

[16] *Poetry, Language, Thought*, p. 215.

[17] *Poetry, Language, Thought*, p. 226.

[18] *Poetry, Language, Thought*, p. 194ff.

[12] *Poetry, Language, Thought*, p. 74.

"Memory is the source of poetry."[19] The German word for memory, *Gedächtnis*, means "what has been thought." Here we must, however, understand "thought" in the sense of *Andenken*, that is, as the disclosure of "thingness" or the "Being of beings." Heidegger points out that the Greeks already understood the relation between memory and poetry. To them the goddess Mnemosyne, memory, was the mother of the Muses, with Zeus as the father. Zeus needed memory to bring forth art: Mnemosyne herself was the daughter of the earth and the sky, which implies that the memories which give rise to art are our understanding of the relationship between earth and sky. Neither earth alone nor sky alone produces a work of art. Being a goddess, Mnemosyne is also simultaneously human and divine, and her daughters are hence understood as the children of a complete world: earth, sky, humans and divinities. The poetic image is therefore truly integral, and radically different from the analytic categories of logic and science. "Only image formed keeps the vision," Heidegger says, and he adds: "Yet image formed rests in the poem."[20] In other words, memory is kept in language.

What a poem and a work of art have in common is the quality of image. A work is in addition a thing, whereas a thing proper does not possess the quality of image. As a gathering it mirrors the fourfold in its way, but its thingness is hidden and has to be disclosed by a work.[21] In "The Origin of the Work of Art" Heidegger shows how van Gogh's painting of a pair of peasant shoes reveals the thingness of the shoes. By themselves, the shoes are mute, but the work of art speaks for them. Van Gogh's painting may be called a representational image, but we have to emphasize that its quality as a work of art does not reside in its being a representation. Other works of art, in particular works of architecture, do not portray anything, and are hence to be understood as non-representational images. What is a non-representational image? To answer this question, we first have to say a few more words about man-made things as such.

Although poetry is the original art, it does not exhaust the disclosure of truth. In poetic language truth is brought "to word." But it also has to be "set-into-work." Human life takes place between earth and sky in a concrete sense, and the things which constitute the place have to be disclosed in their immediate presence. It is this kind of disclosure which is accomplished by the Greek temple. Thus Heidegger says that a man dwells "between work and word." The word opens up the world, the work gives the world presence. In the work the world is set back on earth, that is, it becomes part of the immediate here and now, whereby the latter is disclosed in its being. Heidegger in fact emphasizes that "Staying with things is the only way in which the fourfold stay within the fourfold is accomplished at any time . . . "[22] When man stays with things in a fourfold way, he "saves the earth, receives the sky, awaits the divinities and initiates the mortals."[23] Therefore "mortals nurse and nurture things that grow, and specially construct things that do not grow."[24] Buildings are such constructed things, which gather a world and allow for dwelling. In the Hebel essay Heidegger says:

> The buildings bring the earth as the inhabited landscape close to man and at the same time place the nearness of neighbourly dwelling under the expanse of the sky.[25]

This statement offers a clue to the problem of architectural gathering. What is gathered, Heidegger says, is the "inhabited landscape." An inhabited landscape obviously is a *known* landscape, that is, something that is *gewohnt*. This landscape is brought close to us by the buildings,[26] or in other words, the landscape is revealed as what it is in truth.

What, however, is a landscape? A landscape is a space where human life takes place. It is therefore not a mathematical, isomorphic space, but a "lived space" between earth and sky. In *Being and Time* Heidegger points out that "what is within-the-world . . . is also within space,"[27] and explains the concrete nature of this space referring to *above* as what is on the ceiling, and *below* as what is on the floor. He also mentions sunrise, midday, sunset and midnight, which he relates to the regions of life and death.[28] Already in his early *magnum opus*, the notion of the fourfold was implicit. In general he points out that spatiality (*Räumlichkeit*) is a property of being-in-the-world. The discussion of the Greek temple indicates the nature of spatiality. Thus the building defines a precinct, or a space in the narrower sense of the word, at the same time as it discloses the nature of this space by standing there. In his essay "Building Dwelling

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9
artin Heidegger, *Vorträge und Aufsätze II* fullingen: G. Neske, 1954), p. 11.

2
oetry, Language, Thought, p. 151.

3
oetry, Language, Thought, p. 150.

4
oetry, Language, Thought, p. 151.

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oetry, Language, Thought, p. 7.

5
ebel der Hausfreund, p. 13.

6
Hebel der Hausfreund, Heidegger explicitly onsiders villages and cities "buildings" in this ontext.

1
Ve may again recall Rilke's IX Elegy: "And these hings, that live only in passing . . . look to us, the nost fugitive, for rescue."

7
eing and Time, p. 135.

8
eing and Time, p. 137.

Thinking" Heidegger makes this more precise, saying that buildings are *locations* and that "the location *admits* the fourfold and *installs* the fourfold."[29] Admittance (*Einräumen*) and installment (*Einrichten*) are the two aspects of spatiality as location. The location makes room for the fourfold and simultaneously discloses the fourfold as a built thing. Space is therefore not given a priori, but is provided for by locations. "Building never shapes pure 'space' as a single entity . . . (but) because it produces things as locations, building is closer to the nature of space and to the origin of the nature of 'space' than any geometry and mathematics."[30] A location or "lived space" is generally called a *place*, and architecture may be defined as the *making of places*.

In a late essay "Art and Space," Heidegger in more detail discusses the twofold nature of spatiality.[31] First he points out that the German word *Raum*, (space) originates from *räumen*, that is, the "freeing of places for human dwelling." "The place opens a domain, in gathering things which here belong together."[32] "We must learn to understand that the things themselves are the places and that they do not simply belong to the place."[33] Second, the places are embodied by means of sculptural forms. These embodiments are the characters which constitute the place.[34] Sculptural embodiment is therefore the "incarnation of the truth of Being in a work which founds its place."[35] Heidegger's statements here may be related to his description of the temple as a body which stands, rests and towers. The thingness of a building is hence determined by its being between earth and sky as a sculptural form. In general this lines up with Heidegger's saying that the building sets the world back on earth. Setting back on earth means embodiment, or in other words, that the fourfold is brought into a thing through the act of building, in the sense of *poiesis*. The earth thus *keeps* the world that is opened up.

The simultaneous opening and keeping may be understood as a conflict which Heidegger calls the "rift" (*Riss*). "The conflict, however, is not a rift as a mere cleft is ripped open; rather, it is the intimacy with which opponents belong together." "The rift does not let the opponents break apart; it brings the opposition of measure and boundary into their common outline."[36] The world, thus, offers a measure to things, whereas the earth as embodiment provides a boundary. If we refer this to our context, we may say that a place is determined (*be-dingt*) by its boundary. Architecture occurs in the boundary as an embodiment of world. Thus Heidegger says: "A boundary is not that at which something stops but, as the Greeks recognized, the boundary is that from which something begins its presencing."[37] A boundary may also be understood as a threshold, that is, as an embodiment of a *difference*. In his analysis of Trakl's "A Winter Evening," Heidegger shows how the threshold carries the unity and difference of world and thing (earth).[38] In a building the threshold separates and simultaneously unites an outside and an inside, that is, what is alien and what is habitual. It is a gathering middle where an outlook on the world is opened up and se back on earth.

Boundary and threshold are constituent elements of place. They form part of a figure which discloses the spatiality in question. In German its nature is beautifully shown by language itself, as the word *Riss* means rift as well as plan. The rift is fixed in place by a *Grund-riss* as well as an *Auf-riss*, that is, by a plan and an elevation, whereby the twofold nature of spatiality again becomes apparent. Together, plan and elevation make up a figure or *Gestalt*. "Gestalt is the structure in whose shape the rift composes and submits itself."[39] The word Gestalt evidently could be replaced by 'image,' whereby we gain an important clue to the understanding of the architectural image. As the image comprises an elevation, it is a thing rathe than a mere geometrical diagram. "Standing there" as elevation, the architectural image sets the rift "back into the heavy weight of stone, the dumb hardness of wood, the dark glow of colours."[40]

Here Heidegger's thinking on the art of building stops. In a certain sense it stops outside architecture itself, as it does not treat the problems of the architectural Gestalt as such. And in fact Heidegger starts his essay "Building Dwelling Thinking," saying: "This thinking on building does not presume to discover architectural ideas, let alone give rules for building."[41] The statement clearly shows that for Heidegger the arts have their particular professional problems, which he, as a philosopher, did not feel qualified to discuss. His aim was not to offer any explanation, but to help man to get back to authentic dwelling. All the same, he certainly laid a foundation for the field, and demonstrated that his *Andenken* may bring us far "on the way to architecture."[42]

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[29] *Poetry, Language, Thought*, p. 158.

[37] *Poetry, Language, Thought*, p. 154.

[38] *Poetry, Language, Thought*, p. 202.

[30] *Poetry, Language, Thought*, p. 158.

[31] Martin Heidegger, *Die Kunst und der Raum* (St. Gallen, 1969).

[32] *Die Kunst und der Raum*, p. 10.

[33] *Die Kunst und der Raum*, p. 11.

[34] *Die Kunst und der Raum*, p. 12.

[35] *Die Kunst und der Raum*, p. 13.

[39] *Poetry, Language, Thought*, p. 64.

[40] *Poetry, Language, Thought*, p. 63.

[41] *Poetry, Language, Thought*, p. 145.

[36] *Poetry, Language, Thought*, p. 63.

To sum up, we may repeat the main points of Heidegger's thinking on architecture. The general point of departure is the thought that the world only emerges as what it is, when it is "said" or "set into work." The discussion of the Greek temple illustrates this idea, stating that the work "opens up a world" and "first gives to things their look." Already in *Being and Time*, Heidegger emphasized that "discourse is existentially equiprimordial with state-of-mind and understanding."[43] In other words, it is impossible to consider the world separately from language, which is understood as the *House of Being*. Language names things which "visit man with a world," and man's access to the world is through listening and responding to language. Thus Heidegger quotes Hölderlin's dictum: *Wat bleibt aber, stiften die Dichter*, what remains, the *factum est*, is founded by the poets.

To give the world immediate presence, however, man also has to set truth into work. The primary purpose of architecture is hence to make a world visible. It does this as a thing, and the world it brings into presence consists in what it gathers. Evidently a work of architecture does not make a total world visible, but only certain of its aspects. These aspects are comprised in the concept of spatiality. Heidegger explicitly distinguishes spatiality from space in a mathematical sense. Spatiality is a concrete term denominating a domain (*Gegend*) of things which constitute an inhabited landscape.[44] The Greek example in fact starts with the image of a rock-cleft valley and later refers to several concrete elements of earth and sky. But it also suggests that landscape cannot be isolated from human life and from what is divine. The inhabited landscape therefore is a manifestation of the fourfold, and comes into presence through the buildings which bring it close to man. We could also say that inhabited landscape denominates the spatiality of the fourfold. This spatiality becomes manifest as a particular *between* of earth and sky, that is, as a *place*.[45]

When we say that life takes place, we imply that man's being-in-the-world mirrors the between of earth and sky. Man *is* in this between, standing, resting, and acting. The natural and man-made things which constitute the boundaries of the between, also stand, rest and tower, to recall the terms used in Heidegger's description of the Greek temple. Thus they embody characters which mirror man's state-of-mind (*Befindlichkeit*), at the same time as they delimit a precinct which admits man's actions. A work of architecture therefore discloses the spatiality of the fourfold through its standing there. Standing there, it admits life to happen in a concrete place of rocks and plants, water and air, light and darkness, animals and men.[46] Standing there, however, implies that what is standing must be understood as a materialized image. It is the "luster and gleam of the stone which brings to light the light of the day, the breadth of the sky, the darkness of the night." A work of architecture is therefore not an abstract organization of space. It is an embodied Gestalt, where the *Grundriss* mirrors the admittance and the *Aufriss* the mode of standing.[47] Thus it brings the inhabited landscape close to man, and lets him dwell poetically, which is the ultimate aim of architecture.

We have already pointed out that Heidegger does not offer any further explanation of the architectural Gestalt or image. The discussion of the Greek temple, however, suggests its nature. The words "extension," "delimitation," "standing," "resting," and "towering," refer to modes of being-in-the-world in terms of spatiality. Although the possibilities are infinite, the modes always appear as variations on archetypes. We all know some of these, as column, gable, arch, dome, or tower. The very fact that language names these things, proves their importance as types of images which visualize the basic structure of spatiality.[48] But here we go beyond the limits of the present essay, and enter the field of architectural theory proper.

Heidegger's thinking on architecture is of great immediate interest. At a moment of confusion and crisis, it may help us to arrive at an authentic understanding of our field. Between the two wars, architectural practice was founded on the concept of "functionalism," which got its classical definition in the slogan "Form follows function."[49] The architectural solution should, thus, be derived directly from the patterns of practical use. During the last decades it has become increasingly clear that this pragmatic approach leads to a schematic and characterless environment, with insufficient possibilities for human dwelling. The problem of *meaning* in ar-

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is interesting to notice that Heidegger's basic ideas
n world, thing, spatiality and building were implicit
ready in *Being and Time* (1927). "The Origin of
he Work of Art" (1935) does not represent a new
eparture, but rather brings us a step further on the
ay. The later essays on "The Thing" (1950) and
Building Dwelling Thinking" (1951) as well as the
te text on "Art and Space" (1969), clarify and
rganize the thoughts contained in "The Origin of the
Vork of Art." In our opinion, therefore, Heidegger's
hinking shows great consistency and may certainly
e understood as a "way," a metaphor he himself
ked to use.

3
eing and Time, p. 203.

6
his is also how the world is described in *Genesis I*.

7
is therefore something more than a matter of
onvenience when architects present their projects by
neans of plans and elevations.

4
leidegger's term *Gegend* (in *Gelassenheit*, Pfullingen
959, pp. 38ff.) may be translated with "domain" or
region."

8
/e may infer that a theory and history of archetypes
urgently needed.

9
ouis Sullivan who coined the phrase, hardly
tending it in a radical functionalist sense.

5
n several occasions Heidegger uses the German
ord *Ort*, for instance in "Art and Space" where we
ad: "Der Ort öffnet jeweils eine Gegend, indem
r die Dinge auf das Zusammengehören in ihr
ersammelt." This sentence presents Heidegger's
hinking on architecture in a nutshell!

chitecture has therefore come to the fore.[50] So far, it has mostly been approached in semiological terms, whereby architecture is understood as a system of conventional signs.[51] Considering architectural forms as representations of something else, semiological analysis has, however, proved incapable of explaining works of architecture as such. Here Heidegger comes to our rescue. His thinking on architecture as a visualization of truth restores its artistic dimension and hence its human significance.[52] By means of the concepts of world, thing, and work, he leads us out of the impasse of scientific abstraction, and back to what is concrete, that is, to the *things themselves*.

This does not mean, however, that the problems are solved. Today we are only a a beginning. This is apparent in architectural practice, where functionalism is being abandoned while a new architecture of images is emerging.[53] Heidegger's thinking may help us to understand what this implies, and his *Andenken* is certainly the method we need to gain a fuller understanding of the things themselves. In his essay "Building Dwelling Thinking," Heidegger in fact concludes that "thinking itself belongs to dwelling in the same sense as building . . . Building and thinking are, each in its own way, inescapable for dwelling."[54] In other words, we have to give thought to the thingness of things in order to arrive at a total vision of our world. Through such a poetical *Andenken* we take "the measure for architecture, the structure of dwelling."[55]

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[50] See C. Jencks and G. Baird, eds., *Meaning in Architecture* (London: Design Yearbook Limited, 1969).

[51] See G. Broadbent, R. Bunt, and C. Jencks, eds., *Signs, Symbols and Architecture* (Chichester: Wiley, 1980).

[52] This was also accomplished by Louis Kahn, whose conception of architecture comes surprisingly close to Heidegger's thinking. See C. Norberg-Schulz, "Kahn, Heidegger and the Language of Architecture," *Oppositions 18* (New York, 1979).

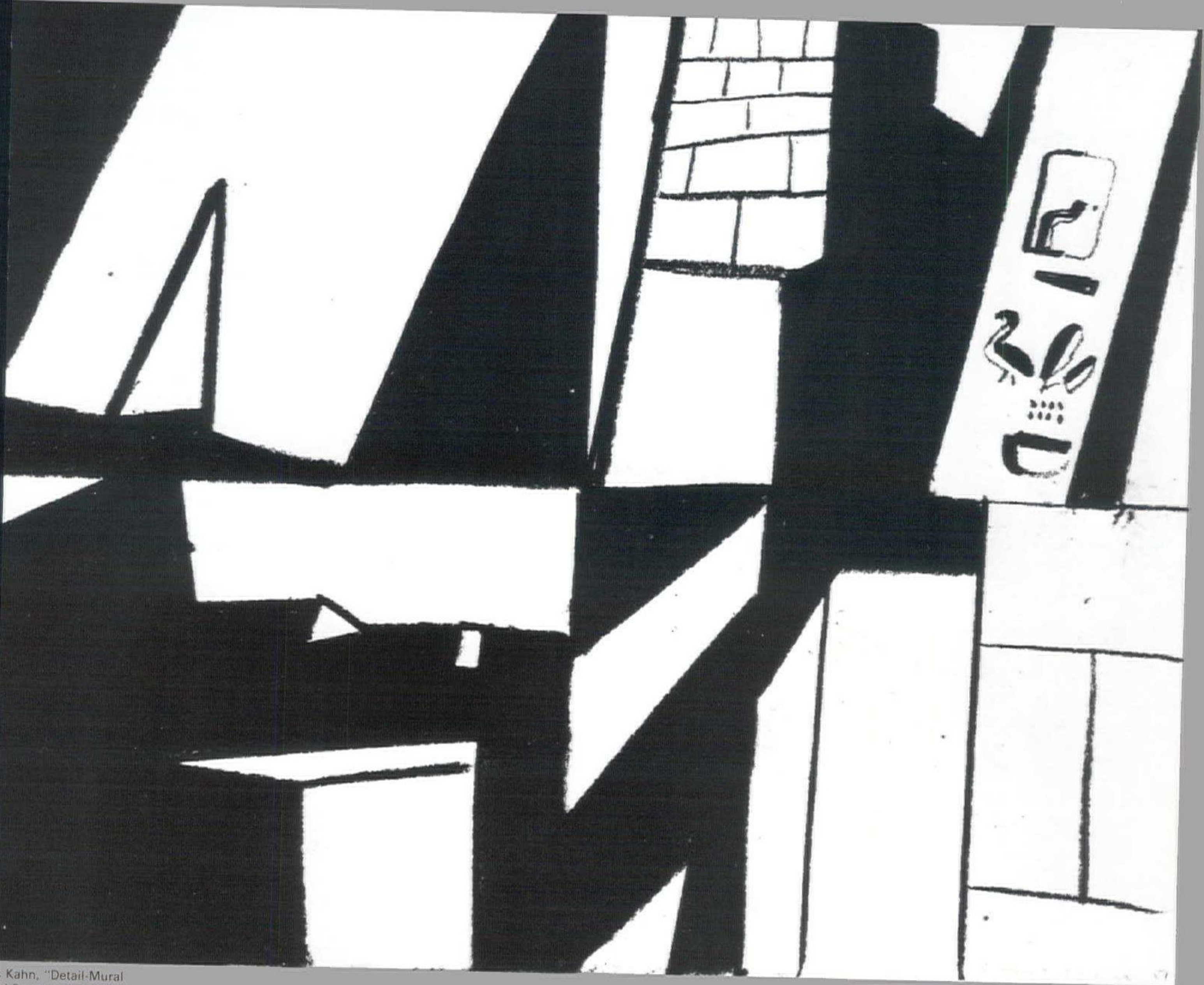
[53] See C. Norberg-Schulz, "Chicago: vision and image," *New Chicago Architecture* (Chicago: Rizzoli, 1981).

[54] *Poetry, Language, Thought*, p. 150.

[55] *Poetry, Language, Thought*, p. 227.

Joseph Burton

Notes from Volume Zero: Louis Kahn and the Language of God



Kahn, "Detail-Mural
al Based on Egyptian
ves)", 1951.

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The architecture of Louis I. Kahn speaks of timeless human needs, psychic, as well as physical, through a consciously inscribed universal language. Kahn tersely summarized this particular collective aspect of his architecture in the following aphorisms:

> Art is the language of God.[1]
> The only language of man is art.[2]

In order to achieve these expressive ends, Kahn embodied within his work images which refer to prototypical forms of communication, both mortal and divine. By lifting his architecture into the realm of the absolute, Kahn evidently hoped to make a meaningful architecture expressive of the requirements of the human soul (psyche), as well as of human physical necessities. Kahn's aesthetic interest in a language of universal creative power apparently stems in part from a contact early in life, through his mother, with German Romantic thought. The Romantics viewed the poet or the creative artist as the priestlike mouthpiece of deity, a doctrine formulated in the late eighteenth and nineteenth centuries from a synthesis of several mystical traditions, largely derived from the European Renaissance. It is in this sense–art manifesting divine revelation–that this article will interpret Kahn's aesthetic theory and its architectural application.

Kahn's Aesthetic Theory

In order to understand how Kahn expected the meaning embodied in his architecture to be understood, it is helpful to look at his aesthetic theory pronounced over the last twenty-five years of his life during the late bloom of his architectural career. This assumes that his aesthetic theory was not formulated during the last third of his life, but that it was an already existing mature philosophy, recalled from memory, and only re-articulated in lectures and writing. The influence of Romantic ideals upon Kahn's thought will be discussed later.

Kahn founded the expressed meaning of his art upon what he called "Order" and "Form." Order, for him, is all inclusive and self-evident. He explained:

> I came to a statement that "order is" because I could never write what it is . . . I made a long list of what I *thought* it was. And when I threw the list away, "order is" remained. It sort of included everything by not trying to say what it is. That word "is" has a tremendous sense of presence.[3]

Order contained his *Weltanschauung*, a cosmology that encompasses two aspects of being, the inner realm of the soul (Psyche), which is immeasurable, and the outer realm of the phenomenal world, which is measurable. According to Kahn, Psyche, an ineffable source underlying Order and all being, is a kind of "World Soul" that possesses an a priori "Existence Will," an eternal *willing to be*. He said:

> I think of the Psyche as being a kind of prevalence–not a single soul in each of us–but rather a prevalence from which each one of us always borrows a part . . . and I feel that this psyche is made of immeasurable aura, and that physical nature is made of that which lends itself to measurement. I think that Psyche prevails over the entire universe. . . .[4]

The Psyche is expressed by feeling and also thought and I believe will always be unmeasurable. I sense that the psychic Existence Will calls on nature to make what it (Psyche) wants to be.[5]

Kahn poetically described the inexpressible, undefinable nature of Psyche as "Silence" and "Volume Zero," an imaginary record of soul, the primal book before all books where Existence Will is inalterably inscribed forever.[6]

The a priori Existence Will within Psyche, Kahn explained, is the beginning of "Form . . . a world within a world."[7] Form is a psychic predisposition *to be* and consists of inseparable abstract elements which invoke a nature, "what a thing wants to be."[8] Being immeasurable in essence, it is never completely realized in concrete terms and, thus, it has an infinite potentia for expression. When it manifests itself within the boundaries of the phenomenal world, it takes on a circumstantial aspect reflecting in its physical appearance the situation of its occurrence at a particular place at a particular time: "For example," he said:

> . . . in the differentiation of a spoon from spoon, spoon characterizes a form havin two inseparable parts, the handle and the bowl. A spoon implies a specific design made of silver or wood, big or little, shallow or deep. Form is 'what.' Design is 'how.' Form is impersonal. Design

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"The Mind of Louis I. Kahn," *Architectural Forum*, Vol. 137, No. 1, July/August 1972, p. 46.

1
Louis I. Kahn, "Space and the Inspirations," *l'Architecture d'Aujourd'hui*, Vol. 142, February/March, 1969, p. 13.

2
John W. Cook and Heinrich Klotz, *Conversations with Architects* (New York: Praeger Publishers, 1973), p. 183.

4
Louis I. Kahn, "A Statement by Louis I. Kahn," *Arts and Architecture*, Vol. 81, May 1964, p. 19.

5
Vincent Scully, Jr., *Louis I. Kahn* (New York: George Braziller, Inc., 1962), p. 118.

6
William S. Huff, "Louis Kahn: Sorted Recollections and Lapses in Familiarities", *Little Journal* (Society of Architectural Historians, Western New York Chapter) Vol. 5, no. 1, September 1981, p. 6. Huff: ". . . [Kahn] loved the beginning of things. He said that, when you look at a problem, look at the beginning. And, in the history of architecture, don't go back to Volume One; go back to Volume Zero. For Volume Zero is what precedes shape, it is the source."

7
"Louis I. Kahn Talks with Students," *Architecture at Rice, No. 26* (Houston, Texas: Rice University, 1969), p. 24. See also, Louis I. Kahn, *A. I. A. Journal*, Vol. 33, No. 6, June 1960, p. 99.

8
Scully, pp. 114–115.

> belongs to the designer. Design is a circumstantial act, how much money there is available, the site, the client, the extent of knowledge. Form has nothing to do with circumstantial conditions.[9]

The human soul also partakes of Form, he explained, through one's sharing in the pervasive World Psyche, terming its universal attribute as "commonality," "commonness," and "human agreement."[10] It expresses its Existence Will within the limiting constraints of time and space as "nature" through unconscious and conscious agencies called "instruments," and at other times, "singularities."[11] Hence, according to Kahn, Form is revealed unconsciously in nature through the singularity of light, the sun:

> The sun is the threshold where the urges arise to express, it is the source of energy and all present.[12]

> The sun is,
> thus the universe.[13]

and through the instrument of the individual human psyche:

> The mind is the soul, the spirit and the brain, the brain is purely physical.
>
> That is why a machine will never be able to compose Bach.
>
> The mind is really the center of the unmeasurable, the brain is the center of the measurable.
>
> The soul is the same in all. Every mind is different. Every one is a singularity.[14]

Humanity as the conscious instrument of Psyche extends through its "institutions," such as art, religion, and education, the immeasurable quality of the Existence Will beyond that of nature.[15] This is because humankind serves Form consciously and therefore has choice.[16] Thus, in Kahn's sense of Order, the phenomenal world descends from the nonphysical world of Form expressing its will to be through unconscious and conscious instrumentalities. He summarized this in poetic imagery as the metamorphoses between Silence and Light:

> Silence to Light
> Light to Silence
> The threshold of their crossing
> is the Singularity
> is the Inspiration
> (where the desire to express
> meets the possible)
> is the Sanctuary of Art
> is the Treasury of the Shadows
> Material cast shadows,
> shadows belong to light.[17]

This brief survey of Kahn's concept of Form and its central position in his world view facilitates an understanding of the means through which he intended to imbue his architecture with meaning and value. His aesthetic theory is primarily this: a language held in common indicates meaning through a system of shared signifiers.[18] In his own words, "Art is man's only real language since it strives to communicate in a way that reveals the 'human' and that the will to be (the Existence Will) in man is really the will to express."[19] Consequently, he founded his art upon Form and its universal nature grounded in being. Through the means of this timeless, nonpersonal essence, art awakens and intensifies the memory of Form lodged within every human soul, making the invisible, visible:

> When a great composition again presents itself, it is as though someone you know well entered the room, someone you still had to see again to know. Because of its unmeasurable qualities it must be heard and again heard.[20]

Therefore, in Kahn's aesthetic theory Form is not only the means–*it is the message, the meaning of his art.*

To render Form visible, he suggested the symbolic image as the vehicle through which a work of art intimates psychic meaning that transcends its own physical presence:

> An architect . . . is an artist in addition to being a professional man. But first let me explain what an artist is . . . Giotto was a great artist because he understood the realm of his art. He wasn't afraid to paint black skies in the daytime, people bigger than a building, birds that couldn't fly and dogs that couldn't run. His people weren't even people . . . but they are in their proper relation for the allegory. . . . They are related story-wise. . . . In the same way, a successful architect must understand his art, must command his medium.[21]

He also explained that symbolic architectural images were intrinsically more subtle and disciplined than images in the

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ılly, p. 115.

ırman and Feldman, *Notebooks and Drawings.*

Laughlin, p. 19. See also, Louis I. Kahn, "Louis
ın, Silence to Light," *Architecture and Urbanism,*
. 73:01, January 1973, pp. 11–19.

ron Goldfinger, *Villages in the Sun* (New York:
ıeger Publishers, 1969), p. 7.

ıis I. Kahn, "Remarks," *Perspecta 9/10,* 1965,
305. See also, H. Ronner, S. Jhaveri and A. Vasella,
uis I. Kahn Complete Works, 1935–74 (Boulder,
lorado, Westview Press, 1977), p. 447.

ıis I. Kahn, personal notebook, K 12/22, c. 1959.

gust Komendant, *Eighteen Years with Architect
uis I. Kahn* (Englewood, N.J.: Aloray Publishers,
75), p. 183.

uis I. Kahn, "Twelve Lines," *Visionary Architects,*
alog to the exhibit, University of St. Thomas,
uston, Texas, 1969, p. 9.

uis I. Kahn, *l'Architecture d'Aujourd'hui,* p. 14.

uis I. Kahn, "Statements on Architecture," *Zodiac*
, 1967, pp. 55–57.

hn Lobell, ed., *Between Silence and Light* (Boulder,
ılorado: Shambhala Publications, Inc., 1979). Louis
hn in the 1973 Pratt Institute Lecture, p. 44:
ıstitution stems from the inspiration to live. This
spiration remains meekly expressed in our
stitutions today. The three great inspirations are the
spiration to learn, the inspiration to meet, and the
spiration for well-being. They all serve, really, the
ill to be, to express. This is, you might say, the
ason for living. All the institutions of man, whether
ey serve man's interest in medicine, or chemistry, or
echanics, or architecture, are all ultimately
ıswerable to this desire in man to find out what
rces caused him to be, and what means made it
ıssible for him to be."

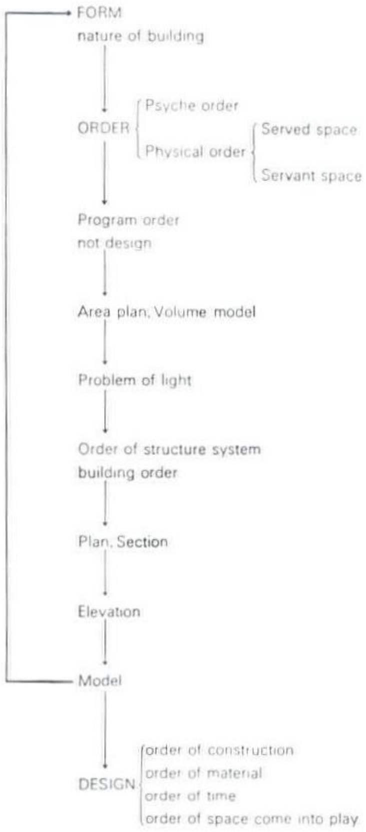
chard Saul Wurman and Eugene Feldman, eds.,
e Notebooks and Drawings of Louis I. Kahn
hiladelphia, Pa., Falcon Press, 1962), p. 5.

ırol E. Kleckner, "Louis Kahn Explains Esthetic
ıeories," *The Philadelphia Inquirer,* 30 August, 1959,
6D.

other arts because of the complex, pragmatic nature of architecture:

> Another aspect (of architecture) is training a man (the architect) *to express himself*. This is his own prerogative. He must be given the meaning of belief, the meaning of faith. He must know the other arts. . . .
>
> The sculptor can place square wheels on a cannon to express the futility of war. An architect must use round wheels ("if he wants to bring his stone from place to place"), and he must make his doorways bigger than people. But architects must learn that they have other rights . . . their own rights. To learn this, to understand this, is giving the man the tools for making the incredible, that which nature cannot make. The tools make a *psychological validity*, not just a physical validity, because man, unlike nature, has choice.[22]

Thus, the architect, according to Kahn, must integrate the symbolic, "psychological" ideas of a work within the physical constraints of structural and functional requirements. He diagramed, in a figure published in 1973,[23] this subtle overlay of the psychic and physical aspects of Order reconciled within his architectural imagery (figure 1).



1
Louis Kahn, diagram of the realization of Form.

Romanticism and the Language of God

Kahn's interest in an allegorical script o intrinsic, universal meaning stems mos likely from a long lived Neoplatonic tradition concerning the Egyptian hieroglyphic.[24] This Graeco-Roman lore reviv by German Romanticism in the late eigh eenth and early nineteenth centuries accounted that the Egyptians had invente writing in the beginning and that their h eroglyphics were visual analogues of th Platonic ideas–reflecting Plato's philoso phy that the phenomenal world, language, and physical beauty are poor copies of the archetypal realm of the ideas–Plato's word "idea" meaning in Greek "form," but *form seen only by the mind's eye*.[25] Six hundred years later Plotinus, the founder of Neoplatonism, wrote in "On the Intellectual Beauty" tha by speaking directly to the mind's eye, th hieroglyphic expressed philosophical co cepts in one intuitive glance and not discursively. Although historically Plotinus, in conjunction with Plato, gave the hieroglyphic its aesthetic-philosophical nuance, Leone Battista Alberti during the Renaissance is credited with helping to establish it in Western art as a universal and timeless iconography. In *Book Eight* of his *Ten Books of Architecture*, a book dealing with ornament, he writes:

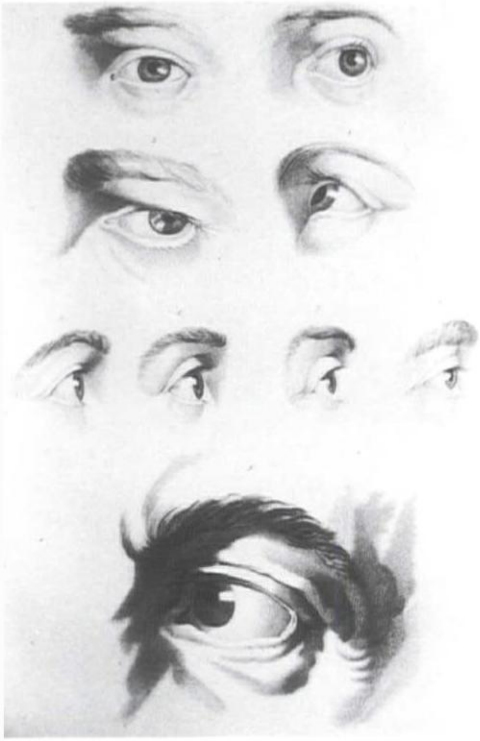
> The Aegyptians employed Symbol in the following Manner: They carved an Eye by which they under stood God; a Vulture for Nature; a Bee for King; a Circle for Time; an Ox for Peace, and the like. And thei Reason for expressing their Sense by these Symbols was, that Words were understood only by the respective Nations that talked the Lar guage, and therefore Inscriptions ir common Characters must in a shor Time be lost; as it actually happened to our *Etruscan* characters: For among the Ruins of several Towns, Castles and Burial-places, I have seen Tomb-stones dug up witl Inscriptions on them, as is generall believed, in *Etrurian* characters, which are like both those of *Greek* and *Latin*; but nobody can understand them: And the same, the Aegyptians supposed must be the Case with all Sorts of Writing whatsoever; but the Manner of expressing their Sense which they used upon these Occasions, by Symbols, they thought must always be understood by ingenious Men of all Na-

[24] George Boas, *The Hieroglyphics of Horapollo* (New York: Pantheon Books, 1950). See also, Liselotte Dieckmann, *Hieroglyphics, The History of a Literary Symbol* (St. Louis, Missouri: Washington University Press, 1970). See also, E. H. Gombrich, *Symbolic Images* (New York: Praeger Press, 1972).

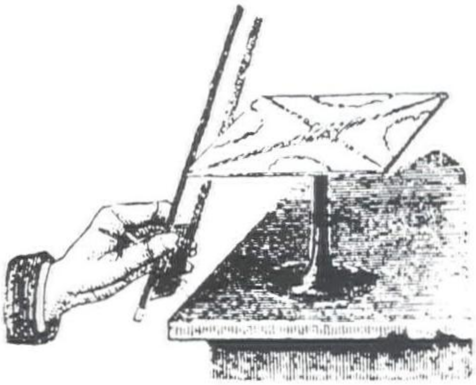
[25] Sir William David Ross, *Plato's Theory of Ideas* (Oxford: Clarendon Press, 1961), pp. 40–43.

[22] Ronner, Jhaveri and Vasella, p. 447.

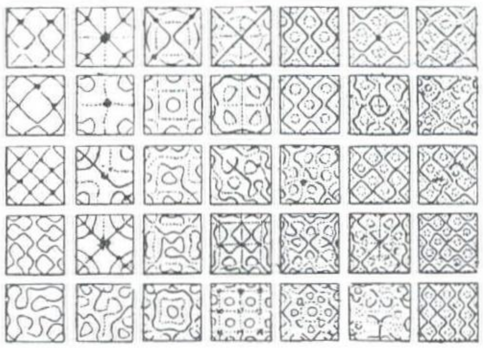
[23] Louis I. Kahn, *Architecture and Urbanism*, p. 47.



2
Johann Casper Lavater, physiognomic studies, 1778.



3
Chladni sound plate vibrated by bow.



4
Chladni figures formed by vibrations of differing wavelengths.

> tions, to whom alone they were of Opinion, that Things of Moment were fit to be Communicated.[26]

Later in the Italian Renaissance, Pico della Mirandola combined the pagan concept of the hieroglyphic with a Christianized form of Jewish mysticism, the *kabbalah*. It was a reunion of sorts as the kabbalah, largely an oral tradition, possesses classical origins associated with Neoplatonism.[27] It taught that God created the material world through the instrumentality of the Hebrew alphabet and according to the *Sepher Yetzira*, a primary document of the kabbalah translated as the *Book of Creation* and sometimes as the *Book of Nature*, God bestowed upon each individual letter a particular form, weight, and number. Through the combinations and permutations of the Hebrew alphabet in the "Word" of God, the origin of all languages as well as the phenomenal world with its living creatures were manifested. Pico believed Hebrew to be the first primitive language of humankind *and of Nature* and that Adam, using this divine language inspired by God, named all of creation in agreement with its manifested inner natures. He also believed that Abraham took this wisdom to Egypt, from which the Egyptians created their hieroglyphics. Thus Moses, learning this pictographic writing from his adopted race, wrote *Genesis*, "The Story of Creation" using a script derived from kabbalah.[28] In the sixteenth century after Pico, especially in Germany,[29] the letters of the Hebrew alphabet and their kabbalistic interpretation also became viewed as "heiroglyphics" inscribed in the *Bible* and throughout nature.

Reviving these earlier mystical interpretations at the end of the eighteenth century, the German Romantics, in revolt against the rationalism of the French-led Enlightenment, again elevated the hieroglyphic to an honored place in modern philosophies of beauty. During this period, it began to lose its Egyptian cast and came to be seen more in the physiognomic light of Romantic natural philosophy, the phenomenal world being identified as a vast, sacred tome, sometimes called the "Book of Nature," filled with natural "hieroglyphics" of God's Word. The analysis of handwriting, phrenology, and the physiognomic studies of Lavater (figure 2), were all understood to be such "signatures" of God's self-expression, as were the physiognomies of the mineral, plant, and animal worlds.[30] Likewise the phenomena discovered by E. F. F. Chladni in 1787 of two-dimensional sound figures left by a vibrating bow when it struck the edge of a fixed plate covered with iron filings (figures 3, 4), were considered to be natural hiero-

8
ieckmann, *Hieroglyphics*.

6
eone Batiste Alberti, *The Ten Books of Architecture*, d. Joseph Rykwert, trans. James Leoni (London: lec Tirante Ltd., 1955) Book VIII, Chapter IV, p. 169.

9
oseph Leon Blau, *Christian Interpretation of the abala in the Renaissance* (New York: Columbia niversity Press, 1944). See also, Frances Yates, *The ccult Philosophy in the Elizabethan Age* (Boston: outledge and Paul, 1979).

7
. Baine Harris, *The Significance of Neoplatonism* Norfolk, Virginia: Old Dominion University Press), p. 14–15. See also, Gersham G. Scholem, *On the abbalah and Its Symbolism*, trans. Ralph Manheim New York: Schocken Books, 1960). See also, Arthur dward Waite, *The Doctrine and Literature of the aballah* (London: The Theophysical Publishing ociety, 1902).

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lexander Gottfried Friedrich Gode-Von Aesch, *atural Science in German Romanticism* (New York: olumbia University Press, 1944), pp. 217–239.

glyphics.[31] Somewhat similarly, the theory of artistic genius formulated by the Romantics is aligned with the idea that the creative artist is a prophet, an expressive instrument enunciating God's Word. As man created in God's image speaks like God through the self-expression of his art and times, the Romantics also believed that the history of man, his religious myths, and sacred literature, could all be interpreted allegorically as hieroglyphics. It was this idea that caused them to investigate traditional forms of human culture and aesthetic expression other than Graeco-Roman ones. They especially delighted in the study of less sophisticated, primitive cultures (chronologically and culturally) seeing them as untainted by too much civilization and being in greater harmony with nature, and hence, God.[32]

German Romanticism was to dominate Western art, as positivism and materialism were to dominate science, during the entire nineteenth century, spreading to England, France, and America. At the end of the nineteenth century, an avant-garde, Neo-Romantic movement, Symbolism, which included the notion of the hieroglyphic, was again in full swing throughout Europe and America, protesting the purely materialistic and rational attitudes of much mid-nineteenth century bourgeois culture based upon the Industrial Revolution. This Neo-Romantic thought contributed fundamentally to the character and development of modern twentieth century art up until the mid-twentieth century.[33] The hieroglyphic also entered the twentieth century through the psychoanalytical theories of Sigmund Freud and C. G. Jung, maturing in an environment strongly stimulated by German Romanticism and its concept of the "unconscious."[34] These early pioneers of a contemporary theory of the human soul interpreted the unconscious material generated by the human psyche as a universal pictorial writing like so many "hieroglyphics." Freud, who based his psychoanalysis of patients upon the interpretation of their dreams, writes in an article entitled "The Philological Interest of Psycho-Analysis":

> I shall no doubt be overstepping common linguistic usage in postulating an interest in psychoanalysis on the part of philologists, that is of experts in *speech*. For in what follows "speech" must be understood not merely to mean the expression of thought in words but to include the speech of gesture and every other method, such, for instance, as writing, by which menta activity can be expressed. . . . Whe we interpret a dream we are simply translating a particular thought-content (the latent dream-thoughts from the 'language of dreams' into our waking speech. In the course o doing so we learn the peculiarities of this dream language and it is borne in upon us that if forms part of a highly archaic system of expression. . . . Another striking feature of our dream-language is its extremely frequent use of symbols, which make us able to some extent to translate the content of dreams without reference to the associations of the individual dreamer. . . . They are in part substitutes and analogies based upon obvious similarities; but in some of these symbols the *tertium comparationis* which is presumably present escapes our conscious knowledge. . .
>
> If we reflect that the means of repre sentation in dreams are principally visual images and not words, we shall see that it is even more appropriate to compare dreams with a system of writing than with a language. In fact the interpretation of dreams is completely analogous to the decipherment of an ancient pictographic script such as Egyptian hieroglyphs. . . . The ambiguity of various elements of dreams finds a parallel in these ancient systems of writing. . . .[35]

Thus, over seventy five years after Champollion's translation of the Rosetta Stone, a long lived philosophical conceit survived and entered the twentieth century still retaining the power of its origin vision–that hieroglyphics embody unchanging psychic essences of aesthetic virtue and share in a universal human lan guage made up of timeless symbolic images.

The Romantic Mysticism of Louis Kahn

In examining Kahn's aesthetic theory pro nounced over the last twenty five years o his life, a close parallel to late eighteenth and nineteenth century Romantic theorie of language and art can be clearly observed. This Romantic tendency was first commented upon by August Komendant in his book, *Eighteen Years with Architect Louis I. Kahn*, where he suggested Schopenhauer as one of the possible influences behind his friend's thought.[36] In trying to locate the origin of Kahn's philosophy and aesthetic theory, the existing evidence strongly supports his mother, Bertha Mendelssohn Kahn, as his tutor and guide into a Romantic world view based largely upon German literary sources. This is suggested by the testimony of his family, friends, and colleagues as well as the evidence of his recorded statements, personal papers, and library. According to his family, Kahn was very close to his mother and throughout her life they spent time together in long conversation. A member of a large family of comfortable means, she was well educated as a young woman, being born and raised upon a large farm outside the city of Riga, the very old capital city of Latvia. The city possessed a population of over 200,000 and a sophisticated Western culture which had been dominated for centuries by aristocratic German, and later, Polish influences. Although the financial stability, advantages, and social prestige of her early life were to change drastically upon her arrival in America, the cultural advantages and ambitions of her more affluent background in Europe were passed on and encouraged in her children.

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[31] Gode-Von Aesch, p. 220.

[32] Eugene Elliot Reed, *The Civilized vs. Civilization, Primitivism in the Literature of German Pre-Romanticism* (Moscow, Idaho: University of Idaho Press, 1978). See also, Harry Levin, *The Myth of the Golden Age in the Renaissance* (Bloomington, Indiana: Indiana University Press, 1969).

[33] Barbara Rose, *American Art Since 1900, A Critical History* (New York: Praeger Publishers, 1968).

[35] John T. Irwin, *American Hieroglyphics* (New Haven, Connecticut: Yale University Press, 1980), p. 213.

[34] Henri F. Ellenberger, *The Discovery of the Unconscious* (New York: Basic Books, Inc., 1970).

A strong Germanic character runs through Kahn's cultural inheritance from his ancestral background. His first spoken language was German, which he probably read.[37] During his upbringing, the family spoke only a "high, hard Berlin German" and some Yiddish at home, a residence located in a poor immigrant neighborhood of North Philadelphia largely made up of transplanted Germans, Lithuanians, and Russians. In this Germanic context, it is important to note the family tradition that Kahn's mother was related to Felix Mendelssohn (1809–1847), the Germanic Romantic composer, as well as the composer's famous grandfather, Moses Mendelssohn (1729–1786), the distinguished Jewish philosopher of the German Enlightenment. The family interest in music, with its implied Mendelssohnian tradition linked to Romantic Germany, ran deep and still does in its survivors. Bertha Kahn was a gifted musician, a harpist, and was credited by her son for his own developed appreciation and knowledge of music. He often used musical analogies in presenting his architectural thought, apparently the result of his training at home.
It was in this German speaking environment that Kahn evidently learned of German Romantic thought, revived in the Neo-Romanticism of the late nineteenth century of avant-garde Europe and America. Mrs. Kahn was well-read, having studied literature as well as music as a girl; she continued to read a great deal, especially German literature studied in the original German. As family members attest, Goethe and Schiller were her favorite authors. Esther Kahn described her mother-in-law as an "expert upon Goethe" and also recalled Mrs. Kahn's literary interest in Nietzsche. William Huff, an office member, remembered that Kahn said his mother had "raised him upon Goethe." In a statement regarding his mother and Goethe, Kahn seemingly expressed the philosophical and literary character of his upbringing:

> I'm only reading Goethe now because I have a great reverence for a person who loved Goethe, and because I love this person I had to read it. Before this I struggled to read Faust page by page. I met Faust for the first time and discovered a wonderful thing: that Gretchen was more soul than body, that Faust was a balance between body and soul, and Mephistopheles was really all body, the body of man. He had no soul. Two people can't have the same sense of soul. The singularity is a soul and a body, though I believe that soul is a prevalence and that soul is the same in all, no different in anyone. The only difference is the instrument, our body, through which we express desire, love, hate, integrity, all the measurable qualities of soul.[38]

Evidently, Kahn's "raising" by his mother was one where he was taught the philosophical principles of this great German poet/philosopher/scientist whose Neoplatonic thought and natural philosophy played an important role in forming the idealistic and mystical visions of the pioneer of German Romanticism.[39]

In addition to the strong German cultural current running through Kahn's background, a form of Jewish mysticism, most likely the kabbalah, appears to have come from this same maternal source. According to a story that Kahn told William Huff, his maternal grandfather, Abrahm Mendelssohn, was a "famous," well-beloved Jewish mystic and spiritual healer in Riga. Kahn reported that the entire city of Riga, Christian and Jew alike,

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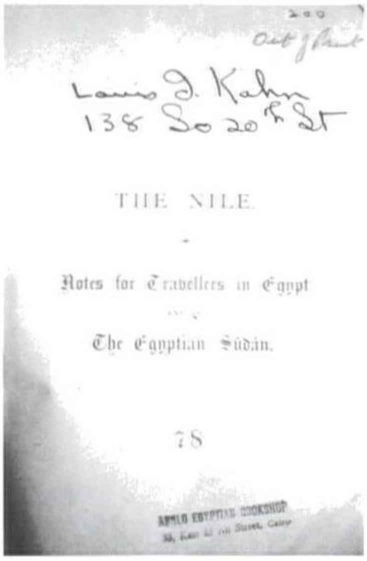
36
Komendant, p. 23.

7
ccording to Esther Kahn, several books printed in erman in Kahn's personal library were gifts from his other who read German. These literary gifts uggest that he did read German at one time.

8
onner, Jhaveri and Vasella, p. 330.

9
selotte Dieckmann, *Johann Wolfgang Goethe* (New ork: Twayne Publishers, Inc., 1974), p. 45.



Out of Print

Louis I. Kahn
138 So 20th St

THE NILE

Notes for Travellers in Egypt

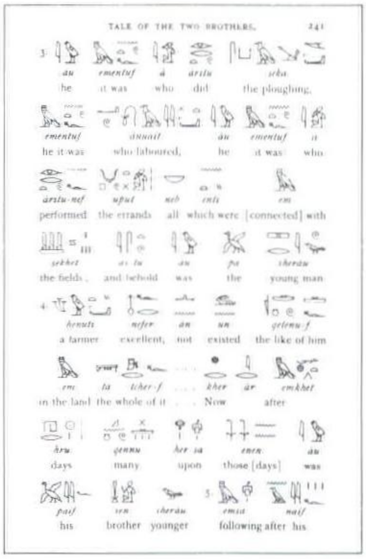
The Egyptian Sûdân.

78

APOLLO EGYPTIAN BOOKSHOP

5
E.A. Wallis Budge, *The Nile*,
Kahn's personal copy.

had expressed their esteem for his mystic grandfather by burning candles in their windows on the evening of his death. He also told Huff, as well as Anne Griswold Tyng, that in Philadelphia his mother was considered the neighborhood counselor and "wise woman." They also related that Kahn said his mother had received a "healing secret" from her father at his deathbed which was to be revealed to Kahn on her own deathbed. Unfortunately, Kahn arrived in California from the East coast one hour after his mother's passing in 1958, never learning this promised secret. His sorrow about this tragic timing is probably part of the reason that Kahn broke his usual silence and revealed the mystical background of his inner life to members of his office.



TALE OF THE TWO BROTHERS. 241

3 *au ementuf à àritu seka*
he it was who did the ploughing.

ementuf ànnait àu ementuf à
he it was who laboured, he it was who

àritu-nef uput neb entu em
performed the errands all which were [connected] with

sekhet as tu àu pa sherau
the fields, and behold was the young man

4 *henuti nefer an un qetennu-f*
a farmer excellent, not existed the like of him

em ta tcher-f . . . . kher àr emkhet
in the land the whole of it . . . . Now after

hru qennu her sa enen àu
days many upon those [days] was

paif sen sherau 5 *emsa naif*
his brother younger following after his

6
Translation of Egyptian
Hieroglyphs from *The Nile*.

Architecture as Logos

Considering his mother's deep-seated interest in German literature and her close relationship with her son, it seems reasonable that Kahn became acquainted with the Romantic mysticism of much eighteenth and nineteenth century German literature through her and not via English and French derivations. However such typical Romantic concepts entered his thought, they closely resemble the ideas that his mother would have known from her literary pursuits and her father's mysticism. For example, Kahn's primary notion of Form is like Plato's theory of the ideas, also well known in English by the term "Forms," as well as "Ideas."[40] His use of the word betrays a German origin. "Form" was preferred by Schiller to express ideal, abstract concepts instead of *gestalt*, which in German means "physical configuration, pattern, or shapes."[41] Nowhere is the Romantic nature of Kahn's thought made more evident than in his belief that Form manifests itself in the phenomenal world as the hieroglyphics of primitive languages, the *Bible*,[42] history, nature, psychology, and art. Proof of this Romantic belief is made explicit in his architecture by literal quotations of these notes from *Volume Zero*.

The Egyptian Hieroglyphics

There are several books in Kahn's library which demonstrate his interest in primitive (both chronologically and culturally) pictographic scripts, especially ones that deal with the interpretations of Egyptian hieroglyphics. The two most important of these being *The Nile*, an old travel guide of 1912 by an important early Egyptologist at the British Museum in London, E. A. Wallis Budge, and *The Pyramids of Egypt* by I. E. S. Edwards, also a noted Egyptologist of the British Museum. *The Nile*, a long favored book of Kahn's, according to his wife, was ornamented with a beautiful cover of golden hieroglyphics. Judging from the bookdealer's stamp on the title page (figure 5), he evidently purchased the book in Egypt in 1951 while acting as a tour guide to members of the American Academy in Rome where he was a resident professional.[43] Budge's book is full of diverse and admirable information and illustrations and presents a wealth of hieroglyphics translated into English. For example, it renders into English: archaic tales (one of these was bookmarked by Kahn, figure 6), hymns and prayers to the gods, and the names of Egyptian gods and Pharaohs. It includes various hieroglyphic lists dealing with particular subject matter, for example, celestial objects, objects of earth, objects of water, building types, parts of the body, animals, birds, fish, etc. Perhaps most interesting from a Romantic point of view, *The Nile* presents the phonetic equivalents of the English alphabet in hieroglyphics and Hebrew, thus uniting in a chart those intermingled traditions of the original divine language of man (Adam), Hebrew, and its first script, hieroglyphics. Several of his books compare other primitive scripts to the Egyptian one. For example, *The Nile* compares them to Chinese pictograms, *Egypt and Its Monuments*,[44] compares them to Mexican Indian picture

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[43] ***American Academy in Rome Report 1943–1951*** **(New York: Spiral Press, 1951), pp. 17–20.**

[40] **Ross, p. 41.**

[41] **Friedrich Schiller, *On the Aesthetic Education of Man*, eds., F. M. Wilkinson and L. A. Willoughby (Oxford: Clarendon Press, 1967), pp. 308–310.**

[42] **"The Architectural Metaphysics of Louis I. Kahn," *New York Times Magazine*, 15 November 1970, p. 78. Kahn: "I regard the *Bible*, like other religious writings as a well-source of art."**

[44] **E. A. Budge, *The Nile, Notes for Travellers in Egypt and the Egyptian Sudan*, 12th ed. (London: Thomas Cook and Sons, 1912); Francis Lister Hawks, *Egypt and Its Monuments* (New York: Putnam, 1850).**

nese picture writing and
er conventional characters
m Hutton Webster, *Early
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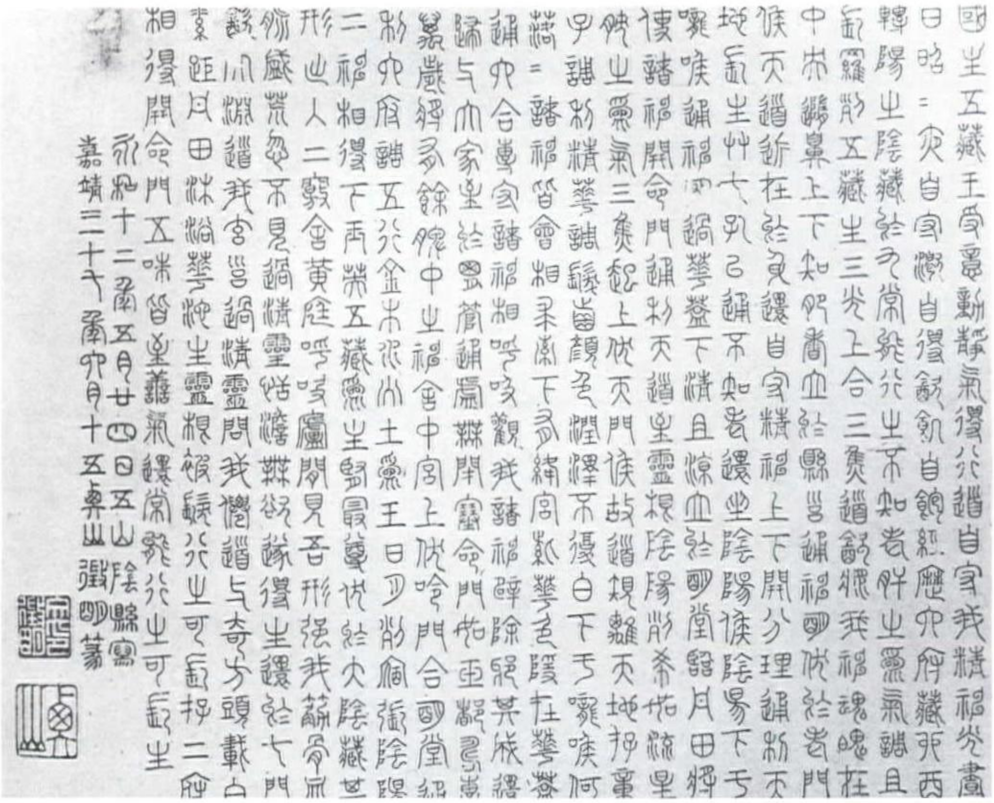
stration from Joseph Epes
wn, *The Sacred Pipe*.

stration from Tseng Yu-ho
e, *Chinese Calligraphy*.



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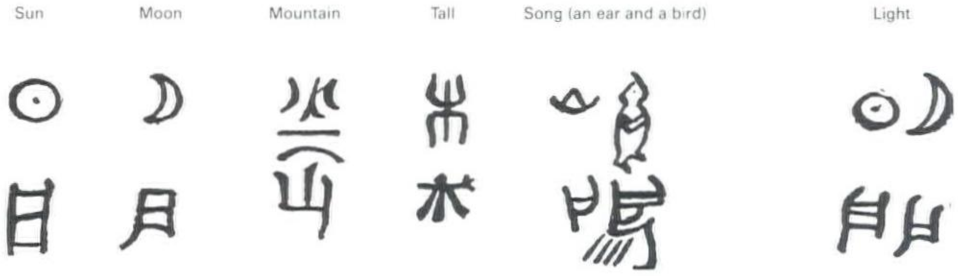

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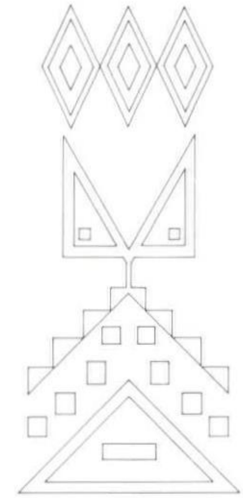

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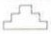
writing, while *Early European History*,[45] does both (figure 7), in a section concerning Writing and the Alphabet of a chapter entitled, "The Ages before History." Kahn's own collection of books dealing with primitive pictographic scripts seems to follow similar comparative lines. Most impressive of these is an 1883 edition of the *Fourth Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institute*. This beautiful book is copiously illustrated with hieroglyphic-like writing and translations of various American Indian tribes. He also owned another book, *The Sacred Pipe*, dealing with the subject of American Indian culture and its pictograms (figure 8).[46] Further afield in this subject of hieroglyphic-like scripts was a book entitled *Chinese Calligraphy* (figure 9). In keeping with this apparent Romantic taste for primitive forms of transmitting information was a special 1972 edition of *Scientific American* devoted to the topic of communication; its cover displayed a photograph of a hieroglyphic inscription from an ancient stele with a translation inside.[47] The subjects broached by this special issue were: cellular communication, animal communication, verbal communication, communication and the community, communication and the social environment, as well as an article by E. H. Gombrich, the eminent British Art Historian, discussing graphic communication. Gombrich provided an illustration of an ancient Egyptian hieroglyphic which had survived as a symbolic image into the present age. This small collection in Kahn's personal library apparently expresses his continued interest in primitive forms of writing and their ability in certain instances to persist and communicate over long periods of time upon a collective basis.

**ton Webster, *Early European History* (New York:
. Heath & Co., 1917).**

**ng Yu-ho Ecke, *Chinese Calligraphy* (Philadelphia:
adelphia Museum of Art, 1971).**

**ph Epes Brown, *The Sacred Pipe, Black Elk's
ount of the Seven Rites of the Oglala Sioux*
man, Oklahoma: University of Oklahoma Press,
).**

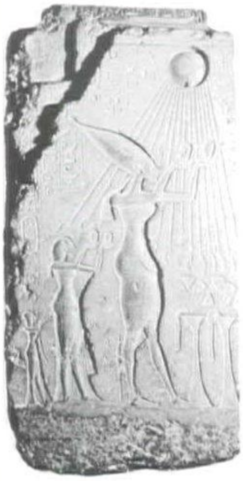
The philosophical importance of the hieroglyphic in Kahn's work is best demonstrated by I. E. S. Edwards' book, *The Pyramids of Egypt*. Kahn's edition, copyrighted 1952, was a gift from his daughter, Sue, Mrs. Kahn remembered, soon after his return from Egypt in the early 1950s. In the chapter, "Construction and Purpose," of his book, Edwards gives the ancient hieroglyphic for the pyramid, , translated as "the castle of eternity," as well as a variant for the older stepped pyramid, , translated as "the place of ascension." He also explained that the iconographic meaning of the pure pyramid had always been symbolic of the sun in Egypt, even during the most primitive times:

> But what did the *benben* (the primitive stone fetish of pyramidal shape) and its architectural derivative, the true pyramid, represent? Only one answer suggests itself: the rays of the sun shining down on earth. A remarkable spectacle may sometimes be seen in the late afternoon of a cloudy winter day at Giza. When standing on the road to Saqqara and gazing westward at the Pyramid plateau, it is possible to see the Sun's rays striking downwards through a gap in the clouds at about the same angle as the slope of the Great Pyramid. The impression made on the mind by the scene is that the immaterial prototype and the material replica are here range side by side.[48]

Of this emblematic explanation, Edwards may also have had in mind the similar solar iconography found in the later Armarna period (figure 10). Edwards also explained that the symbolic form of the pyramidal tomb, , "the castle of eternity," had a practical magical purpos for the soul of the dead Pharoah, serving as a solar ladder to the bright god above. Quoting ancient magic spells, he writes:

> The Pyramid texts often describe the king as mounting to heaven on the rays of the sun. Spell 508 of these texts, for instance reads: 'I have trodden those thy rays as a ramp under my feet whereon I mount up to that my mother, the liv ing Uraeus on the brow of Rē.' The temptation to regard the true Pyramid as a material representation of the Sun's rays and consequently as a means whereby the dead king could ascend to heaven seems irresistible.[49]

His reading of the pyramid as a solar stai is probably influenced by his similar interpretation of the stepped pyramid, , "the place of ascension," upon which the Pharaoh's soul was to make its way to the gods. He also suggested that this built icon is similar in significance to the ziggurats of ancient Mesopotamia an



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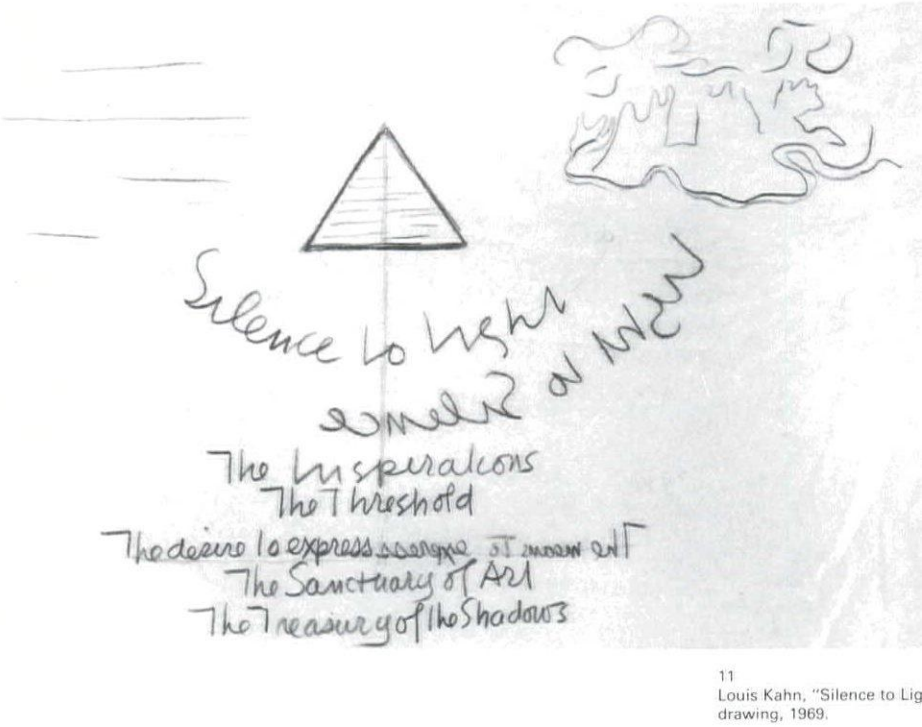
Egyptian stone relief.



11
Louis Kahn, "Silence to Lig
drawing, 1969.

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[48] I. E. S. Edwards, *The Pyramids of Egypt* (New York: Penguin Books, 1952), pp. 289–290.

[49] Edwards, p. 291.

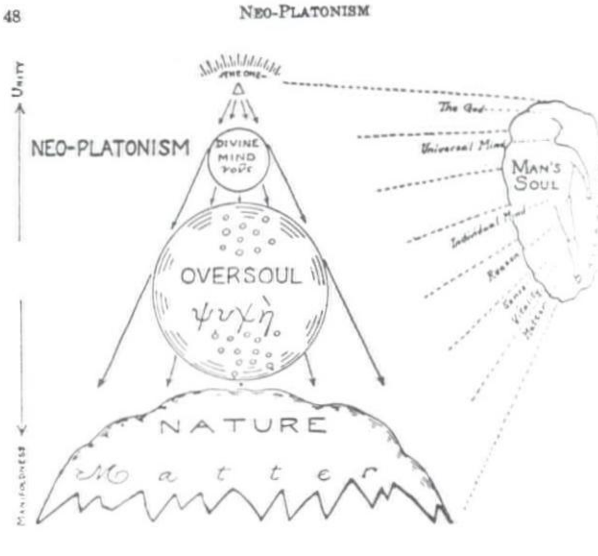
the historical Tower of Babel where they were considered to be a link between heaven and earth.

As an ancient expression of light, the image of the pure pyramid, with its two dimensional hieroglyphic, △, appears to have best symbolized Kahn's conception that Form manifests into the material universe as a kind of "inspired writing." The pyramidal shape, as revealed in his "Silence to Light" diagrams, circa 1969 (figures 11), spells out in two and three dimensional hieroglyphics his sense of Order and the manifestation of Silence in time and space as Light. Of this three dimensional emblem, he said:

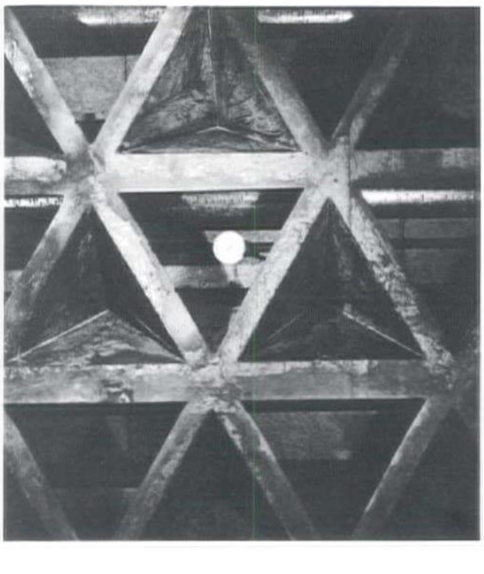
> The pyramids seem to want to tell us of its motivations and its meeting with nature in order to be. I sense Silence as the aura of the 'desire to be to express' Light as the aura 'to be to be' material as 'spent light' (The mountains the streams the atmosphere and we are of spent light.)[50]

Kahn's associating Edwards' solar explanation of the pyramid with his world view is in keeping with a Neoplatonic cosmology where traditionally the sun has served as the manifest image of the deity.[51] This *Weltanschauung*, also known as the "Great Chain of Being,"[52] was delineated by Kenneth Walter Cameron (figure 12), in a published study, *Emerson the Essayist*, where he traced the important influence of Goethe and the German Romantics upon the Neoplatonism of American Transcendentalism.[53]

It is with his discovery of the pyramid hieroglyphic, circa 1952, that the birth of Kahn's mature architectural creativity apparently began. This interpretation supports and complements Vincent Scully's late 1970s observation that the mastery of Kahn's architecture really begins with his Egyptian journey in 1951.[54] In 1978 while studying Kahn's travel sketches, many devoted to renderings of the Pyramids, Scully noted the overpowering influence of the pyramidal form in Kahn's early mature work at the Yale Art Gallery, completed in 1953, with its hollow coffered tetrahedral ceiling (figures 13, 14), and the Trenton Bath House, completed in 1956, with its four pyramidal roofs. The imagery of the pyramid can be found in Kahn's constructions throughout his mature career, from its beginning at the Yale Art Gallery, as Scully has observed, to the very last major completed work of 1977 across the street at Yale, the Center for British Art. Here the pyramidal form, following the logic of a "solar hieroglyphic," appears most obviously where one would expect it to be, in the natural light fixtures which scientifically modulate the entrance of sunlight through the roof into the building. In an interior perspective of the building, Kahn gave these natural light fixtures the symbolic shape of a truncated pyramid made up of smaller pure pyra-



12
Kenneth Walter Cameron, *Emerson the Essayist*, diagram of Neoplatonism.



13
Louis Kahn, Yale Art Gallery, New Haven, 1953, tetrahedral ceiling.

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nneth Walter Cameron, *Emerson the Essayist*
artford: Transcendental Books, 1972), p. 48.

ncent Scully, Jr., *The Travel Sketches of Louis I.*
hn (Philadelphia: Pennsylvania Academy of Fine
ts 1978), pp. 10–12.

urman and Feldman, *Notebooks and Drawings.*

seph B. Collins, *Christian Mysticism in the*
abethan Age (Baltimore: Johns Hopkins Press,
0), pp. 8–9.

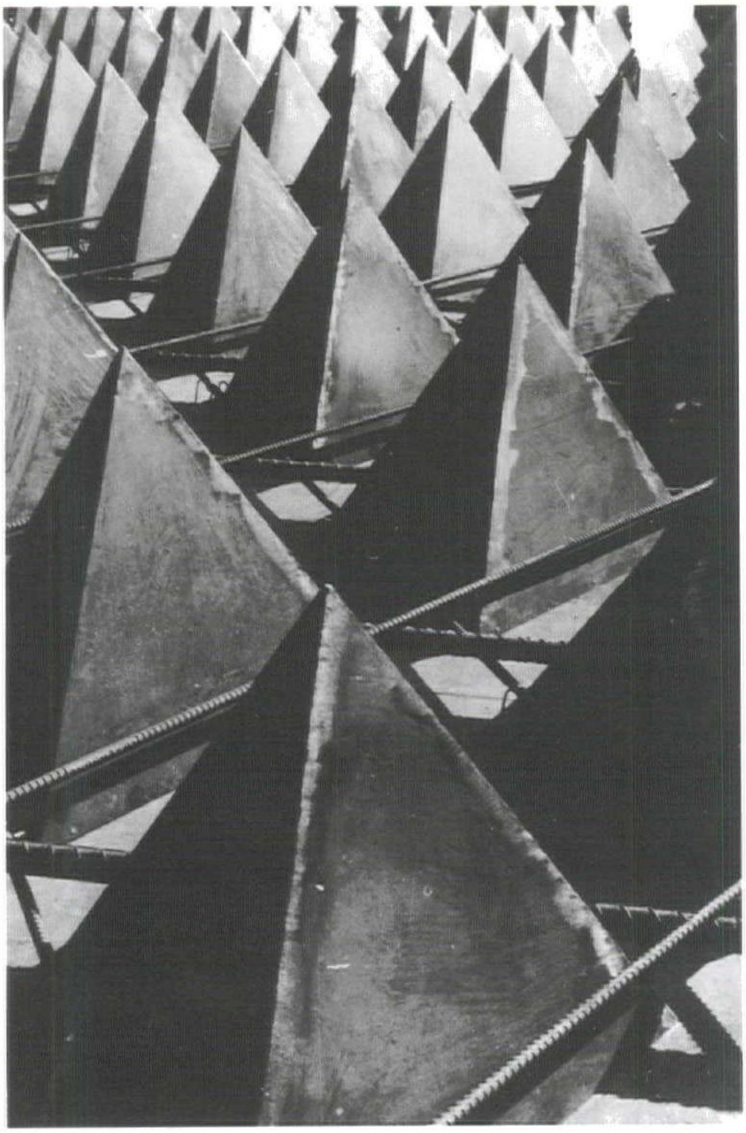
hur O. Lovejoy, *The Great Chain of Being*
mbridge: Harvard University Press, 1976).

14
Yale Art Gallery, steel formwork for tetrahedral reinforced concrete slab.

15
Louis Kahn, Yale Center for British Art, New Haven, 1977, sketch of interior library court.

16
Yale Center for British Art, skylight mock-up model.

17
Louis Kahn, Washington University Library, St. Louis, 1956, sketch.



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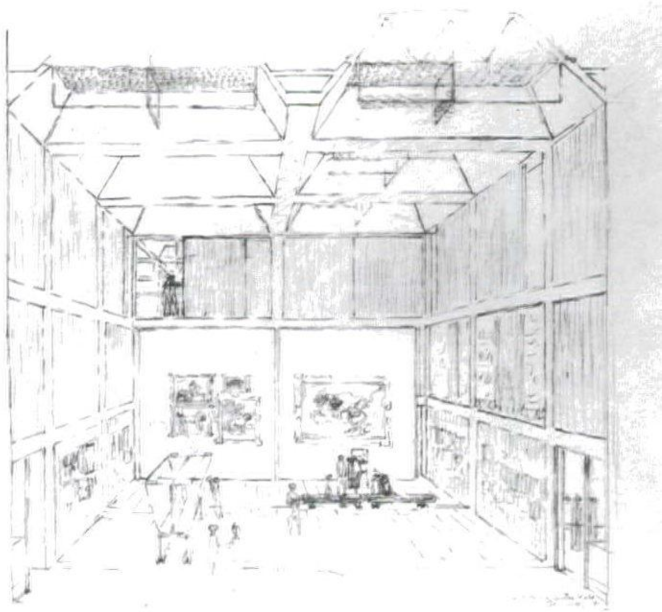

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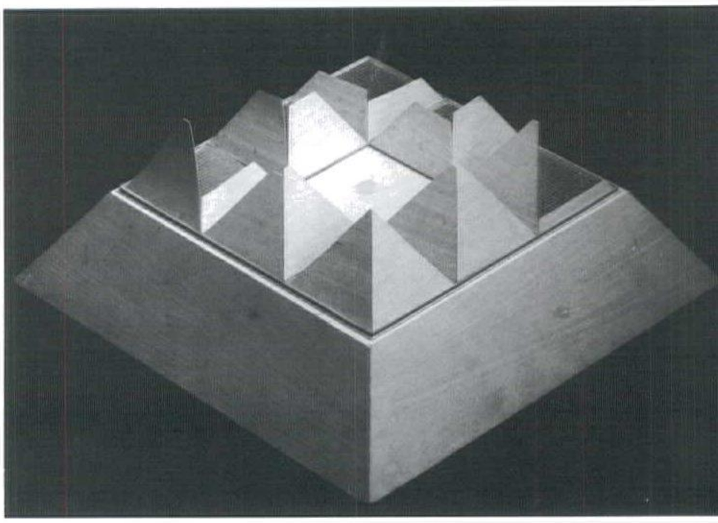

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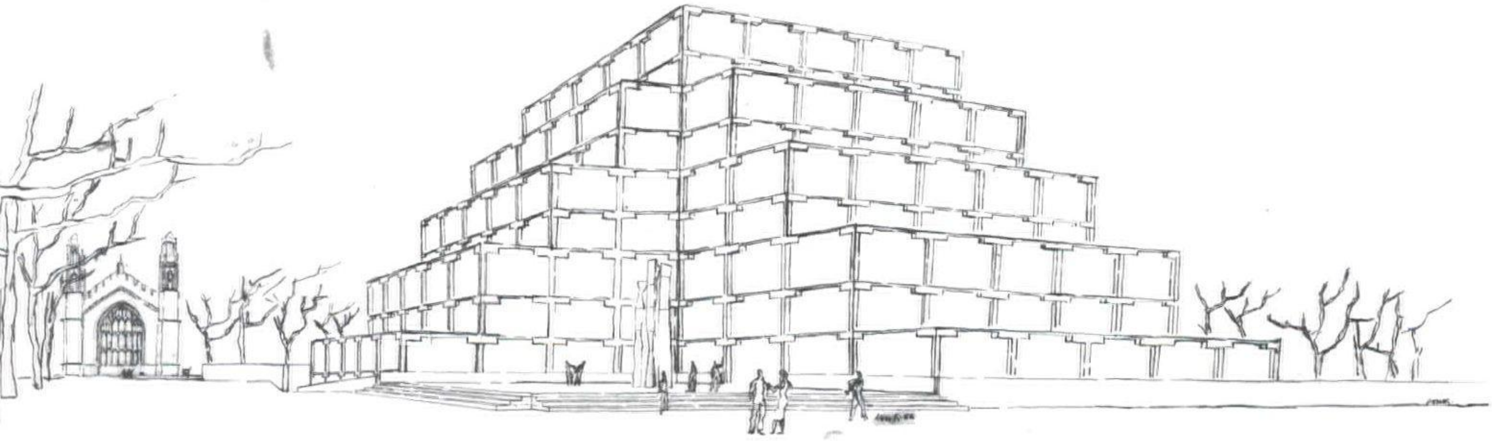
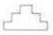


mids (figures 15, 16). This is in accordance with the authority of the Egyptian iconography he knew, for one reads in *The Nile* that the truncated pyramid was also an emblem of the sun:

> . . . The sun-symbol here represented (the ben-ben) suggests that the earliest worshippers of the sun believed that their god dwelt in a particular stone of pyramidal shape. At a later period, when perhaps their descendants in other parts of the country could not find a stone of similar shape, a stone in the form of a truncated pyramid was adopted as a symbol of the Sun.[55]

Kahn's interest in the Egyptian hieroglyphic is also seen in his use of the stepped pyramid pictograph, , "the place of ascension," which Edwards had described in his book on the pyramid. In Kahn's unbuilt projects for the Washington University Library of 1956 (figure 17), and the Theological Library at Berkeley, 1973–74 (figure 18), one finds this hieroglyphic "quote" literally produced three dimensionally in cruciform plan and and in a "wedding cake" composition, respectively. These designs for two institutions devoted to the pursuit of learning were truly to be "places of ascension" of the human mind and its aspiring spirit, an idea especially apt in the context of a theologian's library.

Because of its Romantic fusion with the hieroglyphic and the mysticism of Kahn's maternal genealogy, it is useful to look at the kabbalah for potential Hebraic "signatures" which Kahn might have inscribed in his work, for example, in the synagogue projects for Mikveh Israel and the earlier Adath Jeshurun. According to the kabbalah, which means "tradition," God possesses a limitless nature which has many countenances and names. He manifests himself through ten aspects called "sephiroth" forming the kabbalist Tree of Life (figure 19), which is similar in kind to the Great Chain of Being of the Neoplatonists. One of Kahn's diagrams of the descent of Psyche into matter (figure 20), closely resembles this traditional kabbalistic conception. Although the Hebrew God has many expressions and names, the kabbalists assert that all of creation is summarized in one "great name," Yod Heh Vav Heh, meaning "That which was, is, and shall be." The great name is not peculiar to Jewish thought alone, classically, it was used to describe pagan gods, and Kahn often expressed a similar variation of it in his definition of art, "the language of God:"

> The artist senses human validity. Validity transcends time. What *is* has always been. What *was* has always been. What *will be* has always been.[56]

However this may be, Kahn's projected plan for the congregation of Mikveh Israel, 1961–70 (figure 21, 22), appears most likely to be a kabbalistic image of the Tree of Life. A member of his office, Vincent Rivera, has proposed that the plan of Mikveh Israel is patterned after this Hebraic cipher seen on a cover illustration (figure 23), of a book that Kahn owned, now no longer in his library. A similar visual comparison has also been suggested by Jeff Keiffer. Despite the fact that he was not sure of the book's title, Rivera clearly recalled the cover illustration depicted upon a red ground, and remembered meaning to ask Kahn if the

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7

5
udge, p. 521.

6
ook and Klotz, p. 180.

e early paperback editions of *Major Trends in* *wish Mysticism* had such an illustration printed on ed ground. The title Rivera could not remember uld likely have been the one of Scholem's book.

18
Louis Kahn, Theological Library at Berkeley, sketch.

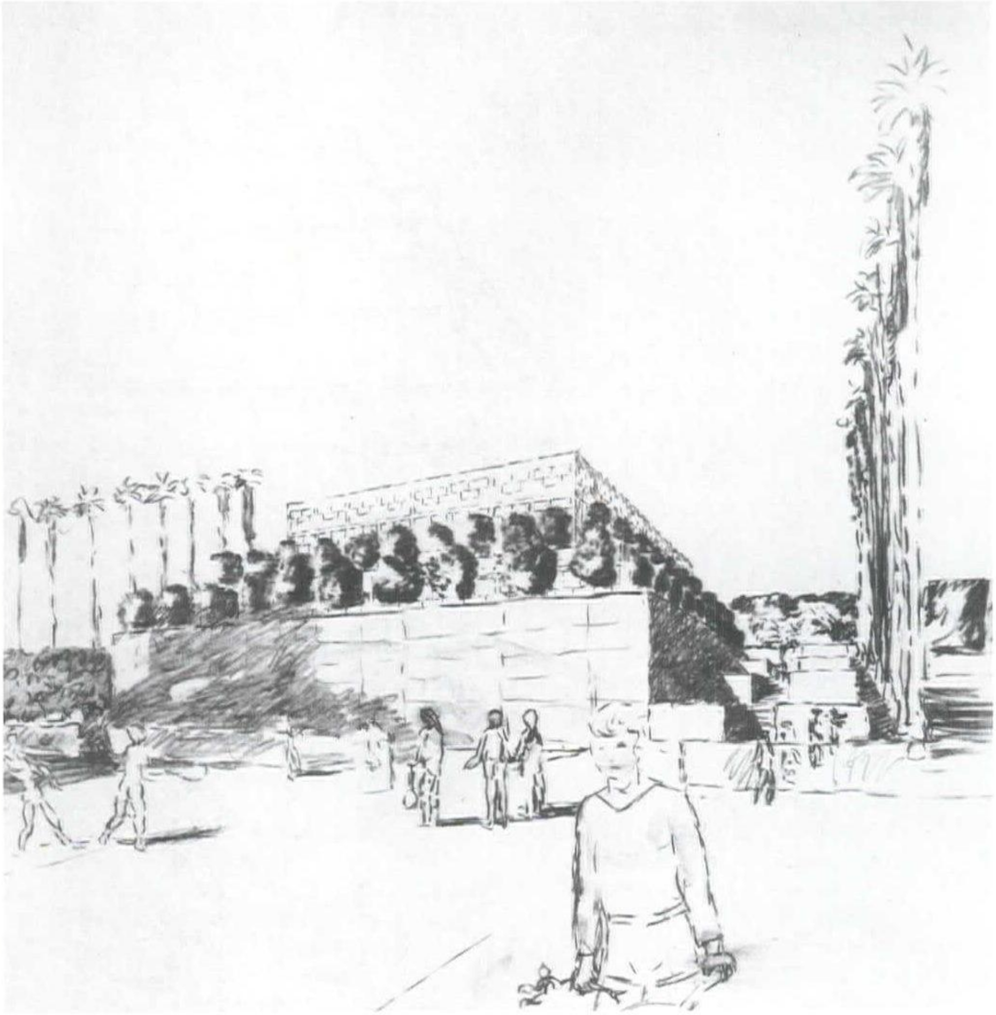
19
The Sephirothic Tree of the Later Kabbalists, after Kircher, *Oedipus Aegyptiacus*, Rome, 1652.

20
Louis Kahn, diagram of the descent of Psyche into Matter.

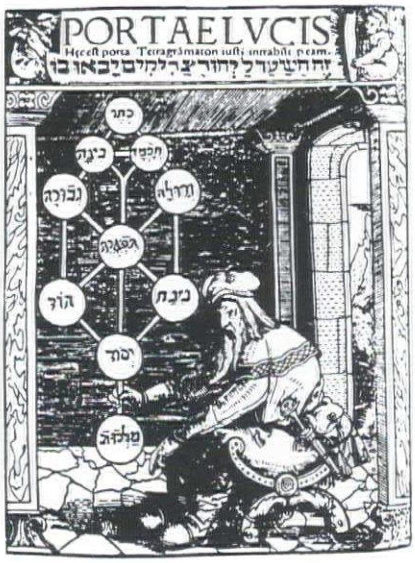
21
Louis Kahn, Mikveh Israel Synagogue, Philadelphia, ground floor plan.

22
Mikveh Israel Synagogue, model.

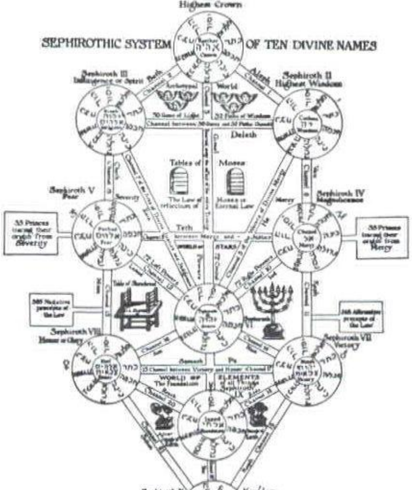
23
The Sephirothic Tree from Paulus Ricius, *Porta Lucis*, Augsberg, 1516.



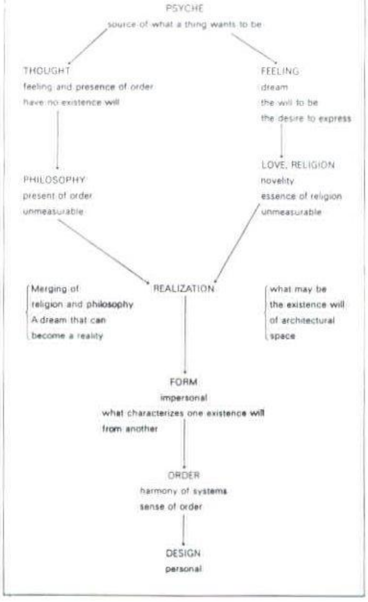
18


PORTAELVCIS
Hæc est porta Tetragrammaton iusti intrabūt p eam.

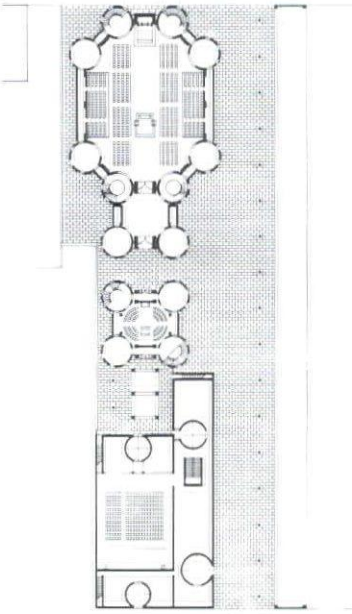
23


HORIZON OF ETERNITY
Sephiroth First
Highest Crown
SEPHIROTHIC SYSTEM OF TEN DIVINE NAMES
Sephiroth III
Sephiroth II
Highest Wisdom
Archetypal World
Deleth
Tables of Moses
Sephiroth V
Fear
Severity
Sephiroth IV
Magnificence
Mercy
Teth
STARS
Table of Shewbread
Sephiroth VIII
Honor or Glory
Sephiroth VII
Victory
WORLD OF The Foundation
ELEMENTS
Sephiroth X
Kingdom

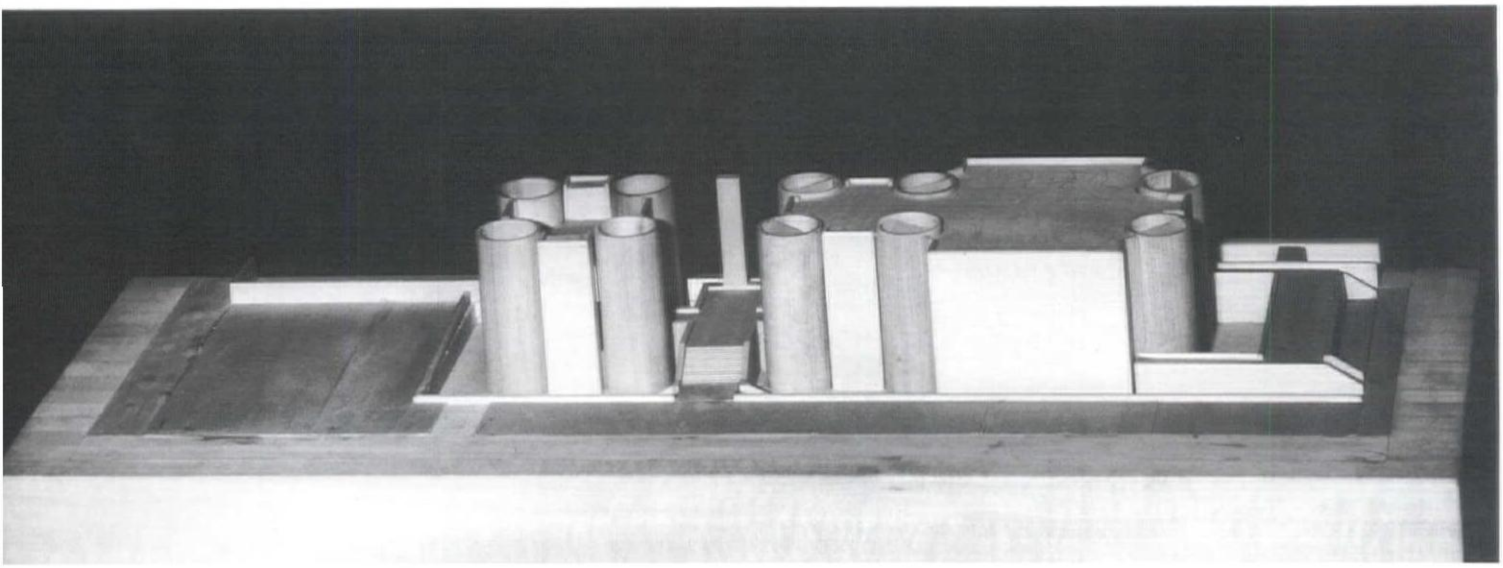
19


PSYCHE
source of what a thing wants to be
THOUGHT
feeling and presence of order
have no existence will
FEELING
dream
the will to be
the desire to express
PHILOSOPHY
present of order
unmeasurable
LOVE, RELIGION
novelty
essence of religion
unmeasurable
Merging of
religion and philosophy
A dream that can
become a reality
REALIZATION
what may be
the existence will
of architectural
space
FORM
impersonal
what characterizes one existence will
from another
ORDER
harmony of systems
sense of order
DESIGN
personal

20



21



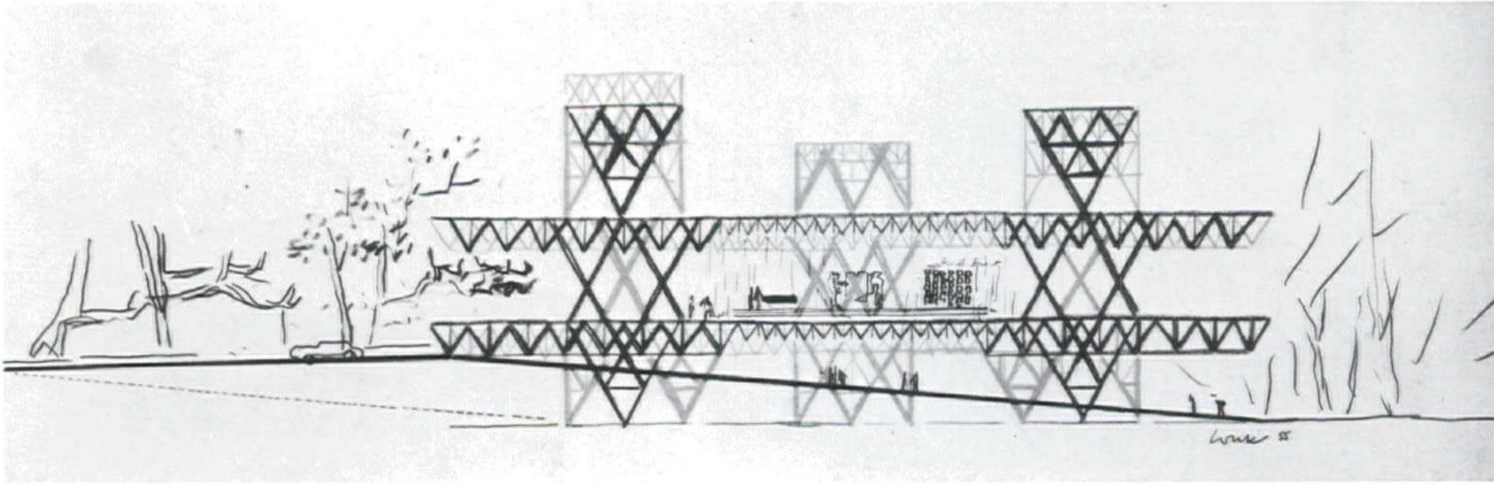
3
onner, Jhaveri and Vasella, p. 81.

striking similarity was intentional when seeing it in the office while Mikveh Israel was being designed. This rendering of a Hebrew sage in contemplation grasping a Tree of Life, as Rivera described it, "like a bunch of balloons," exemplifies the kabbalistic process of returning to God, up the Tree, sephiroth by sephiroth, through meditating upon the various names of Jehovah. This mystical odyssey also parallels the Neoplatonist's "flight to the One" via the "hieroglyphics" of beauty along the Great Chain of Being. Appropriately enough, Kahn seems to have envisioned Mikveh Israel as a "place of ascension," for according to Ezekial Musleah, the rabbi of the congregation during the period of the design, Kahn described the cylindric stair towers of the plan as "columns, like the Tower of Babel aspiring to God." Rabbi Musleah did not find this idea apt, recalling the Biblical account of where the first language of man was confounded into a plethora of unshared speech. Kahn, however, appears to have been thinking of I. E. S. Edwards' comparison of the Egyptian stepped pyramids with the ziggurats of Mesopotamia and the Tower of Babel. Like the towers, the entire plan as a Tree of Life signifies a "place of ascension." For as the congregation of Mikveh Israel would move forward into the sanctuary to worship the names of Jehovah, they would make, allegorically and physically, a mystical return to God through this architectural Tree of Life. In his unbuilt design of 1954 for the congregation of Adath Jeshurun, Elkins Park, Pennsylvania (figure 24), Kahn seemed to be trying to create a similar but more abstract place of ascent, for he used the metaphor of a tree to describe this tetrahedral space slab supported by three column clusters of nine columns:

> Each column cluster harbors a stairway as though captured in a great hollow trunk. The columns thus spread grip the floor and roof structure like outspread fingers.

It is what the space wants to be: a place to assemble under a tree.[58]

These three trunks of Adath Jeshurun are suggestive of the three supernal sephiroth of the Tree of Life, philosophically similar to the Neoplatonic concept of a triune deity. The Neoplatonic deity like the Hebrew God manifests himself physically as the sun and is symbolized by Kahn's use of the two dimensional solar hieroglyphic, △, "the castle of eternity." Like the Tree of Life sprouting from heaven, sephiroth to sephiroth, the remainder of the spaces of the sanctuary were to unfold and again unfold from the three trunks. These stair towers, like those of Mikveh Israel later, apparently are architectural sephiroth, by reason that they are rooted in the great name, Yod Heh Vav Heh, found written in its numerical form (26) in the side dimensions of 26 feet of the triangular column clusters. This is in agreement with the kabbalistic process of gematria: Yod = 10, Heh = 5, Vav = 6, hence Yod Heh Vav Heh = 10 + 5 + 6 + 5 = 26. Whether or not this kabbalistic reading is merely a happy coincidence, it is in accordance with the Romantic tradition of the language of God and the reported Jewish mysticism of Kahn's family.



24

Human History as Hieroglyphic

Kahn's special interest in these historic hieroglyphics reflects a strong Romantic predilection for things primitive. He explained:

> [the] . . . primitive case is more of an indication of value than the sophisticated case. To accept something at the very, very beginning, without precedent is an infinitely stronger statement than how it is extended in later years.[59]

> . . . because I know . . . that the beginning is . . . an eternal confirmation . . . If man's nature would not approve, a beginning would be impossible. So beginning is a revelation which reveals what is natural to man–it never would have happened. What the human approves–human as a larger term for man, instead of man simply as the species–is natural to all humans. . . .[60]

Similarly, while discerning *Volume Zero* between the lines of these man-made allegorical images, he seems to have been interpreting history Romantically, literally as so many hieroglyphics.[61] He summarized his architectural conviction to maintain traditions which reflect humankind at its most characteristic:

> The works of man reveal his nature.

> The time of a work holds its own validity from which the sense of truth can be drawn to inspire a work of another time.[62]

Physiognomic Hieroglyphs
Along with his books on primitive scripts, Kahn owned several other significant "chapters" from *Volume Zero* filled with natural hieroglyphics, one of these being D'Arcy Thompson's *On Growth and Form* His attraction to the natural forms described by Thompson is well confirmed, for example by his nephew, Dr. Marshall Alan Kahn, and William S. Huff. Dr. Kahn remembered that his uncle told him that i a person could read only one book in his life, it should be *On Growth and Form*. Although it simultaneously implies the realm of "Silence," Kahn's concept of *Volume Zero*, the "unwritten" book before al books, smacks of the Romantic's *Book of Nature* and probably explains his respect for D'Arcy Thompson's book, a natural lexicon of Form. Huff says that Thompson, quoting Plato, had written "God always geometrizes" and suggests that Kahn most likely felt that an architect should do the same. Huff also remembered that Kahn had a similar interest in Chladni music forms, which Thompson had also mentioned (figures 3, 4), and believed that they possessed a "cosmic significance," a view shared by the natural philosophers of German Romanticism. Kahn owned a book by William T. Bartholomew, *Acoustics and Music*, which depicts a selection of Chladni's music forms and was signed by him inside the cover, an indication of its importance to him. (Kahn rarely signed his books unless he especially wanted to keep them and was afraid of losing them, as he was generous to a fault in loaning them to others.) The pure geometries of God's Word, such as the *Lithocobus geometricus* exhibited in Thompson's book (figure 25), and the Chladni figures of Bartholomew's book (figure 26), are often found fluently enunciated in Kahn's designs, for example in

59
Wemischner, p. 3.

60
McLaughlin, p. 20.

61
Ronner, Jhavari and Vasella, p. 448. Kahn: ". . . Tradition is just mounds of these circumstances, you see, the record of which is also a golden dust from which you can extract the nature of man: which is tremendously important if you can anticipate in your work that which will last–that which has a sense of commonness about it, and by commonness I mean essence of it. When you see the pyramids now, what you feel is silence. As though the original inspiration of it . . . the motivation that started that which made the pyramid is nothing but simply remarkable. To have thought of this shape personifying a kind of perfection, the shape of which is not in nature at all, and striving with all this effort, beating people, slaves, to the point of death to make this thing. We see it now with all the circumstances gone, and we see that when the dust is cleared, we see really silence again."

62
Goldfinger, p. 7.

4
dath Jehurun Synagogue,
lkins Park, Pennsylvania, 1954,
ection.

5
ubble suspended within a
ubical cage and
ithocubus geometricus Hkl
rom D'Arcy Thompson,
n Growth and Form.

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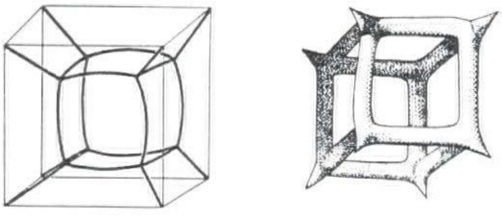
hladni diagrams from T. B.
artholemew, *Acoustics and
lusic.*



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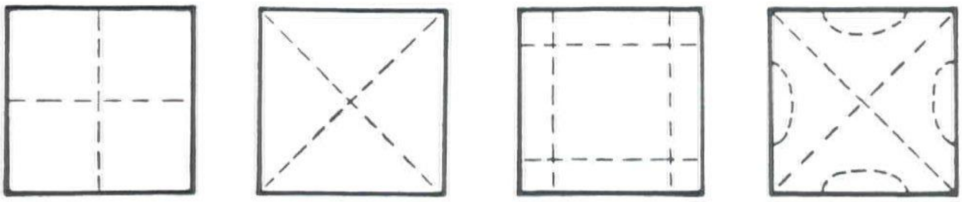

26

the overall cubic form of the Exeter Library and the nine square ceiling design overlaid by the "x" of two diagonal beams of its central light court/clerestory (figures 27). Obviously, his use of such pure geometries possesses a self-evident and universal validity of its own, however, as Huff explained, these natural hieroglyphics, God's geometries, contribute to the authority of such forms in his work. And because the will-to-be of Form summons character, "a nature," Kahn's study of *On Growth and Form* seems to have been a physiognomic one with an eye to its expressive architectural application. Of the similar natural hieroglyphics found within the *Book of Nature*, he said:

> . . . there is this (Existence) Will of the least living thing to be itself. The microbe wants to be a microbe, (for some ungodly reason), and the rose wants to be a rose, and man wants to be man . . . to express . . . A certain tendency, a certain attitude, a certain something which moves in one direction rather than in another kept hammering away at nature to provide the instruments which made this possible. The great desire to express . . . the presence of the unmeasurable, which is the realm of the artist.
>
> It is the language of God.[63]

His interest in Chladni's sound forms appears to be a similar romantic one founded upon an apparently nineteenth century concept of synaesthesia. As musical tones and various shades of color evince a psychological mood in their audience, he explained that the size and shape of a space revealed by light creates a corresponding mood:

> . . . space has power and gives mode.[64]
>
> I feel fusion of the senses. To hear a sound is to see its space. Space has tonality, and I imagine myself composing a space lofty, vaulted, or under a dome, attributing it to a sound character alternating with the tones of a space, narrow and high, with graduating silver, light to darkness. The spaces of architecture in their light make me want to compose a kind of music, imagining a truth from the sense of a fusion of the disciplines and their orders. No space, architecturally, is a space unless it has natural light. Natural light has varied mood of the time of the day and the season of the year. A room in architecture, a space in architecture, needs that life-giving light–light from which we were made. So the silver light and the gold light and the green light and the yellow light are qualities of changeable scale or rule. This quality must inspire music.[65]

Similarly, his description of the architect's plan, "a society of rooms" is presented as an arrangement of Chladni forms:

> Open before us is the architect's plan. Next to it is a sheet of music.
>
> The architect fleetingly reads his composition as a structure of elements and spaces in their light.
>
> The musician reads, with the same overallness, his composition as a structure of inseparable elements and spaces in sound.
>
> A great musical composition is of such entity that when played conveys the

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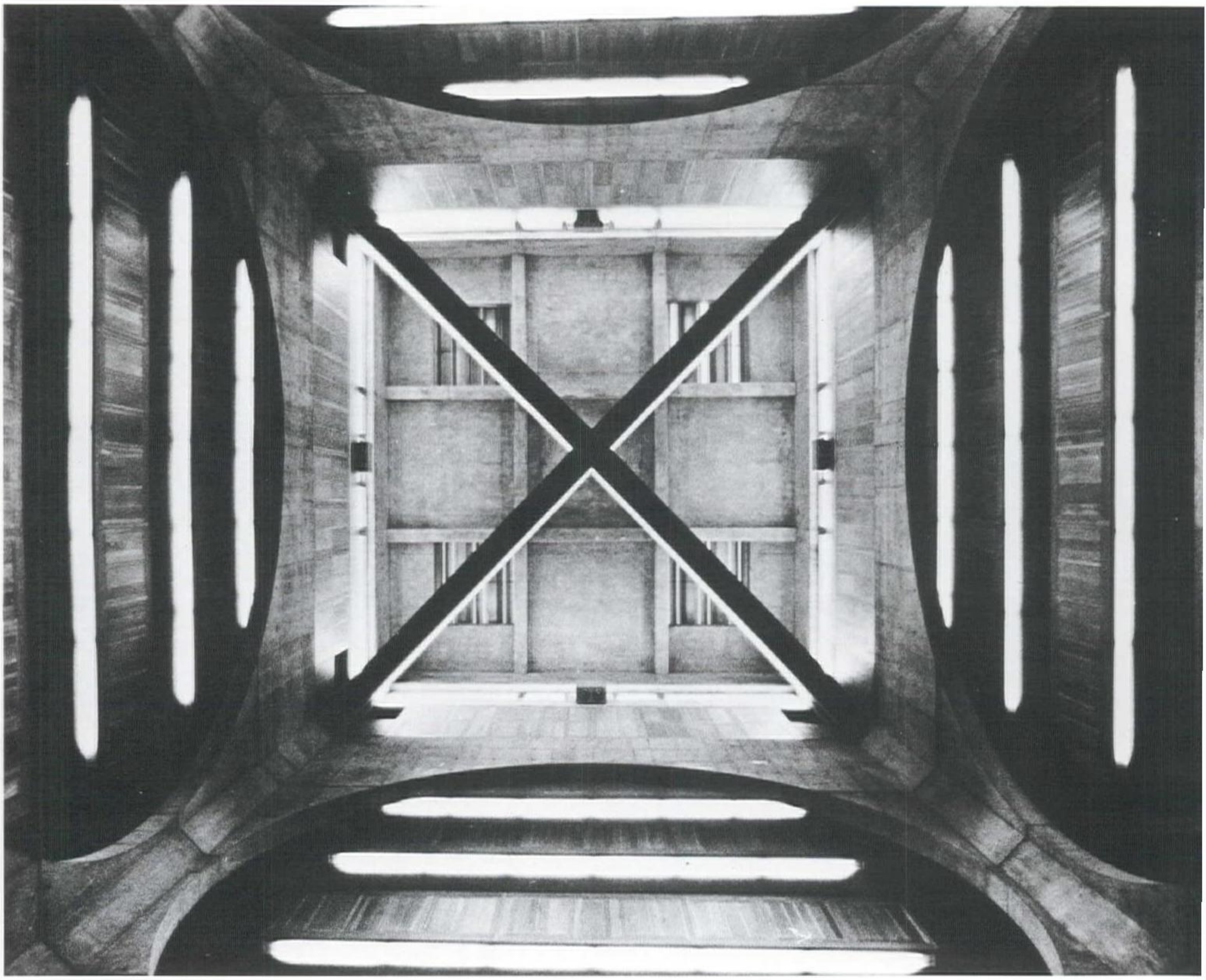
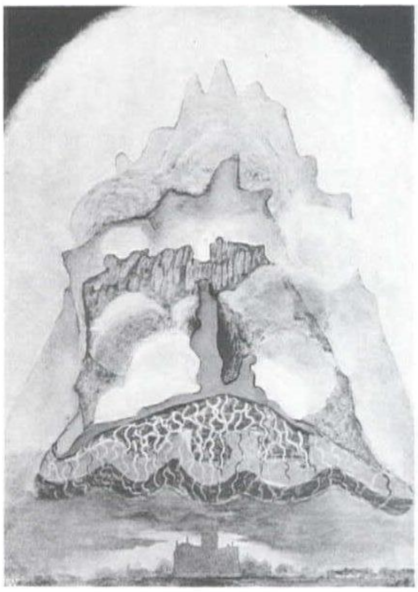
cully, pp. 115-116.

ouis I. Kahn, *l'Architecture d'Aujourd'hui*, p. 14.

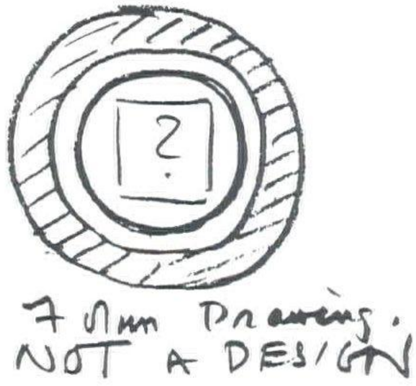
3
ouis Kahn Talks with Students," p. 13.



27
Louis Kahn, Library, Phillips Exeter Academy, Exeter, New Hampshire, 1974, interior.



8
Frozen" musical forms drawn
y clairvoyant, from Besant
nd Leadbetter, *Thought Forms*,
905.



9
ouis Kahn, Form "signature"
f the Unitarian Church, 1959.

feeling that all that was heard was assembled in a cloud over us. Nothing is gone as though time and sound has become a single image.[66]

His illustration of architecture as a kind of "frozen music" verbally resembles two turn-of-the-century portrayals of musical forms seen by clairvoyants after performances of the Romantic composers (figure 28). This example from a book entitled *Thought Forms* by two Theosophists, Annie Besant and Charles Leadbetter, played an important role in Wassily Kandinsky's own Neo-Romantic theory of synaesthesia in the early twentieth century which he developed into the beginnings of modern Abstract Expressionism. Kahn, like Kandinsky, is apparently thinking in a similar vein, most likely an attitude suggested to him by his musically minded mother.

As Form ordains character in inorganic and organic entities, mode in sound, in architecture Kahn explained it *evokes use*,[67] creating a mood that encourages certain activities and inhibits others:

One may say that architecture is the thoughtful making of spaces . . . not the filling of areas prescribed by the client. It is the creating of spaces that evoke a feeling of appropriate use.[68]

As the room, the plan was for him also an inscription of the Form of a particular human activity or program:

. . . The architect considers the inspiration before he can accept the dictates of the spaces desired. He asks himself what is the nature of one [program] that distinguishes itself from another. When he senses the difference, he is in touch with form. Form inspires design.[69]

He often used the following cipher (figure 29), for example, to illustrate the Form "signature" of the Unitarian Church.

Kahn also appears typically romantic in his cogent architectural expressions of materials and structure as natural hieroglyphics. His introspection into the characteristic nature of materials, their respective Existence Will, led to his well known conversation with the brick and similar consultations with other building materials. He explained that once established what a material "wanted to be," he rendered it physiognomically:

I asked the brick what it liked,
and the brick said,
"I like an arch."[70]

. . . I could have souped up the brick with interior rods, but instead I allowed the brick to be brick and build the way brick wants to express itself.[71]

You can have the same conversation with concrete, with paper or papier-maché, or with plastic, or marble, or any material. The beauty of what you create comes if you honor the material for what it really is. . . .[72]

He was also emphatic about leaving the marks of a manufacturing process upon the individual building materials and the building as a whole. He called this kind of

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6
ouis I. Kahn, *Perspecta 9/10*, p. 310.

9
ouis I. Kahn, *Perspecta 9/10*, p. 310.

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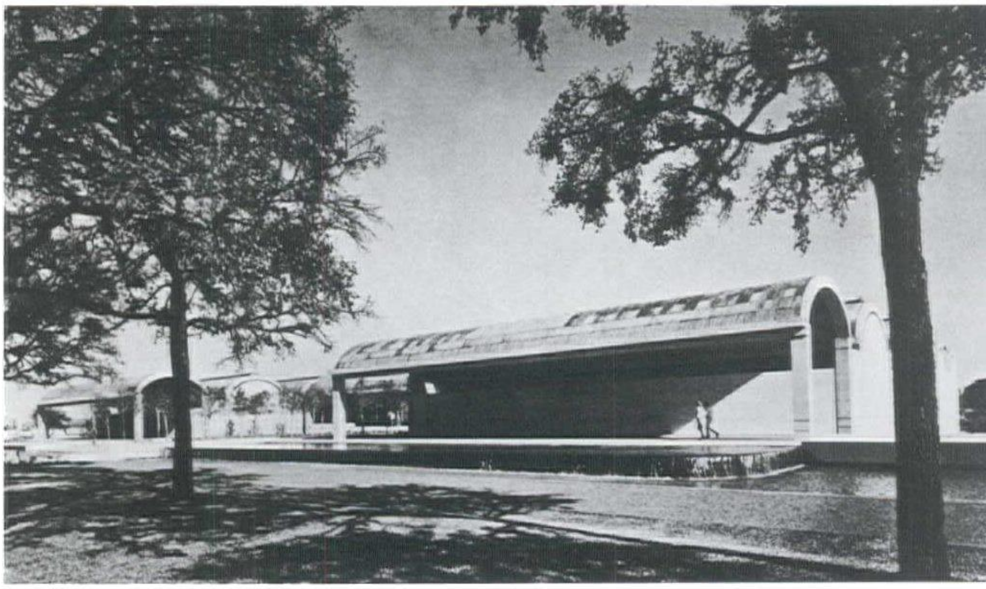
rchitectural Forum, Vol. 137, pp. 63-65.

7
ixten Ringbom, *The Sounding Cosmos*, Acta
cademiae Aboensis, Series A., Vol. 38, No. 2, 1970.

1
ouis Kahn Talks," *House and Gardens*, October,
972, pp. 124–125, 219.

8
ully, pp. 117–118.

2
bell, p. 40.



30
Louis Kahn, Kimbell Art Museum, Fort Worth, Texas, 1966-72.

writing, "sgrafito,"[73] explaining that this physiognomic record led to a modern kind of ornament.[74] Similarly, he contrived to articulate the structure of a building so that an observer could read it and understand why the building did not fall down. For example in the Kimbell Museum (figure 30), and the Yale Center for British Art (figure 31), he boldly unveils the nude structure of the buildings at the portico, allowing the user to grasp the building's structural logic before entering. Of this explicit structural exposition in the Kimbell Museum at Fort Worth, he stated:

> Because of the open porches, how the building is made is completely clear before you go into it. It is the same realization behind Renaissance buildings, which gave the arcade to the street, though the buildings themselves did not need the arcade for their own purposes. So the porch sits there, made as the interior is made, without any obligation of paintings on its walls, a realization of what is architecture. When you look at the building and porch, it is an offering. You know it wasn't programmed; it is something that emerged.[75]

Psychic Hieroglyphics
It is with this revelation of pure structure, according to Kahn, that the room declares itself psychologically, differing with the concept of "universal space" in modern architecture:

> You should never make a space between columns with partition walls. It is like sleeping with your head in one room and feet in another.[76]

> . . . space is not a space unless you can see the evidence of how it was made. Then I like to call that a room. What I would call an area, Mies would call a space, because he thought nothing of dividing a space. That's where I say no. Let me draw a diagram. Here is a large area. You can divide it into four parts. No matter how many partitions are in it, Mies would always call the whole area a space. I would call any one of the four divisions a space, but, after you divide it, the whole thing is not a space any more. I would cal this a space, provided it is never divided. What you see in the third diagram are four spaces. I consider these four rooms. Mies would consider this a space within which divisions could be made. In the Miesian spaces he allows division, but fo me there's not entity when it is divided.[77]

His purist conception that a room is determined solely by its structure suggests his knowledge of modern psychology. According to Esther Kahn, in the early 1930s while she was a doctoral student in experimental psychology at the University of Pennsylvania, her husband would quiz her on Gestalt psychology. He apparently took a keen interest in this subject and she remembers that he continued to peruse her accumulated text books on psychology throughout his life. Kahn's special interest in Gestalt psychology, a partial development of romantic psychology, may have been influenced by his understanding of the somewhat similar German meanings of "Gestalt" and "Form." The tendency of the human psyche to order one's perceptions in a priori "Gestalts," probably encouraged him to understand this psychology as a romantic science of the soul's self-expression, a psychic self-portrait. In summation, of the physiognomic aspect of his work, its romantic "hieroglyphics" copied from *Volume Zero*, he said:

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[73] *Processes in Architecture: A Documentation of Six Examples*, Catalog to the Exhibit, Hayden Gallery, Massachusetts Institute of Technology, 1979, p. 42.

[74] Louis I. Kahn, "Towards a Plan for Midtown Philadelphia," *Perspecta 2*, 1953, p. 23.

[77] Cook and Klotz, p. 212.

[75] *Architectural Forum*, Vol. 137, p. 89.

[76] William F. Huff, "Kahn at Yale", a lecture given at the Institute for Architecture and Urban Studies, New York City, 26 November 1974.

> When I design a building, I want a man to be able to walk down the street, see it, feel the logic behind it, and perceive the derivation of its need.[78]

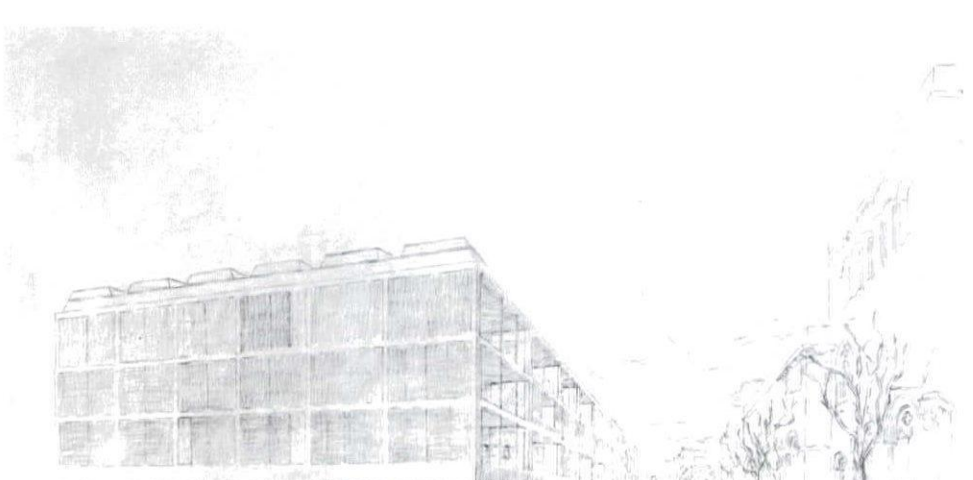
I hope that it will have the qualities that show you through itself.[79]

In interpreting Kahn's work as a comprehensive pictographic expression of a mystical romantic *Weltanschauung*, the question arises: "Why did he not discuss the specifics of this vision in more detail, for example his use of the Egyptian hieroglyphic?" There are three probable answers to this question which come to mind. First, he apparently was not clear himself about the intellectual history and cultural importance of his romantic mysticism:

> . . . I don't know how to extend things, because I don't have any historical knowledge, nor any research tendencies. I can't look up and find other literature, I just can't do it. And so it's left in a way, in a very undeveloped state, as though it were just an offering for someone else, you know, to extend. It doesn't happen, because I really say too little to make it completely understandable. That's why I like to talk about it, because I talk about it more freely, because writing is very difficult for me, though I've done some. . . .[80]

His ignorance of the intellectual origins of his thought reflects the manner in which he acquired information. His family, friends, and associates all explain that being a creative, intuitive artist, not a scholar patiently reading in depth, he borrowed ideas in conversation from others who read more, using them as his "books." His preference for oral instruction parallels the traditional kabbalistic training by word of mouth and may be in part the reason that he habitually learned in this method. Secondly, his reluctance to discuss his belief in detail is typical of the ancient and traditional silence surrounding western mysticism, such as Neoplatonism and kabbalah. For example, according to Plutarch in his essay "Isis and Osiris" of the *Moralia*, the sacred reality of a mystery cult founded in Graeco-Roman-Egyptian culture ". . . for the most part, is veiled in myths and in words containing dim reflexions and adumbrations of the truth, as they themselves intimate beyond question by appropriately placing sphinxes before shrines to indicate that their religious teaching has in it an enigmatical sort of wisdom."[81]

Lastly and most important, Kahn's refusal to discuss his architectural allegories in detail probably rests upon his belief that



31
Yale Center for British Art, sketch.

0
ieckmann, p. 8.

8
ode-von Aesch, p. 236.

9
lcLaughlin, p. 6.

1
lutarch, "Isis and Orisis", ***Moralia*****.**

his articulation of the language of God, indeed, stands on its own without need of explanation, being felt as an universal presence, eternally valid.

Until the end of his life, Kahn apparently retained his romantic belief that a work of art speaks a kind of universal human language which indicates an invisible and ageless face behind the human spirit, the omnipresent Psyche. With the manifestations of Silence into the phenomenal world through singularities, the eternal script of *Volume Zero*, "the language of God" is imprinted upon nature, the human psyche, and art. His aesthetic theory proposes this psychic existence located within every human heart as a significant determinant in the creation of an architectural image of simultaneous, multileveled meanings. Kahn's belief in Form manifesting in his master work was ultimately religious and is perhaps best described in his notebook of 1959:

> Form is the religion of Beginning. Design is the inspired writing of its Scripture in the layers of order. It is the containing tex that binds thought and feeling, prophecy and religion and aspiration. Reading it one experiences renewal of form as immanent, immaterial, undefinable yet characteristic reality, that is ever beginning. And when we celebrate a work which achieves this kind of sacred realization, we partake in man's worshipful likeness to perpetuate the transcendency of form by that of himself."[82]

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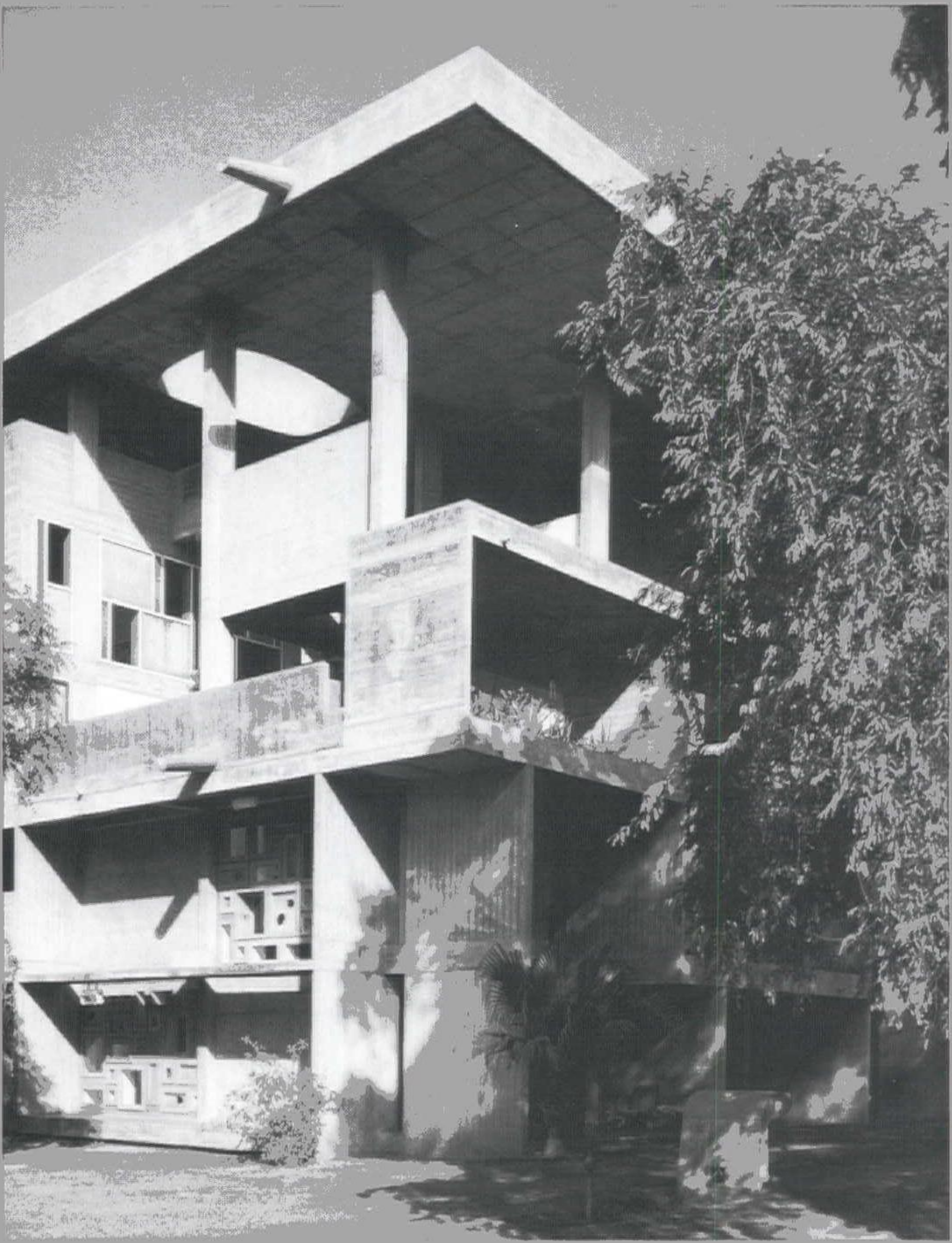
[82] Kahn, personal notebook, K 12/22, c. 1959.

Timeless but of Its Time: Le Corbusier's Architecture in India



Le Corbusier, Shodhan House,
Ahmedabad, 1951–56.

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For Le Corbusier the resolution of opposites was a deeply felt need, which elicited some of his most heroic architectural responses. He was certainly not alone among twentieth century architects in this respect, for some of his greatest contemporaries, Frank Lloyd Wright and Mies van der Rohe, were equally obsessed by it. To create a resolution of opposites, Wright fused, whereas Mies neutralized, a building's constituent parts. This resulted in a state of interdependent individuality in the work of Wright, and a state of anonymity in the work of Mies. Le Corbusier, on the other hand, used juxtaposition as a means of attaining a resolution of opposites. In so doing, he succeeded in preserving the identity and at times even the separateness of a building's constituent parts.

For Le Corbusier the juxtaposition of diverse and often seemingly contradictory architectural elements was not merely a formal exercise, but rather a manifestation of a new kind of synthesis that brought together images of diverse cultural, historical, environmental, sociopolitical, and psychological forces, while permitting each to maintain its identity. He interpreted these forces in terms of a series of polarities that include: history and modernity, Mediterranean and Northern, mechanistic and folkloristic, utopian and pragmatic, puritanical and hedonistic, male and female. Although the resolution of these polar and often contradictory forces obsessed Le Corbusier since his formative period, most notably since the creation of the Villa Schwob in 1916, this complex process found its richest and most subtle realizations in his late work, of which India received the largest share.

As is well known, Le Corbusier's name is linked with two cities in India: Chandigarh, the newly built capital of the state of Punjab, and Ahmedabad, the textile capital of India located in the state of Gujarat. Both cities are intimately tied to two of modern India's greatest statesmen: Mahatma Gandhi and Jawaharlal Nehru. Gandhi, a native son of Gujarat, had spent fifteen years in Ahmedabad laying the groundwork for India's independence. It was from here that he led the famous Salt March in 1930, which initiated the second phase of national nonviolent resistance. Prime Minister Nehru who supported Chandigarh both morally and financially viewed the city as "symbolic of the freedom of India, unfettered by the traditions of the past. . . . an expression of the nation's faith in the future."[1]

The price India had to pay for its indepe dence, gained from the British in July, 1947, was the loss of what is now Pakistan and Bangladesh. The people most affected by the partition of India were the Hindus of West Punjab and Ea Bengal who elected not to remain unde Moslem rule but to resettle in India. In a dition, Punjab lost not only its western part to Pakistan but its old capital, Laho as well, whose population was fifty-six percent Hindu. What set the stage for th creation of Chandigarh was independen and partition, exhilaration and tragedy. Naming the city in honor of Chandi, the Hindu goddess of power, must be seen this context.

Once the decision was made to build a new capital for East Punjab, Prime Minis ter Nehru seized the opportunity to mak it the city of *his* India, liberated from the traditions of the past. As an initial act of commitment, Nehru recommended to th Punjab government that the American planner, Albert Mayer, whom he had known personally, be asked to draw up a master plan for the city. Although Mayer plan was not carried out, Le Corbusier adopted many of its features when he h prepared his own plan in Simla in Febru ary, 1951. This plan was created only three months after P. N. Thapar and P. L Varma, representatives of the Punjab go ernment, had approached Le Corbusier Paris to become the architectural adviso of Chandigarh.[2] Le Corbusier's biannual trips to India resulting from his contractual agreement made with Thapar and Varma started on February 18, 1951. He left a permanent record of his thoughts and observations about India in his sketchbooks, which he carried with him during his many trips. These sketchbook also contain visual imprints of his creati process, giving us a rare glimpse of his buildings in their formative stages.[3]

The two sketchbooks in which Le Corbusier recorded his first stay in India extending from February to April, 1951, give us the best indication of what he found most compelling and timely in th country's built environment.[4] It is revealing that the very first observation he made about India refers to Sir Edwin Lutyens and the Jantar Mantar, the Astr nomical Observatory in Delhi built by Maharajah Jai Singh in 1719. He considered the Observatory as "leading the way: linking mankind with the cosmos." In contrast, he found even the "best qualities" of Lutyens' work in New Delhi as less successful.[5] Yet both touched a familiar chord in his heart: the Observatory being an example of what he described in *Towards a New Architecture* as "pure creation of the mind," and Lutyens' New Delhi, with its axes and broad boulevards, being an evocation of Paris. It is not surprising that both reappear in Chandigarh.

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[1] Quoted by B. P. Bagchi, *Chandigarh* (Chandigarh: New Horizons Press, 1965), p. 1.

[2] For an account of the birth of Chandigarh, see Norma Evenson, *Chandigarh* (Berkeley: University of California Press, 1966). For an interpretation of the city's symbolic significance, see Stanislaus von Moos, "The Politics of the Open Hand: Notes on Le Corbusier and Nehru at Chandigarh," in *The Open Hand: Essays on Le Corbusier*, ed. Russell Walden (Cambridge, Mass.: The MIT Press, 1977). pp. 412–57.

[3] There are seventy-three sketchbooks covering the period from 1914 to 1964 in the Archives of the Foundation Le Corbusier in Paris. These have been published by the Architectural History Foundation, New York as *Le Corbusier Sketchbooks Volume 1, 1914–1948* (1981); *Le Corbusier Sketchbooks Volume 2, 1950–1954* (1981); *Le Corbusier Sketchbooks Volume 3, 1954–1957* (1982); *Le Corbusier Sketchbooks Volume 4, 1957–1964* (1982).

[4] These are Sketchbooks E 18 and E 19. See *Le Corbusier Sketchbooks Volume 2, 1950–1954*, No. 309–414.

Beyond this initial observation, these two sketchbooks encompass a wide yet predictable range of images of the Indian environment: the seventeenth century Pinjore gardens near Chandigarh, Hindu and Jain temples in Ahmedabad, the Mogul style Viceroy's garden by Lutyens in New Delhi, Bombay's Gateway of India of 1911, aerial views of Rajasthani villages near Jaipur, old courtyards in Ahmedabad, a water tower near Ambala, and a factory in Ahmedabad. These and similar examples included in Sketchbooks E 18 and E 19 suggest that Le Corbusier's approach to absorbing a new culture had remained unaltered since his early travels spanning the years 1907–11, when he classified his observations into three categories: culture, folklore, and industry.[6]

The first two Indian sketchbooks also shed light on Le Corbusier's itinerary, which in turn sets the stage for initiating contact with all but one of his future Indian clients.[7] After his arrival in New Delhi on February 19th, his first destination was Chandigarh and Simla. Already on March 19th, he left for Delhi to fly from there to Ahmedabad. After a brief stay in Ahmedabad on the 22nd and 23rd he flew to Bombay to meet Bhabha Tata, the steel magnate and major owner of Air India.[8] On his way back to Chandigarh, he stopped in New Delhi on the 25th to be entertained in the presidential palace. Six days later he left Chandigarh to fly from Delhi to Bombay, whence he returned to Paris on the 2nd of April.

During these first six weeks in India, Le Corbusier gained a deeper understanding of the country's cultural, vernacular, and industrial tradition, met most of his future clients from Pandit Nehru to the Sarabhais, and initiated ambitious projects ranging from the master plan of Chandigarh to a cultural center for Ahmedabad. But why Ahmedabad? Such a question happily no longer needs to be raised about Chandigarh,[9] but still requires an answer with regard to the commissions he received in India's textile center. There are few cities in the world that can claim more than three buildings by Le Corbusier, and Ahmedabad is one of them, (after Paris, Chandigarh and La Chaux-de-Fonds), with the Museum, the Millowners Association Building, and the Sarabhai and Shodhan houses to its credit. Such major commissions, all initiated during Le Corbusier's first visit to the city, attests to Ahmedabad's intellectual climate and economic prosperity unrivalled in India for a city of its size. The events that contributed to these favorable circumstances have a long history whose highlights are worth mentioning here.[10]

Since its founding by Sultan Ahmed Shah of Gujarat in 1411 A.D., Ahmedabad had been a city of commerce and industry centered around textiles. After a period of great prosperity during the first hundred years of its existence, the city declined, but recovered again when Akbar annexed it to the Mogul Empire in 1572. Its recovery prepared the way for Sir Thomas Roe's visit in 1618, which initiated the first commercial ties between Ahmedabad and England. The disintegration of the Mogul Empire during the eighteenth century brought in the Maratha from the south, who ruled it until 1817. During that year, and almost two hundred years after Sir Thomas's visit, Ahmedabad's ties with Britain were forcibly reestablished by the East India Company.

Yet the British presence in Ahmedabad during the next hundred and thirty years was never too pervasive, largely because the economic base of the city's highly developed culture had always been trade and industry rather than agriculture. Hence, long before the advent of the modern era, the leading citizens of Ahmedabad were businessmen rather than landowners, or men in the service of a court. This enabled the Ahmedabadis to take up the British on their own terms by offering them stiff competition through mechanizing the city's textile industry.

With the help of the city's Jain financiers, the modern textile industry of Ahmedabad was founded in 1861. One of the key factors behind the success of this industry is that since its founding it has been largely run by a closely knit group of Jain families who valued cooperation rather than competition among

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R. Nair, *Why Chandigarh?* (Simla: Publicity epartment, Punjab Government, 1950).

Corbusier Sketchbooks Volume 2, E. 18, . 329–330. It must be kept in mind, however, at Le Corbusier's reservation about Lutyens' work made here in the context of an exceptional ample of earlier Indian architecture. Elsewhere was unequivocal in his praise of this British chitect/planner. "New Delhi (in Tuscan inspired yle), the capital of imperial India, was built by tyens over 30 years ago, with extreme care, great lent, and with true success. The critics may rant they like, but the accomplishment of such an dertaking earns respect." (Le Corbusier, *Oeuvre mplète 1952–1957*, p. 51). For Lutyens' influence Chandigarh, see Allan Greenberg, "Lutyens' chitecture Restudied," *Perspecta 12* (1969), pp. 9–52.

r the best study of Ahmedabad in English see, nneth L. Gillion, *Ahmedabad, A Study in Indian ban History* (Berkeley: University of California ess, 1968).

Corbusier, *Le Voyage d'Orient* (Paris: Les Éditions rces Vives, 1966). For an earlier published account Le Corbusier's trip to the East, see "*Confession*," in *L'Art Décoratif d'Aujourd'hui* (Paris: Édition G. s, 1925), pp. 197–247, esp. p. 246.

e client whom he was to meet only in the fall of 1 was Shyamubhai Shodhan.

ring the next few years Le Corbusier repeatedly d to convince Bhabha Tata to let him build the adquarters of the Air India Company, but without ccess. I am indebted to Charles Correa for this ormation.

themselves. Thus, as Kenneth Gillion has pointed out, "the caste system and joint family system found new avenues of expression in a modern context."[11] In addition to the social cohesion of the Jains, it was also their work ethic, puritanical and frugal character, not to mention their entrepreneurial spirit, that contributed greatly to the success of Ahmedabad's modern textile industry. No wonder that by the turn of the century the city became known as the "Manchester of India."

The economic growth Ahmedabad enjoyed since the 1860's was given a further boost by World War I when the termination of British imports allowed the city's textile mills to supply India's needs more fully. After the war the city utilized its unprecedented economic power by becoming, in Gillion's words, "a financial and political base for the Indian National Congress and a leader and prototype of New India."[12] While it was the mills that supplied the financial base for this new political movement, it was Mahatma Gandhi who provided the leadership.

The fact that Ahmedabad became Gandhi's home between 1915 and 1930 had a powerful consequence on the city's political development, both in terms of its own affairs as well as in terms of its influence on the nation as a whole. Enjoying the respect of both industry and labor, Gandhi proved to be an effective arbitrator between the wealthy millowners and their workers during the city's labor unrests in the late teens and twenties. Moreover, through his teachings, Gandhi disseminated those very ideals which made Ahmedabad such a success: puritanism, frugality, and the ethic of hard work.

When India's independence was won in 1947, Ahmedabad could rightly claim an important share in its realization. More importantly, however, it could claim that its unique blend of traditional values and modern technology could serve as an appropriate model for independent India. Conscious of this potential, the leaders of the city pursued a two-pronged approach to shaping its future: by strengthening the achievements of the past and by moving into new directions. In pursuit of the former, they diversified the city's industry, and helped make it, even if only temporarily, the state capital of Gujarat. In pursuit of the latter, they established it as one of the foremost cultural centers of India. In so doing, they revived an aspect of th city's past that had been lost since the seventeenth century.

Among the key leaders of the new Ahmedabad four Jain textile millowners stand out: Kasturbhai Lalbhai, Chinubha Chimanbhai, Surottam Hutheesing, and Guatam Sarabhai. Mr. Lalbhai, the wealthiest of the Ahmedabad industrialists, spent a considerable part of his fortune on establishing and supporting the city's new cultural and educational instit tions through such organizations as the Ahmedabad Education Society and the Ahmedabad Textile Industry's Research Association. Chinubhai Chimanbhai, a nephew of Mr. Lalbhai, was the city's energetic mayor, who, during his tenure between 1950 and 1962, was instrumental i building such major undertakings as libraries, playgrounds, a stadium, an auditorium and a cultural center. It was the mayor in fact who was largely responsible for inviting Le Corbusier to the city. Surottam Hutheesing, another nephew c Mr. Lalbhai, was the president of the Mill owners Association, the textile industry's powerful organization founded in 1891, and it was he who was responsible for commissioning Le Corbusier to build the Association's new headquarters. Gautam Sarabhai, a leading member of a family that distinguished itself in the arts and sciences, was the founder, designer and first director of the National Institute of Design in Ahmedabad, which under his leadership became one of the foremost art schools of India. And it was Gautam Sarabhai's sister-in-law, Manorama–a niece of Mr. Lalbhai–who entrusted Le Corbusier with her house.

During Le Corbusier's first visit to Ahmedabad in March 1951 Mayor Chinubhai Chimanbhai had given him tw commissions, the building of a cultural center overlooking the Sabarmati river, and a house for himself.[13] Although the Chimanbhai house was never built by Le Corbusier, and the cultural center was only partially realized according to his plans,[14] he was at least given the opportunity to build the center's museum according to ideas he had developed since 1929 (figure 1).[15] In the museum of Ahmedabad Le Corbusier combined two concepts at once: the notion of an environment that is both interdisciplinary and unlimited. Even if neither of these concepts was realized in the building lite ally, both are inherent in its design. The

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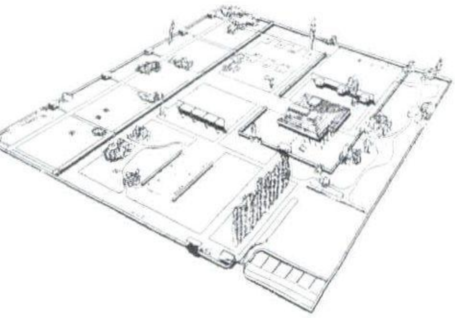
[11] Gillion, p. 94.

[12] Gillion, p. 153.

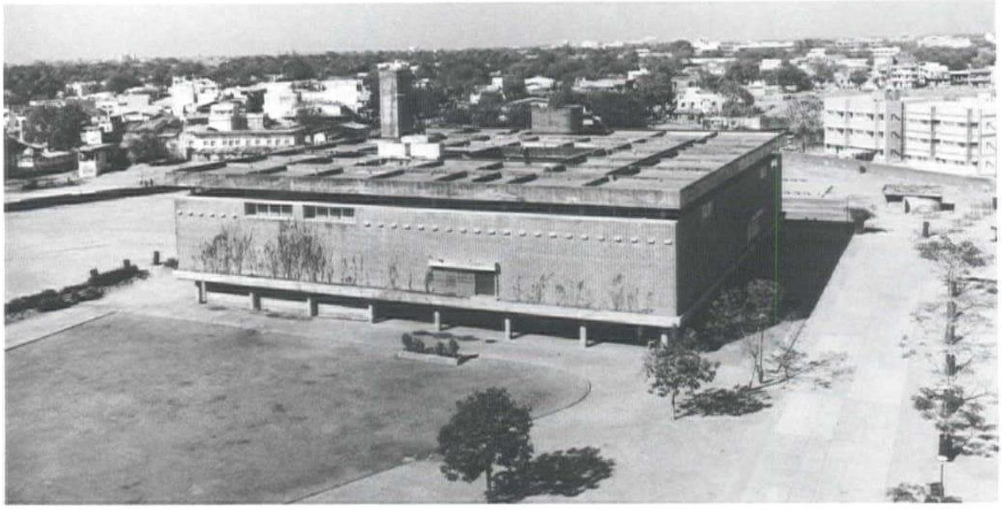
[13] Except during the monsoon season, this river is reduced to a trickle, leaving the large riverbed exposed. For the project of the Chimanbhai house, see Le Corbusier, *Oeuvre complète 1946–1952* (Zurich: Les Éditions Girsberger, 1960), p. 163.

[14] The unexecuted buildings include the Spontaneous Theatre, The Magic Box, the Library and the Art Studios. See Le Corbusier, *Oeuvre complète 1946–1952*, pp. 160–61. Balkrishna Doshi's Tagore Theatre and Gautam Sarabhai's National Institute of Design were subsequent additions to the still incomplete cultural center.

[15] The Museum of Ahmedabad was first adumbrated in Le Corbusier's World Museum planned for his Mundaneum of 1929. However, the most direct prototypes for this museum are the projects for the Museum of Contemporary Art, Paris, 1931; the Pavilion for the Paris International Exhibition of 1937, and the Museum of Unlimited Extension planned for Philippeville, Algeria in 1939.



2
Le Corbusier, Project for Museum of Contemporary Art, Paris, 1931.



1
Le Corbusier, Museum of Ahmedabad, 1951-56.

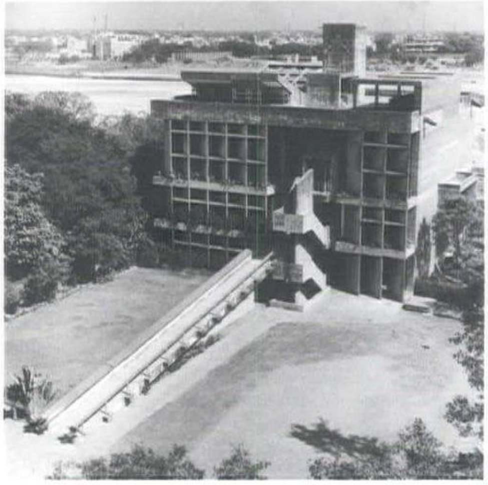
best explanation of these concepts can be given by citing their first visualizations.

The concept of an interdisciplinary cultural environment was first proposed by Le Corbusier in the project for the Mundaneum's World Museum of 1929. In this ziggurat shaped building the visitor could have surveyed the physical manifestation of man's diverse achievements in a historical and geographical context.[16] The museum of unlimited growth was first developed by him in 1931, when he envisaged such a building as a flattened out ziggurat spiralling outward in squares with the potential of being extended *ad infinitum* (figure 2). Both of these prototypes find a partial realization in Ahmedabad, where the museum's exhibition space is treated as a continuous volume revolving around a central courtyard. This makes it possible to present works representing the broadest range of human activity in a contextual setting and in a continuous manner.

For the roof of the museum, Le Corbusier had planned a Mogul garden which he intended to fill with flowers, shrubbery, and forty-five shallow reflecting pools arranged in straight lines. Had it been realized, this garden would have combined Le Corbusier's longstanding fascination with roof gardens with his admiration of India's own cultural tradition. Regrettably, however, only the concrete frames of the pools give the visitor a hint of the architect's original vision.

Although the cultural center was not completed as originally planned and the museum is still underutilized, Le Corbusier's original proposal – the creation of a stage where the arts could not only interact among themselves but could also relate to a broader contextual setting – is still a provocative concept. It is not surprising that it had such an appeal for Ahmedabad's energetic mayor, who was determined to make the city a symbol of the new India, not unfettered by the past as Nehru proposed but rather continuing its past through its cultural institutions.

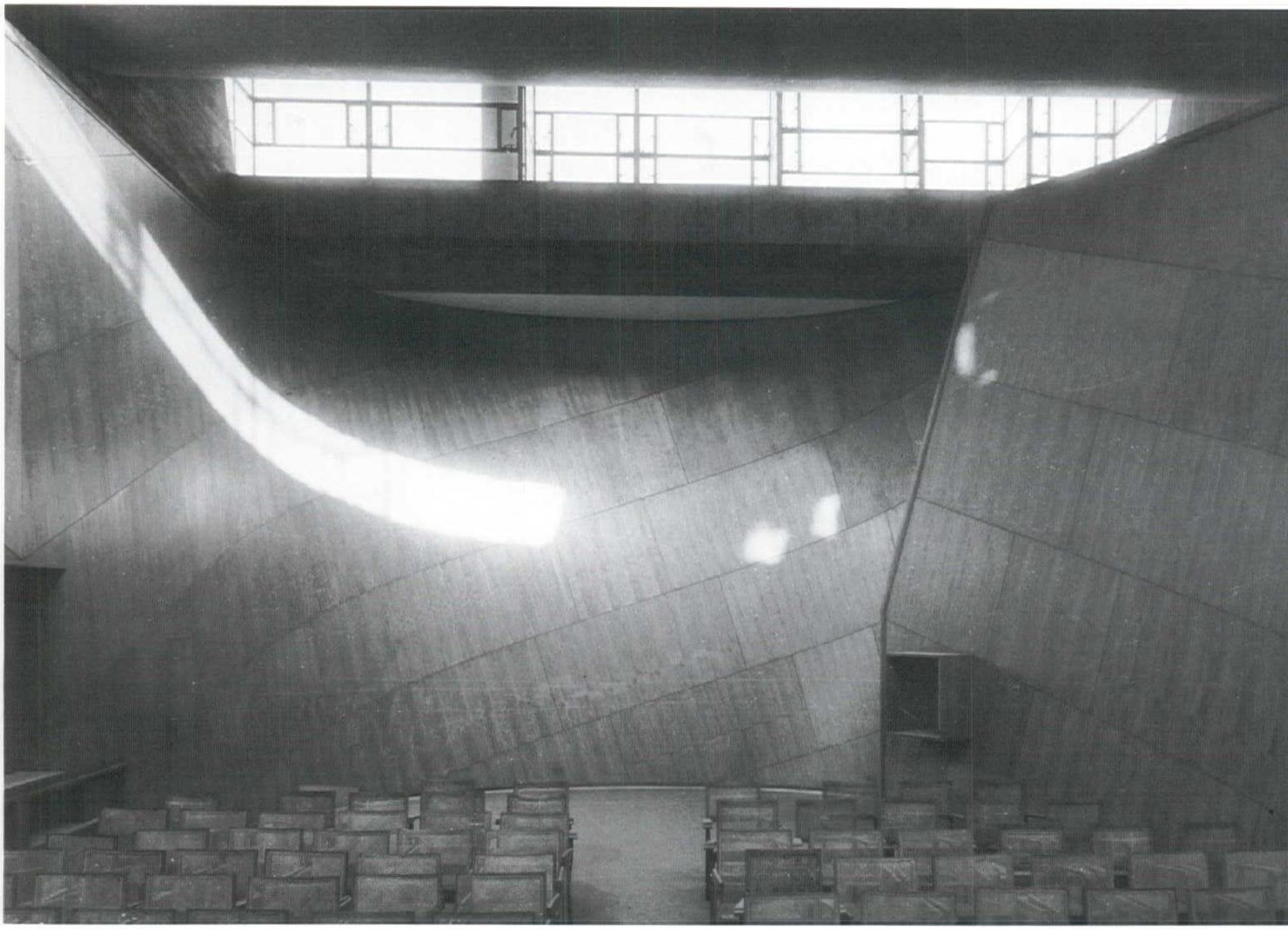
The second public building Le Corbusier designed for Ahmedabad is the headquarters of the Millowners Association commissioned by its president, Surottam Hutheesing, in March, 1951 (figure 3).



3

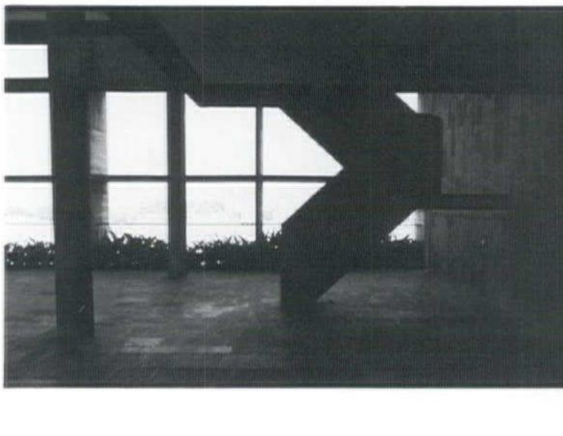
3
Le Corbusier, Millowners Association Building, Ahmedabad, 1951-56.

Corbusier, *Oeuvre complète 1910–1929* (Zurich:
s Éditions Girsberger, 1960), pp. 190–97, and Paul
et and Le Corbusier, *Mundaneum* (Brussels: J.
pègue & Co., 1928).



7
Millowners Association
Building, Auditorium.

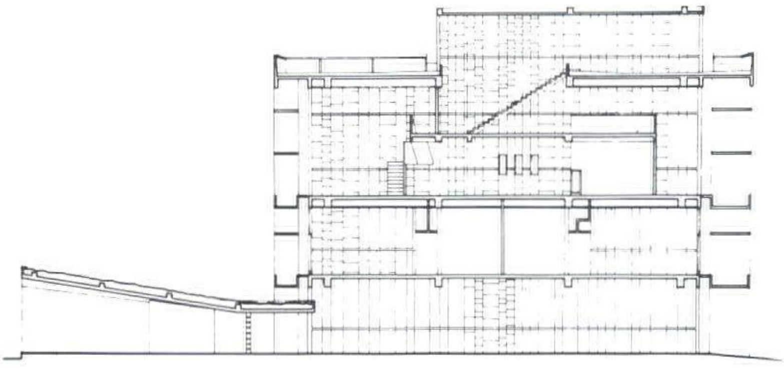
6
Millowners Association
Building, The Great Lobby.



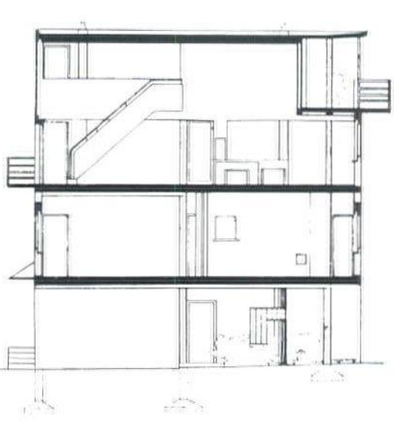
Planned for a site overlooking the Sabarmati river, the building was to serve a unique organization whose essence Le Corbusier seems to have understood very well. Since its founding in 1891, the Millowners Association provided an institutional framework for the close family ties that existed among the city's largely Jain textile millowners. Here Le Corbusier encountered a public institution whose very existence depended on personal relationships that resulted from caste and family ties. His response to this unique commission was to express the institution's dual character–the private and the public–through his concept of the house as a palace which was developed during the 1920s and given clearest expression in his book, *Une Maison–Un Palais*, published in 1928. There he defined the palace as "a house endowed with dignity," which for him meant monumentally achieved by "pure forms composed according to a harmonious law."[17] One of the houses Le Corbusier singled out in his book to exemplify his concept of the house-palace was his Villa Cook of 1926, which offers important clues for understanding the internal organization of the Millowners Association Building (figures 4, 5).[18]

The Millowners Association Building, like the Villa Cook, is defined by a richly symbolic front and back placed between two blind end walls. Within this exterior shell the Millowners Building contains a partly open ground floor for service and circulation, as did its antecedent. The second floor in both is intended for more private functions: the bedrooms in the Villa Cook, and the board rooms and offices in the Millowners Association. The third and fourth floors in both buildings are treated as double floors and intended for public functions: living rooms, dining rooms and kitchen in the Villa Cook and lobby and auditorium in the Millowners Building.[19]

The lobby and the auditorium are the climactic points of the interior of the Millowners Building. It is here that Le Corbusier created the greatest dramatic tension by treating the lobby as an open space defined by harsh, angular forms, and the auditorium as an enclosed space delineated by soft, curvilinear forms (figures 6, 7). "This prodigious spectacle has been produced by the interplay of two elements, one male, one female: sun and water. Two contradictory elements that both need the other in order to exist."[20] No better words than these, written by Le Corbusier many years before this building was ever conceived, best sum up the essence of these antithetical spaces. Here, as in most of his buildings, Le Corbusier achieved a resolution of opposites by juxtaposing rather than fusing diverse architectural elements so that each part retains its identity and separateness. With the male/female correlation being the central theme here, Le Corbusier imbued these spaces with a meaning that is analogous to the Indian attitude toward the sexes. Viewed in this light, the relationship between the lobby (male) and the auditorium (female) based on the notion of a strong sense of identity and separateness acquires a special significance.



4
Millowners Association Building, east-west section.



5
Le Corbusier, Villa Cook, Boulogne-sur-Seine, 1926, section.

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the Villa Cook Le Corbusier reversed the traditional ganization of the interior of a house by placing the blic over the private floors. This concept was first alized in his Ozenfant house built in Paris in 1922, here the double-storied studio occupies the top two ors.

Corbusier, *The Radiant City* (New York: The Orion ess, 1967), p. 78, (originally published as *La Ville dieuse* in 1933).

Corbusier, *Une Maison–Un Palais* (Paris: Les litions Crès, 1928), p. 52.

fore the Millowners Building acquired its present rm, it had undergone major changes during its ngthy design process, which included an earlier oject with stone facing and only a few sun eakers. See, Le Corbusier, *Oeuvre complète 46–1952*, p. 162.

Besides the Millowners Building, Surottam Hutheesing also commissioned Le Corbusier to build him a house in the spring of 1951 (figure 8).[21] The architect's task was to respond to the life style of a wealthy bachelor, about to marry, who needed a variety of spaces to allow entertaining on a grand scale. After the plans were completed, however, Mr. Hutheesing decided to sell these to his fellow millowner, Shyamubhai Shodhan. Notwithstanding the change in the site and the dissimilarity in his life style, the new client wanted Le Corbusier to build him the very same house he had designed for the former client.[22] Hence in assessing it, the original functions intended for the house must be kept in mind.

For Le Corbusier the Shodhan house represented the culmination of his efforts in the field of domestic architecture, which evolved in a period spanning more than forty years. In order to understand its nature and meaning, we must examine the house in a dual context: how it grew out of the architect's own works, and how it is related to the traditional architecture of Ahmedabad.

The house is a cubical concrete frame structure whose exterior surface unfolds from a severe and forbidding entrance façade to an open and welcoming garden façade (figures 8, 11). By treating each side of this classical cube differently, Le Corbusier juxtaposed the formality of the Mediterranean with the flexibility of the Northern approach to architectural design. The classical aspects of the house find their antecedents in Le Corbusier's earlier houses going back to the one he designed for his parents in La Chaux-de-Fonds in 1911 (figure 9). Apart from its sharp and clear cubical mass, certain important details of the first design for the Jeanneret house find their way into the Shodhan house, as for example its flat roof defined by strong projecting cornices and the continuous band of windows beneath it. These are reinterpreted as the parasol roof and the continuous openings of the terrace in the Shodhan house.

Le Corbusier's most important house built in La Chaux-de-Fonds, the Villa Schwob of 1916, serves as a point of departure for the structure and personality of the Shodhan house (figure 10). As one of the first concrete framed houses in Europe,[23] the Villa Schwob marks the beginning of Le Corbusier's use of this structural system, which reached a high degree of complexity in Ahmedabad. More interesting however, is the way in which these houses reveal Le Corbusier's own perso ality. He was known to have had an "impressive demeanor seemingly built for defense, behind which he appeared to withdraw."[24] On the other hand, he was considered by his friends as "uncommonly generous and unselfish."[25] Both houses convey these personal characteristics by the stark and almost forbidding demeanor of their street façades ar the generous and accessible quality of their garden façades (figures 8, 10, 11, 12). As a result, they effectively ward off strangers, while at the same time, they welcome those who have been allowed enter.

Although the Schwob and Jeanneret houses are important precedents for the Shodhan house, they play a far less significant role in this capacity than his houses designed after 1919. In fact, in 1919 Le Corbusier initiated a new direction in architecture which he never abandoned afterward. In the realm of domest architecture the Maison Citrohan of 1920–22 and the Maison Monol of 1919 mark the beginning of this new direction (figures 13, 32).[26] The former, angular an firm, stands erect on the ground, dominating the setting; while the latter, undulating and soft, rests on the ground, absorbing the setting. Le Corbusier's description of what for him represented th masculine and feminine characteristics i architecture succinctly sum up the essence of these two projects.

> In the one, strong objectivity of forms, under the intense light of a Mediterranean sun: *male* architecture. In the other, limitless subjectivity rising against a clouded sky: *female* architecture.[27]

Having thus set the stage for a dual approach to domestic architecture, Le Corbusier used these two projects as th basis of all his later houses. When in 19 he was called upon to design a house fo Surottam Hutheesing, a bachelor wantin to entertain extensively, he understandably followed the Citrohan model.

Among the many sources of the Maison Citrohan two provide the best clues to a understanding of its nature and meanin The inspiration for its exterior came fro such Parisian artists' studios as those built by François Le Coeur in the rue Cassini in 1906, which Le Corbusier admire

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[21] *Le Corbusier Sketchbooks Volume 2, 1950–1954*, E. 18, no. 359.

[24] Maurice Jardot, "Sketch for a Portrait," in Le Corbusier, *Creation is a Patient Search* (New York: Praeger Publishers, 1960), p. 9.

[25] Jardot in Le Corbusier, *Creation is a Patient Search*, p. 11.

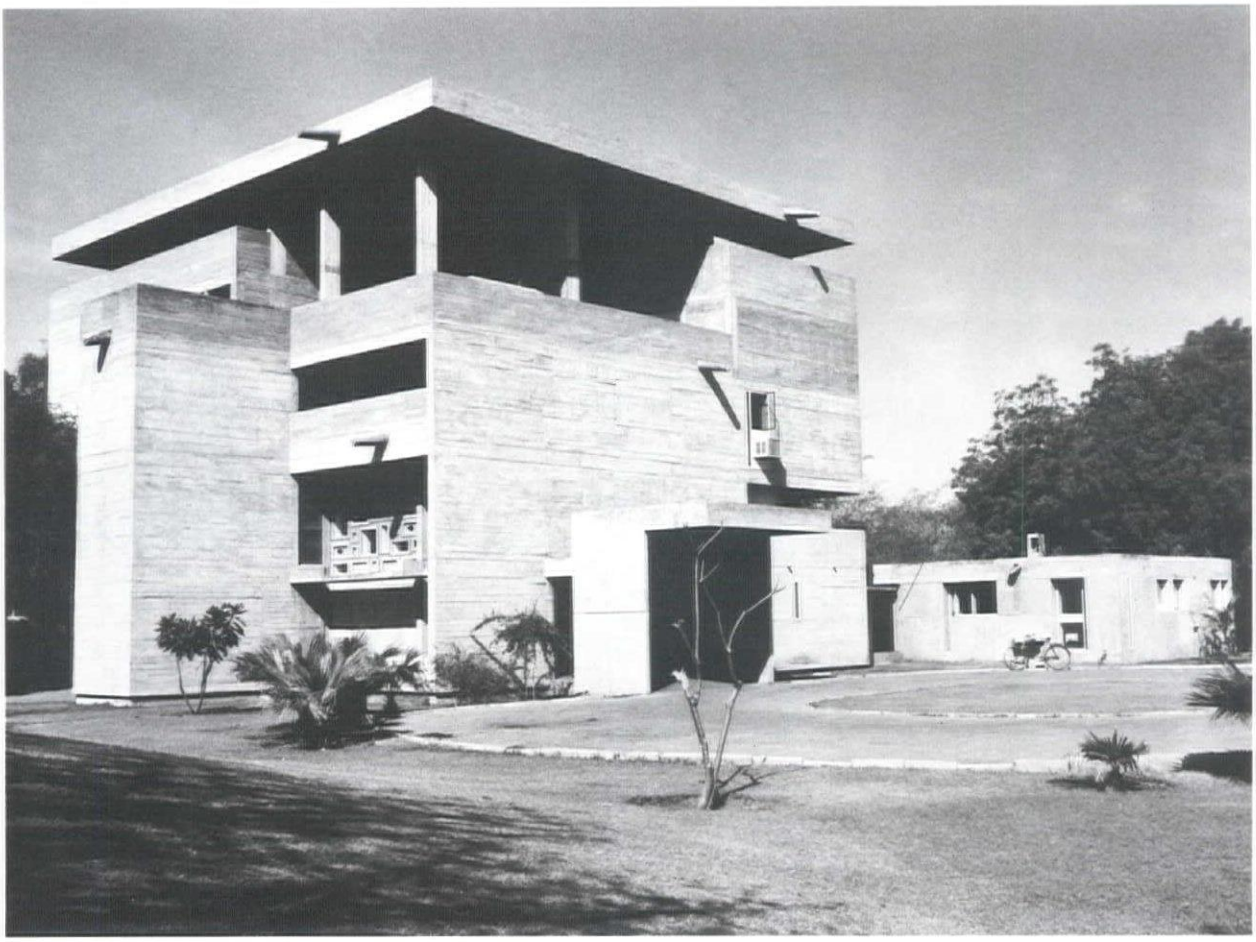
[22] Le Corbusier, *Oeuvre complète 1952–1957* (Zurich: Les Éditions Girsberger, 1958), p. 134; and Balkrishna V. Doshi, *Le Corbusier, Sarabhai House and Shodhan House, Ahmedabad, India* (Tokyo: A.D.A. Edita, 1974), n.p.

[26] For the importance of these two projects, see my article, "Le Corbusier's Changing Attitude Toward Form," *Journal of the Society of Architectural Historians*, XXIV (March, 1965), pp. 15–23, and reprinted in my *Le Corbusier in Perspective* (Englewood Cliffs: Prentice-Hall, 1975), pp. 68–73.

[27] Le Corbusier, *The Modulor* (Cambridge: Harvard University Press, 1958), p. 224.

[23] Reyner Banham, *Theory and Design in the First Machine Age* (New York: Praeger Publishers, 1960), p. 221.

Corbusier, Shodhan House,
medabad, 1951-56.



Corbusier, First Scheme for
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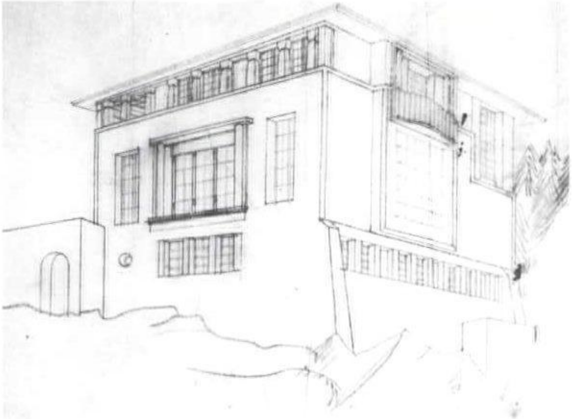
aux-de-Fonds, 1911.



Corbusier, Villa Schwob, La
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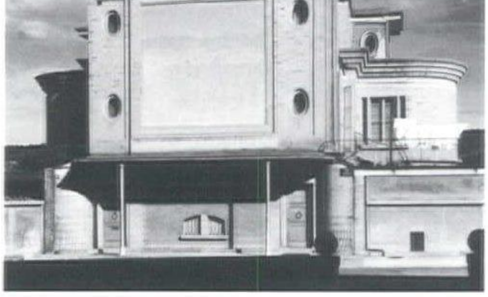

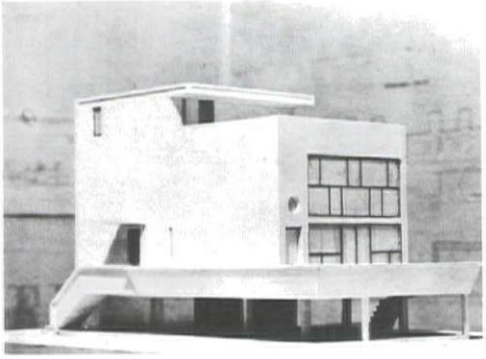

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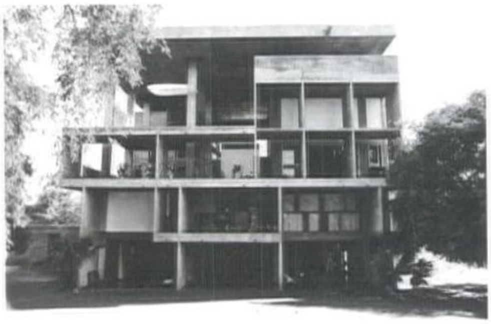

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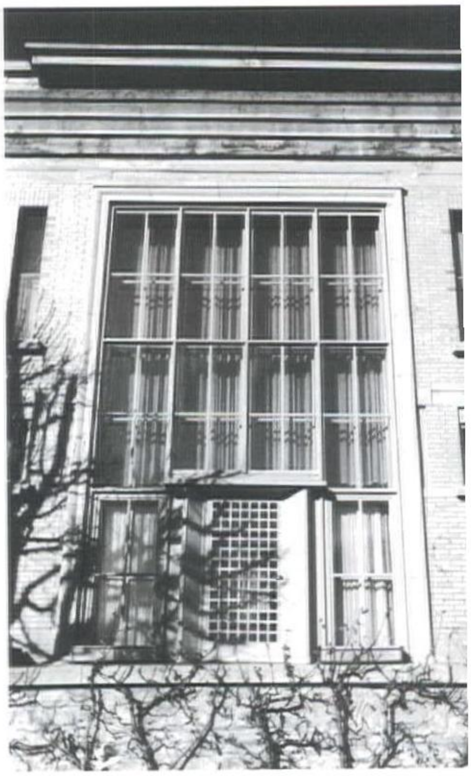

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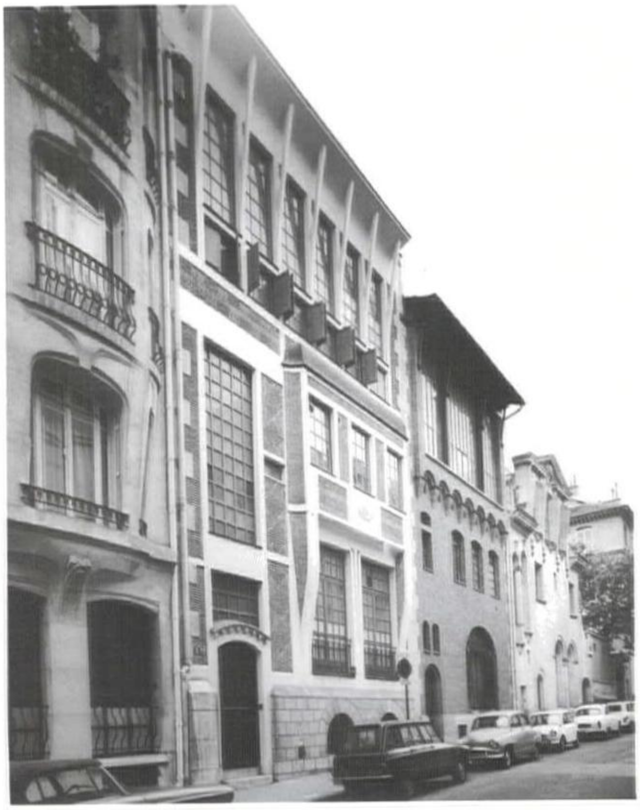


14

11
Shodhan House, garden façade.

12
Villa Schwob, garden façade.

13
Le Corbusier, Project for Maison Citrohan, 1920-22.

14
Francois Le Coeur, Artists' Studios, Rue Cassini, Paris, 1906

15
Le Corbusier, First scheme
Villa Baizeau, Carthage, Tunisia, 1928.

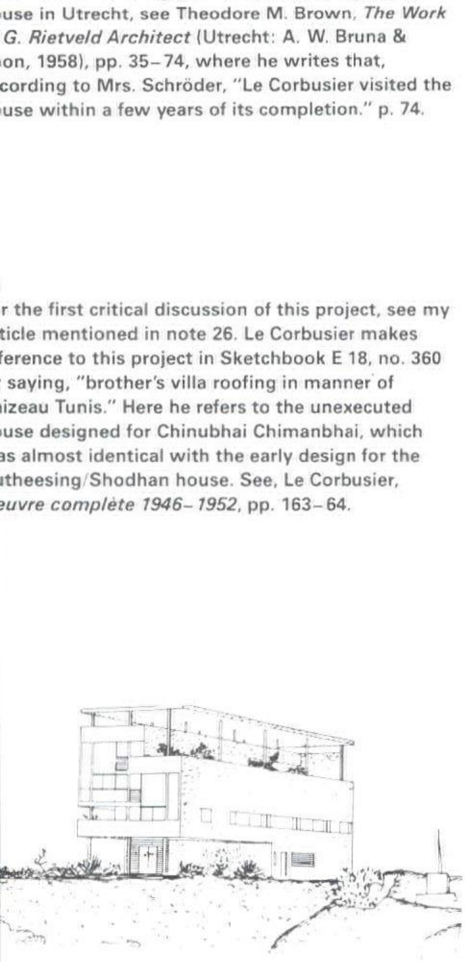
16
Shodhan House, perspectiv

17
Le Corbusier, Project for Lannemezan House, 1940.

18
Le Corbusier, Project for Errazuris House, 1930.

greatly (figure 14).[28] Its double storied interior, on the other hand, was based on the spatial organization of the Café Legendre in Paris, which Le Corbusier frequented with his cousin, Pierre Jeanneret (figure 26).[29] The fusion of the artist's studio with the restaurant resulted in a new kind of house which so appropriately expresses the lifestyle of a growing segment of the urban population in the industrialized world: uprootedness and transience. The former is embodied in the artist's studio, the latter in the restaurant, and Le Corbusier understood both these states of mind from personal experience, for when he conceived the Maison Citrohan he was an uprooted artist whose family table became the restaurant table.

The most important link between the Maison Citrohan and the Shodhan house is the first project for the Villa Baizeau in Carthage, Tunisia, designed by Le Corbusier in 1928 (figure 15).[30] The significance of this design lies in two areas: a new approach to climate control and a fuller use of de Stijl vocabulary. The former is exemplified by the parasol roof and the interlocking interior spaces providing shade and ventilation; the latter is expressed by the façade where the studio and ribbon windows–hallmarks of Le Corbusier's style of fenestration–are fused with the help of de Stijl vocabulary. As in Mondrian's paintings, or especially as in Rietveld's Schröder house of 1924, the composition of the façade is based on compensation rather than symmetry achieved by a strong interplay between lines and planes, between verticals and horizontals, and between different colors.[31] All of these elements were given a more complete realization in the Shodhan house (figure 16). The design that provides the key connection between the Villa at Carthage and the Shodhan house is Le Corbusier's Lannemezan house of 1940 (figure 17). This project was conceived as a cubical structure to be built of exposed stone and wood. Here, as in his houses designed during the 1930s, Le Corbusier abandoned his favored structural device, the steel or concrete skeletal frame, in favor of load bearing walls to be constructed of natural materials. Moreover, instead of putting the house on stilts, he anchored it to the ground, thus imbuing it with a sense of rootedness which was so clearly lacking in his houses of the 1920s.



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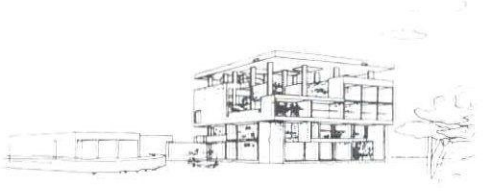

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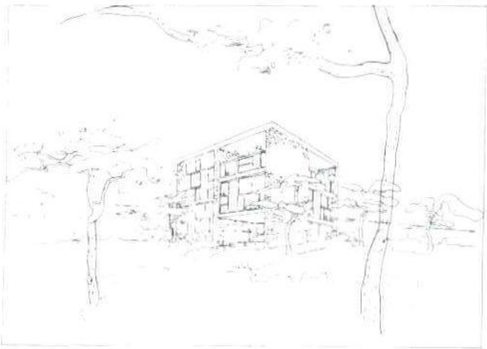

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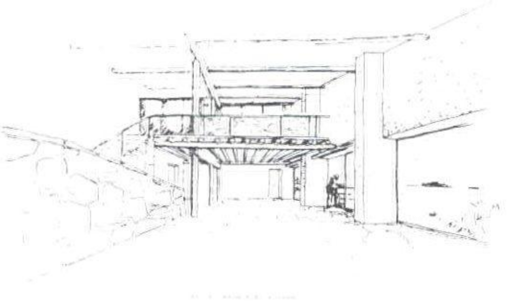

18

Corbusier, *Oeuvre complète 1910–1929*, pp.
–14.

Corbusier, *Oeuvre complète 1910–1929*, p. 31.
cated at 32 rue Godot-de-Mauroy, off
e Boulevard des Italiens, the Café Legendre is now
lled the Café Le Mauroy.

r the most thorough discussion of the Schröder
use in Utrecht, see Theodore M. Brown, *The Work*
G. Rietveld Architect (Utrecht: A. W. Bruna &
on, 1958), pp. 35–74, where he writes that,
cording to Mrs. Schröder, "Le Corbusier visited the
use within a few years of its completion." p. 74.

r the first critical discussion of this project, see my
ticle mentioned in note 26. Le Corbusier makes
ference to this project in Sketchbook E 18, no. 360
saying, "brother's villa roofing in manner of
izeau Tunis." Here he refers to the unexecuted
use designed for Chinubhai Chimanbhai, which
as almost identical with the early design for the
itheesing/Shodhan house. See, Le Corbusier,
euvre complète 1946–1952, pp. 163–64.

The decade of the 1930s and 40s represents a turning point in Le Corbusier's architecture for reasons that are too numerous to list, but mention must be made of the economic depression of the period, his questioning of the supremacy of technology, and his marriage to Yvonne Gallis in 1930. The direction he began to pursue in 1930 found its clearest architectural expression in his designs for houses ranging from the project of the Errazuris house (figure 18) to the Lannemezan house. In them Le Corbusier reestablished a closer relationship with nature, the site, and the vernacular tradition in a manner that recalls his first three houses in La Chaux-de-Fonds.[32] These changes in fact paved the way for the formal and structural innovations made in his later buildings such as the Shodhan house.

As viewed from the point of view of Le Corbusier's later buildings, the decade of the 1930s stands out for an entirely different reason as well: the invention of the sunbreaker, or *brise-soleil*. This device makes its first appearance in 1933 with the project for an apartment house intended for a site in Algiers.[33] But it is only in his design for an office building conceived for Algiers between 1938 and 1942 that Le Corbusier gave it his first imaginative interpretation (figure 49). From this project forward, sunbreakers began to fulfill a number of complex functions in his design, ranging from the utilitarian to the symbolic: they provide protection from the sun, they help give scale and proportion to the building, and they serve as major conveyors of the building's symbolic significance.

In the Shodhan house the sunbreakers act in all of these roles. Dominating the south-west or garden façade of the house and forming an irregular concrete grille, they provide an effective screen against the summer sun without blocking out the winter sun on the most open side of the house (figures 11, 19). They also serve as visual connections between the observer and the house, between inside and outside, between the various parts of the house ranging from the very large to the very small. Most important, however, is the fact that they embody a major part of the personal and cultural significance of the house.

Le Corbusier likened the sunbreaker to a portico as well as to the aperture of a camera.[34] As a portico it acts as a container and definer of human action, and as an opening it links the outside with th inside in a defined and sequential way. A a photographer focuses the camera on a given target, Le Corbusier zeroes in on a specific view by giving a desired apertur and orientation to each concrete frame. Furthermore, if taken together, sunbreakers serve as conveyors of the life pattern that unfolds within the building.

In their role as porticoes, the sunbreaker of the Shodhan house provide a more intimately scaled architectural environmen within the framework of a palatial house they act as houses within a house. As cameras, they focus on the sensuous shape of the swimming pool and the sof grass-filled mound surrounding it; as such, they act as apertures between the angular interior and the soft exterior. Taken together, they convey a playful, spontaneous, almost doll-house like quality, thus effectively counteracting the formal setting. In all three roles, they hel express the function Le Corbusier intended for the house: to be like a "Château of the Loire . . . for an intelligent prince."[35]

On a cultural level, the sunbreakers link the Shodhan house with the architectura tradition of Northern Europe whose asymmetrical, irregular and flexible design elements they incorporate. In a sketch of primitive huts of Ireland published in 1928, Le Corbusier captured these elements by highlighting their structural frame, which in turn foreshadows the sunbreakers of his later buildings (figure 20).[36] More important, however, is the connection between the sunbreakers of the Shodhan house and a more recent manifestation of Northern architecture: d Stijl. As a comparison between Theo van Doesburg's project for an Artist's House of 1923 and the sunbreakers reveals, Le Corbusier incorporated in his design suc de Stijl elements as asymmetry, flexibilit and plasticity (figure 21). In the Shodhan house, however, these Northern element are held in check by the restraining powe of the classical cube, whereas in van Doesburg's project they are expressed more freely. Having always remained a classicist at heart, it is not surprising that in this house, as well as in most of his other buildings, Le Corbusier allowed the Mediterranean rather than the Northern tradition to dominate the design.

Le Corbusier's Mediterranean formalism and Northern flexibility served him well i

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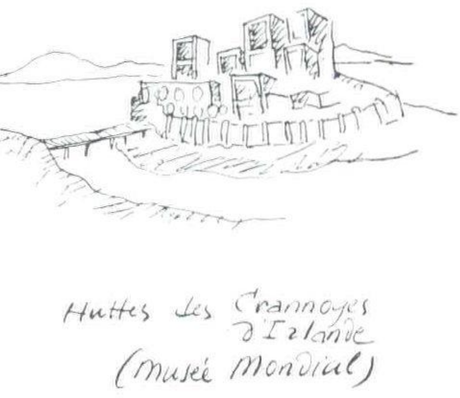
[32] These are, the Villa Fallet, 1906; the Villas Jaquemet and Stotzer, both of 1908. See Charles Jencks, *Le Corbusier and the Tragic View of Architecture* (Cambridge: Harvard University Press, 1973), pp. 21–23.

[35] *Le Corbusier Sketchbooks Volume 3, 1954–1957*, J 39, no. 451.

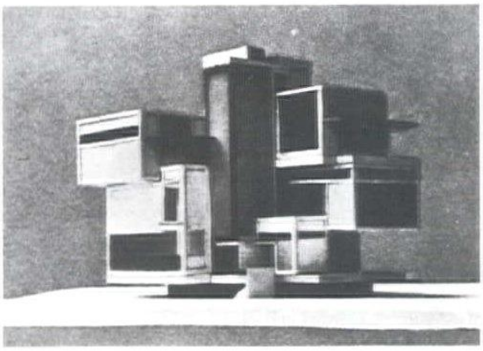
[33] See, Le Corbusier, Oeuvre complète 1929–1934 (Zurich: Les Éditions Girsberger, 1957), pp. 170–173.

[36] For this and other drawings of primitive architecture, see Le Corbusier, *Une Maison–Un Palais*, p. 39.

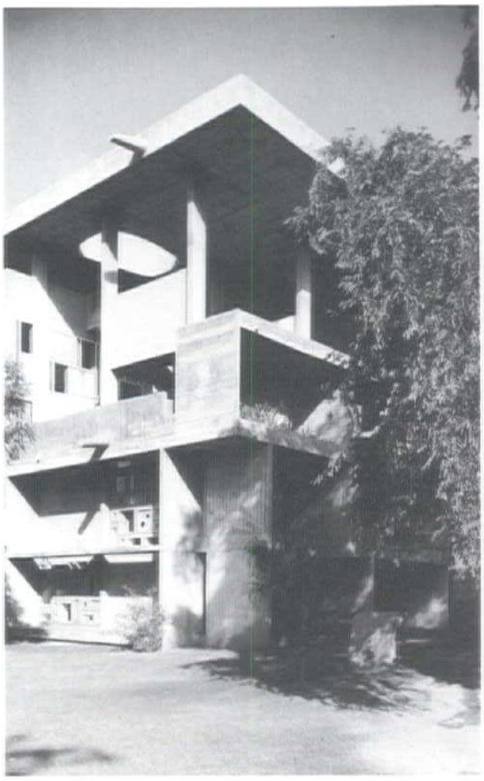
[34] See, Le Corbusier, *Oeuvre complète 1946–1952*, p. 109. For the camera analogy, see Christopher Rand, "City on a Tilting Plain," *New Yorker*, XXXI (April 30, 1955), p. 56.


Huttes des Crannoges
d'Irlande
(Musée Mondial)

20
Le Corbusier, "Primitive Huts, Ireland", drawing.

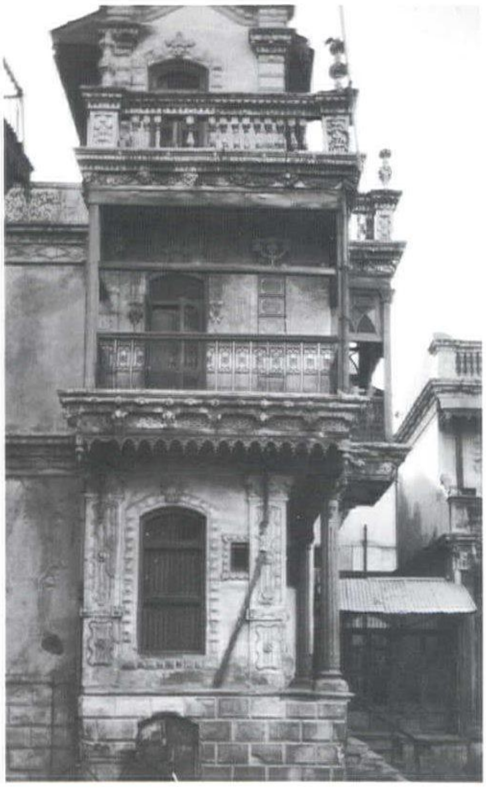


21
Theo van Doesburg, Project for an Artist's House, 1923.



19
Shodhan House.

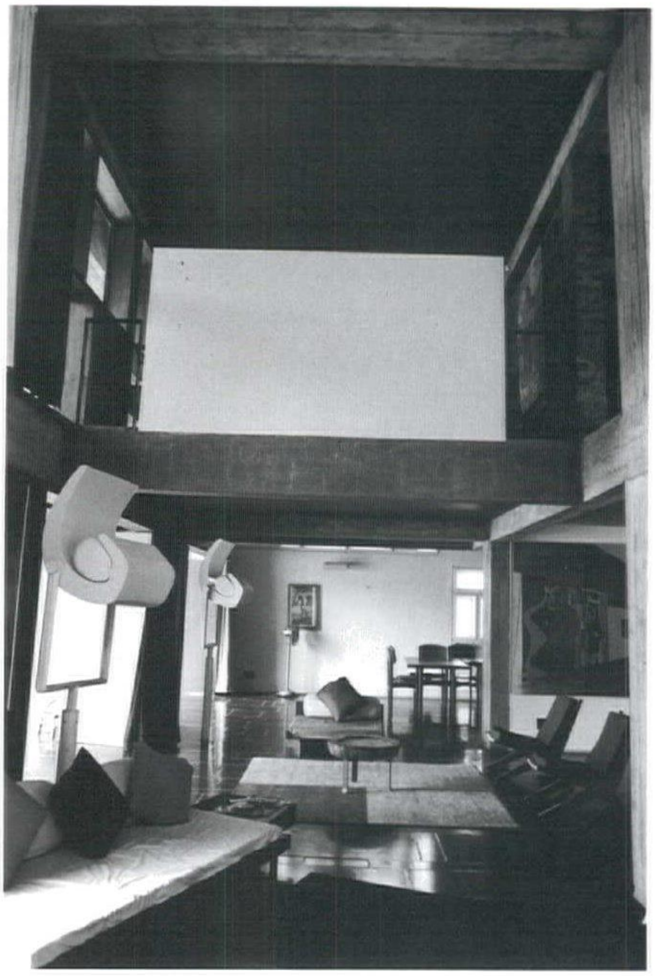
23
Old Shodhan House, Ahmedabad, nineteenth century.



22
Hutheesing Jain Temple, Ahmedabad, 1850.

24
Shodhan House,
Living Room.

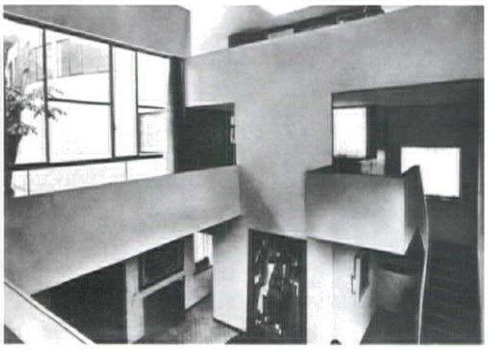
25
Mohanlal Chunilal House,
Ahmedabad, eighteenth
century.



26
Café Legendre (now Café
Mauroy), Paris.

27
Le Corbusier, Pavilion of
L'Esprit Nouveau, Paris, 1925.

28
Le Corbusier, Villa La Roche,
Paris, 1923, Entrance.



India, where both of these cultural traits are manifested in the country's indigenous architecture. In the context of the exterior of the Shodhan house two examples of traditional architecture in Ahmedabad stand out: the Hutheesing Jain temple and the old town house of the Shodhan family (figures 22, 23). The temple was commissioned by the wealthy Jain merchant Sheth Hutheesing, in 1850, and Le Corbusier made reference to it in one of his sketchbooks during his first visit to Ahmedabad.[37] The temple is distinguished by its openness and flexibility, largely achieved by its numerous porches that are grouped around the main hall of worship. Like the sunbreakers and terraces of the Shodhan house of a hundred years later, the porches of the temple offer shade in the summer, sun in the winter, and breezes in every season.

The old town house of the Shodhan family located in the heart of the city provides an interesting clue to an understanding of the client's willingness to accept Le Corbusier's design exactly as it was intended for Surottam Hutheesing. Having been raised in a house which had pilotis, terraces, roof gardens, and open façades, Shyamubhai Shodhan must not have found the designs for the house he was to buy too unusual. Coming from such an architectural environment, he was in fact better prepared to accept Le Corbusier's ideas than a Parisian client. One of the reasons why Le Corbusier's architecture was welcomed by his Indian clients was because they were accustomed to seeing classical buildings that, in addition to being open, are often characterized by irregularity and flexibility. Hence, in evaluating Le Corbusier's success with his Indian clients, the Northern element in his architecture is just as important to bear in mind than its more obvious Mediterranean element.

The focal point of the interior of the Shodhan house consisting of the great double storied living room is also in keeping with Ahmedabad's own architectural tradition (figure 24). The large houses of old Ahmedabad were usually built around a double storied entry hall, or "chowk," which signifies their symbolic and ceremonial center. As seen in the eighteenth-century Chunilal house, this space was given the greatest artistic attention in terms of spatial organization and decorative treatment (figure 25). When Shyamubhai Shodhan first saw the designs for the double storied interiors of his future house, he must have recognized in them a modern reinterpretation of a familiar symbol of status and wealth.

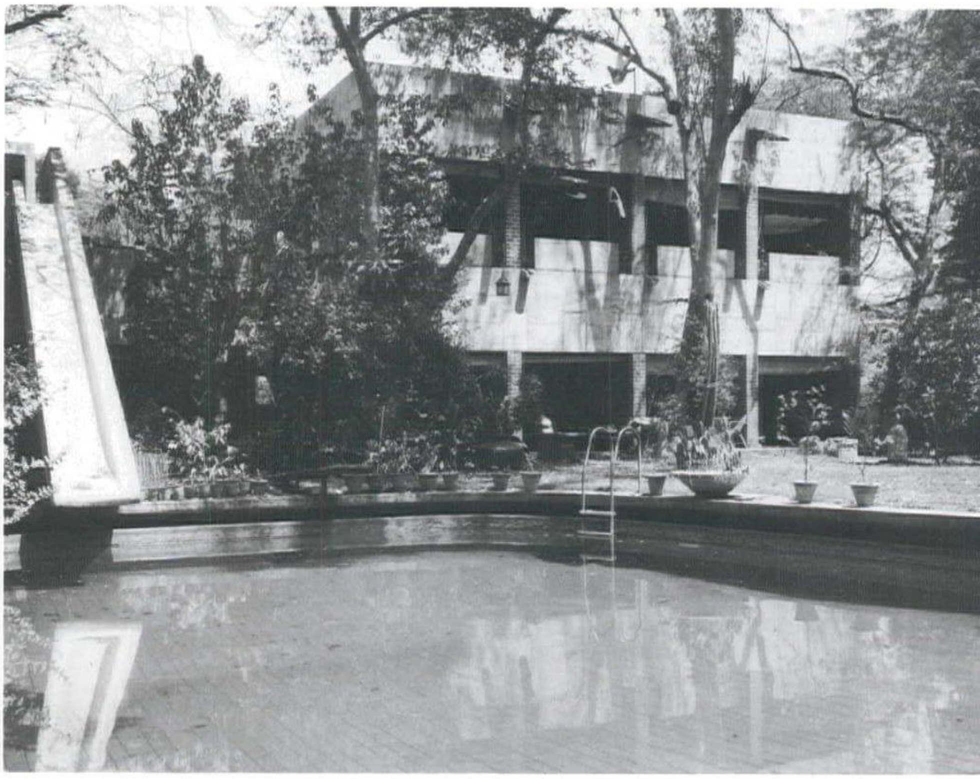
Apart from the coincidental connection between the Shodhan house's living room and the entry halls of Ahmedabad's old houses, the roots of Le Corbusier's double storied space go back to his earlier architecture. As mentioned before, the inspiration for this space, according to the architect, originally came from the Café Legendre, where a balcony provided additional seating space (figure 26). His first literal interpretation of this spatial arrangement occurred in the Maison Citrohan of 1920, whose interior can best be visualized through the Pavilion of L'Esprit Nouveau of five years later (figure 27). As with the Café Legendre, the balcony does not merely connect two parts of the house as in the Villa Schwob, but instead functions as an actual room.

During the 1920s, Le Corbusier gave the double-storied interior space a wide range of interpretations, but the one that stands out in relationship to the Shodhan house is the great entry hall of the Villa La Roche of 1923 (figure 28). Here, as in his later house, Le Corbusier organized the interior volume in terms of polarities that include public and private, formal and informal, and impersonal and personal, allowing each to preserve its discreet identity. In the living room of the Shodhan house the strong contrast between the public level of the main space and the private level of the balcony best exemplifies the architect's polarization of spaces. The balcony, as in the Villa La Roche, functions as the study and den and provides an ideal setting for intimate gatherings enlivened by a striking view of the space below.

The most dramatic part of the house is the triple-storied terrace where Le Corbusier's definition of architecture as "the masterly, correct, and magnificent play of forms in light" was fully realized (figure 19). Created largely in response to Ahmedabad's intense sun, the terrace functions as a major part of the house's natural climate control system by cooling the bedroom units during the day and serving as bedrooms during hot summer nights. Beyond this, it provides a stage where man, architecture, and nature meet as active partners. Following a precedent established in the recessed terraces of the Immeubles-Villas project of 1922, and first realized in the Villa Stein-Monzie of

7
e Corbusier Sketchbooks Volume 2, 1950–1954, E
3, no. 357.

29
Le Corbusier, Sarabhai House, Ahmedabad, 1951-55.



1927,[38] Le Corbusier created a setting here where nature is invited to penetrate the body of the house through light, air, and water while being compelled to respond to the power of architectural form to shape nature. In the midst of this orchestrated interaction between architecture and nature, Le Corbusier engages the observer as an active participant so that he/she can develop a heightened awareness of the experience of living.

As Le Corbusier's most ambitious example of domestic architecture, the Shodhan house represents a highly complex synthesis of forms and spaces that resulted from a long process of selection, absorption, and transformation. Although the constituent elements of his architecture have undergone major changes to suit new functions and express new meanings, they have retained their original identity. As the Shodhan house's double-storied living room illustrates, the key formal solutions that Le Corbusier developed during the 1920s have remained an essential part of his late work. Yet notwithstanding the continuity of such forms and spaces, their characteristics and qualities have changed dramatically over the years. As a comparison between his houses of the 1920s and the 1950s indicates, the frail, transient and uprooted qualities of the former were reshaped by Le Corbusier into the strong, durable and rooted qualities of the latter. This process was in no small measure reinforced by his encounter with India, where he found the right cultural and climatic setting for strengthening the direction he had initiated in the 1930s.

The second house Le Corbusier built in Ahmedabad was commissioned by Mrs. Manorama Sarabhai in March 1951, who, after the death of her husband, wanted a secluded place for herself and her sons aged ten and thirteen.[39] The site chosen for the house was a tree-filled area on the large Sarabhai estate located in the Shahibag district of the city. In response to the site and his client's needs and personality, Le Corbusier designed an open and flexible house whose spatial organization was determined by its dual function: to provide maximum comfort for adults and children alike. To this end, he planned a double-storied block for Mrs. Sarabhai and a single-storied block for her children; these blocks, although adjoining, are divided by a built-in carport and a slide (figure 29). The exterior of these blocks are defined by load-bearing concrete walls, while their interior is organized in terms of parallel bays crowned by low concrete barrel vaults (figures 30, 31). This structural solution ingeniously combines both of Le Corbusier's

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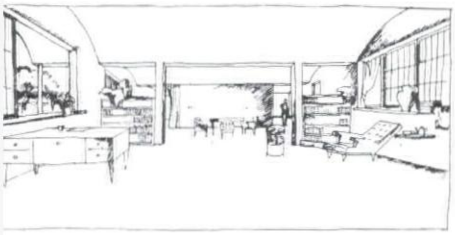
[38] For the Immeubles-Villas project, see Le Corbusier, *Oeuvre complète 1910–1929*, pp. 40–43, and for the Villa Stein-Monzie, pp. 140–49.

[39] *Le Corbusier Sketchbooks Volume 2, 1950–1954*, E 18, no. 361 and E 23, no. 689.

approaches to domestic architecture by utilizing the angularity of the Maison Citrohan for the exterior and the undulating quality of the Maison Monol for the interior (figures 13, 32).

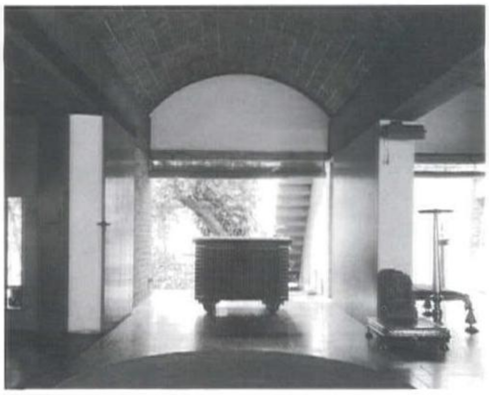
By giving the Sarabhai house a hard, angular exterior and a soft, undulating interior, Le Corbusier juxtaposed what for him represented the masculine and feminine characteristics in architecture, without allowing each to lose its identity. To this end, he visually separated the exterior shell from the interior so that when seen from the outside the "feminine" interior seems incomprehensible, and when seen from within the "masculine" exterior becomes unintelligible. The separation between the two is reinforced by the materials and colors: mostly grey concrete on the outside and mostly red brick and multicolored on the inside. For a house intended for a widow with two sons, the architectural imagery embodying the male/female correlation seems most appropriate, especially the way in which it was handled by Le Corbusier. Unlike the Shodhan house, whose masculine exterior is as important as its equally masculine interior, in this house everything emanates from within making the feminine interior the *raison d'être* of the house. No wonder that its masculine exterior is reduced to a quasi-autonomous shield which, to be sure, offers some physical and psychological protection to the interior without, however, interfering with it.


32
Le Corbusier, Project for Maison Monol, 1919.

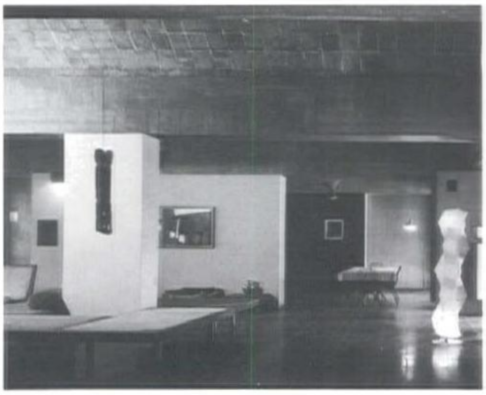
The focal point of the interior is the open multipurpose public space which occupies most of the first floor of the main part of the house (figures 30, 31). Serving as a living/dining room and hall, this space is defined by low tile vaults resting on exposed concrete beams, which in turn are supported by brick walls that are either exposed or covered by plaster or plywood. To add to this rich orchestration of materials, Le Corbusier used the three primary colors, plus black and white, for the walls covered by plaster. Hence each major part of the interior stands out as a visually, if not necessarily structurally, independent element. But to counteract this, he forged a spatial connection among the bays and between the inside and outside so as to achieve a greater sense of openness. To gain a clearer understanding of this spatial and formal organization, we must examine, however briefly, some of its sources.

As we have seen, the interior of the

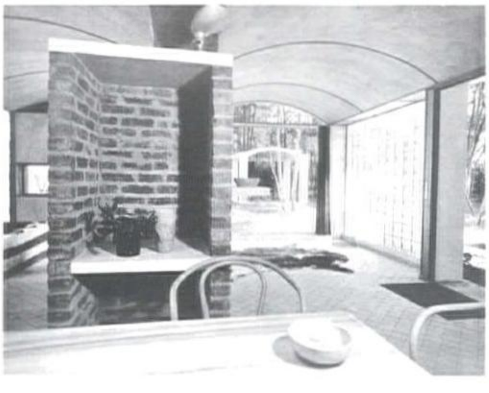
30
Sarabhai House, Entrance Hall.



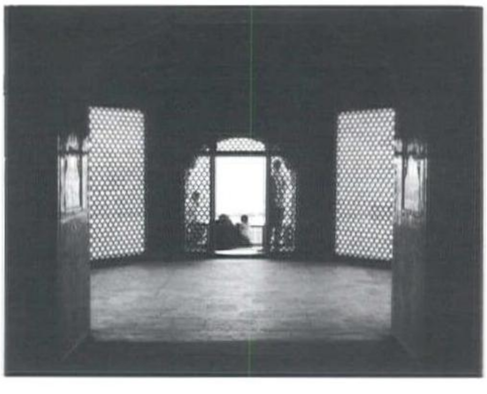
31
Sarabhai House, Living Room.



33
Le Corbusier, Weekend House, Celle-St. Cloud, near Paris, 1935.



34
The Red Fort, Royal Apartments, Delhi, 1639-48.



Sarabhai house grew out of the project for the Maison Monol, which was planned as an earth-hugging structure with an undulating concrete roof held up by concrete columns (figure 32). The first built version of this project was designed by Le Corbusier in 1935 for a suburban site in Celle-St. Cloud, near Paris (figure 33).[40] This weekend house represents the most important link between the Maison Monol and the Sarabhai house largely because of the way in which the architect handled its form, space and materials. As in the Monol house, the space is anchored to the ground by low barrel vaults, yet the interaction between inside and outside is far greater here than in its prototype. These spatial characteristics were further developed in the Sarabhai house where they acquired a sense of sheltered openness. In terms of form, the weekend house offers striking juxtapositions between the angular and curvilinear and between the smooth and the rough, yet the greatest amount of contrast is to be found in the handling of materials. Such diverse materials as concrete, stone, brick, glass, and plywood are placed side by side so as to give each constituent part of the house a high degree of independence. This brings us only a short step away from the Sarabhai house where space, form, and materials are juxtaposed in an even more uncompromising manner.

The role fulfilled by the weekend house in preparing the way for the Sarabhai house is comparable to that played by the Lannemezan house in relationship to the Shodhan house. The spatial and formal innovations made in both of these "transitional" houses greatly facilitated Le Corbusier's encounter with India where he was compelled, more than before, to respond to conditions set by nature. It is not surprising therefore that the weekend house's low, earth-hugging form, channelled space and roof garden reappear in the Sarabhai house where they were eminently suited to the prevailing climate.[41] This leads to the question of whether the Sarabhai house was at all inspired by India's traditional architecture.

A comparison between the Sarabhai house and the royal apartments of Delhi's Red Fort shows that both are low, dark and sheltered architectural environments which shut out the summer sun yet let in the cooling breezes. Moreover, both spaces are primarily intended for the sitting position (figures 30, 34). Yet the close kinship that exists between these two interiors is not necessarily the result of a direct influence coming from India's own architectural tradition, instead, it is large the outcome of a long creative process that was decisively shaped by the natura and built environment of the Mediterranean world.[42] What India did offer to Le Corbusier was the right climatic and cultural setting for bringing his Mediterranean style to a full fruition.

If the formal and spatial qualities of the Sarabhai house are Indian only by coincidence, is there anything about the house that can be called uniquely Indian? It is its naturalness. And this is precisely the quality that is so greatly valued by the followers of the Jain religion. The belief in the overriding importance of nature constitutes in fact a central tenet in Jainism. This is most eloquently manifested in the avowed commitment not to harm any living being and to interfere with nature as little as possible. In the Sarabhai house, Le Corbusier paid a profound tribute to Jain beliefs by making it his most natural house.

In the concluding lines of *Le Poème de l'angle droit* (1955), Le Corbusier writes:

> With a full hand I have received
> With a full hand I give[43]

No better words than these can sum up what Le Corbusier and Ahmedabad owe to each other, for what he created there is just as much the result of his clients' vision as it is of his genius. Whether the intention was to enrich the cultural life of the city or the personal life of a client, it took courage and insight to engage Le Corbusier in the process of restoring Ahmedabad's eminence in the cultural life of India. The most immediate effect of the reciprocal relationship between Le Corbusier and his Ahmedabadi clients was that it made the city aware that modern architecture can be used as a means to express its aspirations. Those who benefited from this were India's own younger architects, most notably Achyut Kanvinde of New Delhi, Balkrishna Doshi of Ahmedabad, and Charles Correa of Bombay, who later became the country's foremost architects. Thanks to the patronage they received in Ahmedabad from the mid-1950s on, they built some of their finest buildings there, making the city the birthplace of India's indigenous modern architecture.

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[40] See Le Corbusier, *Oeuvre complète 1934–1938* (Zurich: Les Éditions Girsberger, 1958), pp. 124–30.

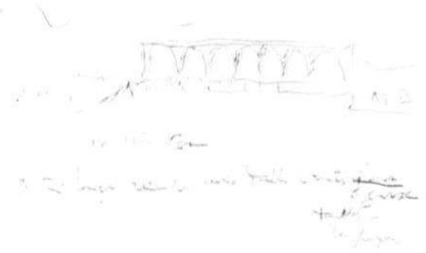
[41] Although a discussion of the roof-garden of the weekend house lies outside the scope of this paper, it should be noted that it is there that Le Corbusier began to treat the roof-garden as a more freely landscaped space. This new direction was given its fullest manifestation in the roof-garden of the Sarabhai house.

[42] In the context of the Sarabhai house the folk element of the Mediterranean tradition stands out. For earlier manifestations of this element in Le Corbusier's architecture, see his project for the Peyrissac house, near Cherchel, Algeria, 1942 (*Oeuvre complète 1938–1946*, pp. 116–123), which is an important link between the weekend house and the Sarabhai house; and the projects for La Sainte-Baume, near Marseilles, 1948, and Roq and Rob, Cap Martin, 1949 (*Oeuvre complète 1946–1952*, pp. 24–36 and pp. 54–61, respectively).

[43] Translation by Mary Patricia May Sekler, in "Ruskin, the Tree and the Open Hand," *The Open Hand: Essays on Le Corbusier*, ed. Russell Walden, p. 73.

However important Le Corbusier's work is in Ahmedabad, it was Chandigarh that brought him to India, and it was there that he created his most profound architectural statements. Thanks to the pioneering work of a number of scholars, it is possible today to offer a brief evaluation of Le Corbusier's achievement there without doing injustice to the subject.[44]

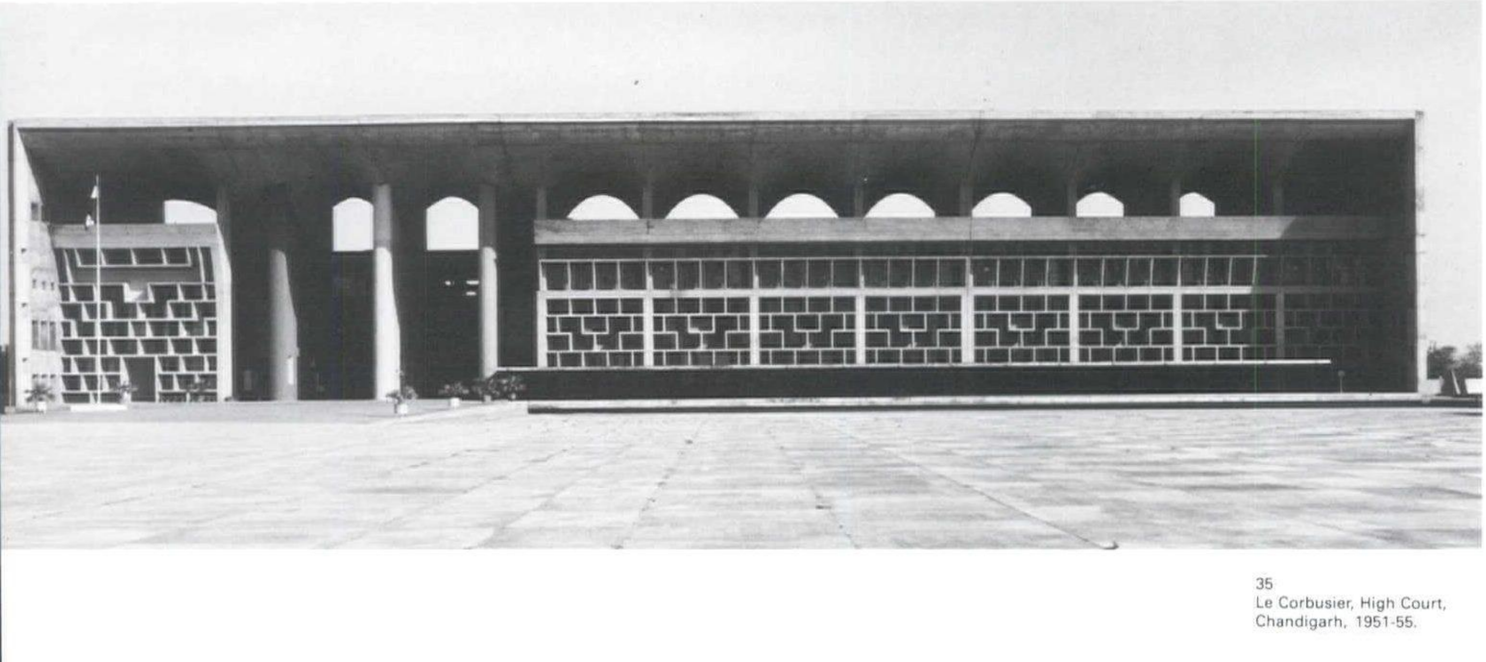
As indicated earlier, Le Corbusier was invited by the representatives of the Punjab government to become the architectural advisor of Chandigarh. In this capacity he was primarily responsible for the master plan of the city and the capitol complex. Later he undertook to design a major portion of the business center and a few additional buildings for the city.[45] My discussion will only focus on a few salient characteristics of the executed buildings of the capitol complex: the Secretariat, the Assembly Building, and the High Court serving the executive, legislative and judiciary branches of government.[46]



36
High Court, 1951 sketch.

The first of these to be erected was the High Court which is a concrete structure defined by a large rectangular frame within which the different functions of the building are inserted from the highest court on the left to the lowest on the right (figure 35). The significance of the Supreme Court is underscored by its separation from the rest by a giant portico whose massive pillars are painted green, yellow, and red. Clues to an understanding of the nature and meaning of this building can be found in its sources and the development of its design.

The first sketch of the High Court that appears in Le Corbusier's sketchbooks shows that he envisaged the building as a monumental vaulted structure set against the backdrop of the Himalayas (figure 36).[47] The spatial and formal configuration



35
Le Corbusier, High Court, Chandigarh, 1951-55.

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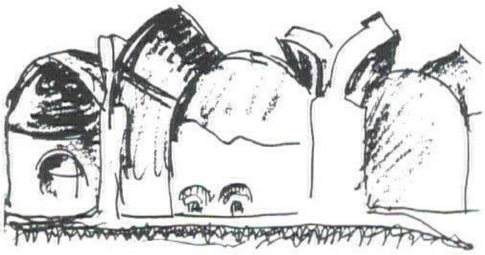
e most important scholars include: Norma enson, Stanislaus von Moos, Mary Patricia May kler and Alexander C. Gorlin. For Evenson and von oos, see note no. 2; for Sekler, see note no. 43; and Gorlin, "An Analysis of the Governor's Palace of andigarh," *Oppositions 19/20* (Winter/Spring, 30), pp. 161–183.

ese are: The Museum and Art Gallery with the acent Lecture Hall (1964–68); School of Art 64–69); School of Architecture (1964–69); Boat b on Sukhna Lake (1963–65). For the best strations of these and the Business Center, see *Le rbusier: Last Works*, ed. Willy Boesiger (New York: eger Publishers, 1970).

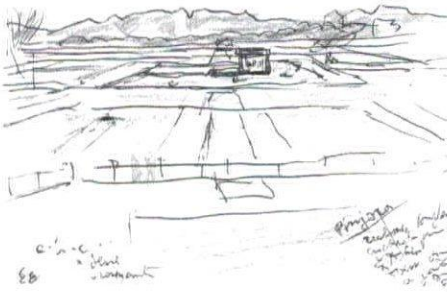
e original plan of the capitol complex also included Governor's Palace, which was abandoned and laced by the Museum of Knowledge in 1960. The seum has not yet been built. In addition to the ldings, Le Corbusier also planned certain numents for the capitol complex, which are: The nument of the Open Hand, The Tower of Shadows ch the Trench of Consideration and the Monument the Martyrs of the Indian Partition. Only the last e has been built so far. See *Le Corbusier: Last rks*, pp. 64–75, and Gorlin and Sekler, *op. cit.*

Corbusier Sketchbooks Volume 2, 1950–1954, E. no. 391.

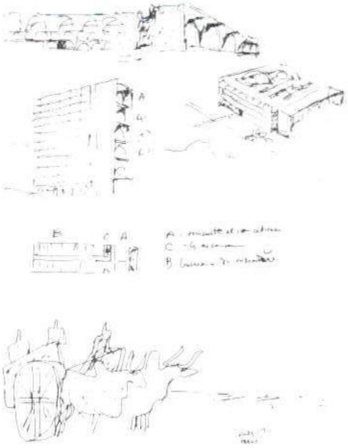
37
Le Corbusier, sketch of the Basilica of Constantine, Rome, fourth century A.D.



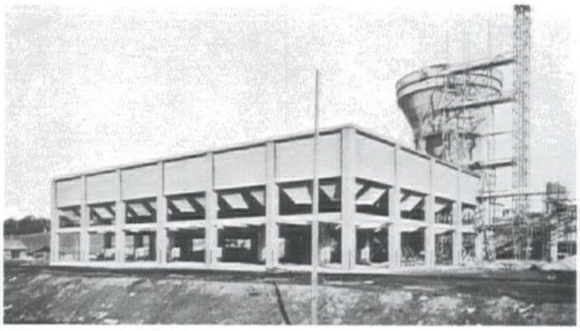
38
Le Corbusier, sketch of the Pinjore Gardens, near Chandigarh, seventeenth century.



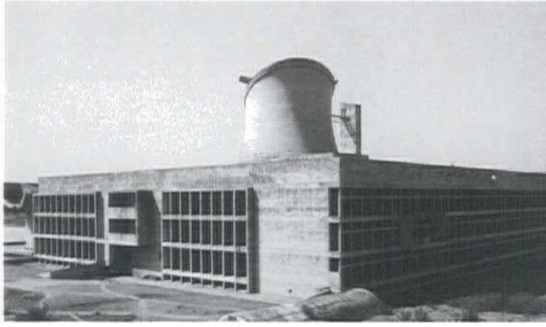
41
Le Corbusier, sketch of Assembly Building and Secretariat, 1951.



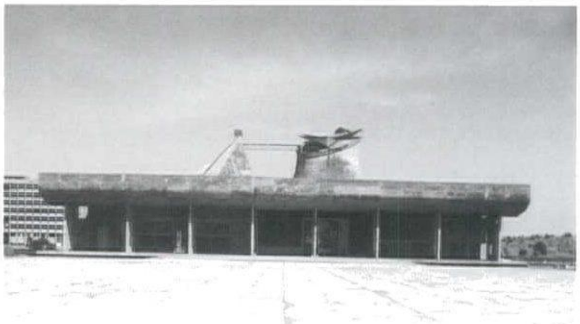
44
Coal washer under construction, Sté. des Mines de Carmaux, France, by Züblin, 1928-29.



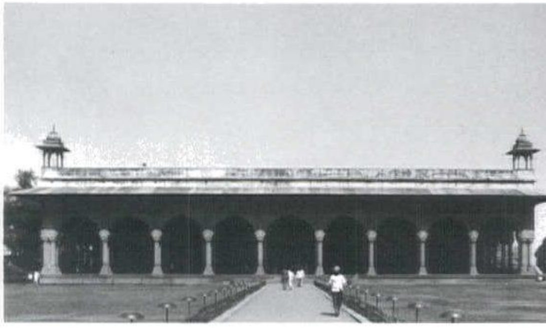
40
Assembly Building, rear view.



39
Le Corbusier, Assembly Building, Chandigarh, façade.



42
The Red Fort, Diwan-i-Am, (Hall of Public Audiences), Delhi, built by Emperor Shah Jahan between 1639 and 1648.



proposed here recalls two buildings the architect sketched fifty years apart; the first representing the Basilica of Constantine and the second the pavilion of the Pinjore gardens (figures 37, 38). Appearing next to the High Court in his sketchbook, the sketch of the pavilion and its surroundings sets the stage for the siting of the capitol complex and the spatial relationships established in it.[48] As the pavilion, the High Court is placed in a wide open space linking the mountains with the observer. Although the position intended here for the High Court was soon given over to the Governor's Palace, Le Corbusier retained in the completed building the sense of isolation inherent in the sketch. In fact, a comparison between the High Court and the pavilion of the Pinjore gardens shows that the isolation of Le Corbusier's building is far greater than that of the pavilion. As in most Mogul palace gardens, the individual buildings at Pinjore are interconnected by landscaped processional spaces unmarred by overscaling. Le Corbusier, on the other hand, not only overscaled his processional spaces but he also replaced landscaping with paving, thus forcing the High Court into an even greater sense of isolation (figure 35). The High Court, more than the Assembly and the Secretariat, became in fact the victim of Le Corbusier's heroic attempt to fuse Parisian scale with Mogul processional spaces. But mating the two without the mitigating power of Mogul landscaping resulted in failure.[49]

If the Pinjore gardens gave the impetus for the initial siting of the High Court, it was the Basilica of Constantine as sketched by Le Corbusier during his first visit to Rome in 1911 that provided the point of departure for the design of the building (figures 36, 37). As can be seen from his early sketches, Le Corbusier used the great barrel vaults of the Basilica as the most dominant element in his preliminary designs.[50] However, as the building evolved in his mind, the importance of Constantine's law court gradually diminished to give way to influences emanating from the North. Hence in the final design the lower parts of the massive Roman vaults were largely replaced by sunbreakers whose irregular concrete grille was inspired by de Stijl architecture (figures 35, 21).

The façade of the High Court, consisting of a flexible framework of sunbreakers placed within a single monumental frame, sheds an important light on the symbolic significance of the building. As a classicist at heart and as a citizen of a country whose law still reflects the basic principles of Roman law, Le Corbusier first turned to a great example of judicial Roman architecture whose most essential elements he retained even in the final design. He did so by joining the Basilica's arcuated and trabeated system in the building's exterior frame. By placing all the law courts within this all-embracing Roman frame, Le Corbusier reaffirmed the fundamental role that Roman architecture and Roman law have played in Western culture. Moreover, by imbuing the building in general and its great frame in particular with clarity, constancy, and logic, he gave the High Court a sense of majestic unity. And it is precisely such a unity that constitutes the essence of Roman architecture and Roman law.

Yet within the High Court's formal, classical frame Le Corbusier allowed the sunbreakers to act more freely and flexibly in keeping with the architectural tradition of the North. He did so not only to provide better protection from the sun and give scale to the building but also to convey a major part of the building's symbolic significance. Although Roman law remained the primary basis of Western law, it was English common law that was brought into India by the British. As opposed to the codified law of Rome, common law was developed in England gradually and organically since the early Middle Ages. Based on custom and precedent, this law is known not for constancy and logic but rather for variety and flexibility. And these are precisely the qualities that characterize the sunbreakers of the High Court's façade.

In the High Court Le Corbusier juxtaposed the Mediterranean and Northern traditions of architecture by making the former the anchoring point and primary frame of reference of the building without, however, minimizing the prominence of the latter. He embodied the Mediterranean tradition primarily in the clarity and constancy of the building's monumental frame, while he expressed that of the North in the variety and flexibility of the sunbreakers. In so doing, he created architectural forms that possess the very same qualities that characterize Roman law and English common law: majestic unity and organic quality, respectively. Hence in the High Court the two great systems of Western law, Roman civil law and English common law find, unwit-

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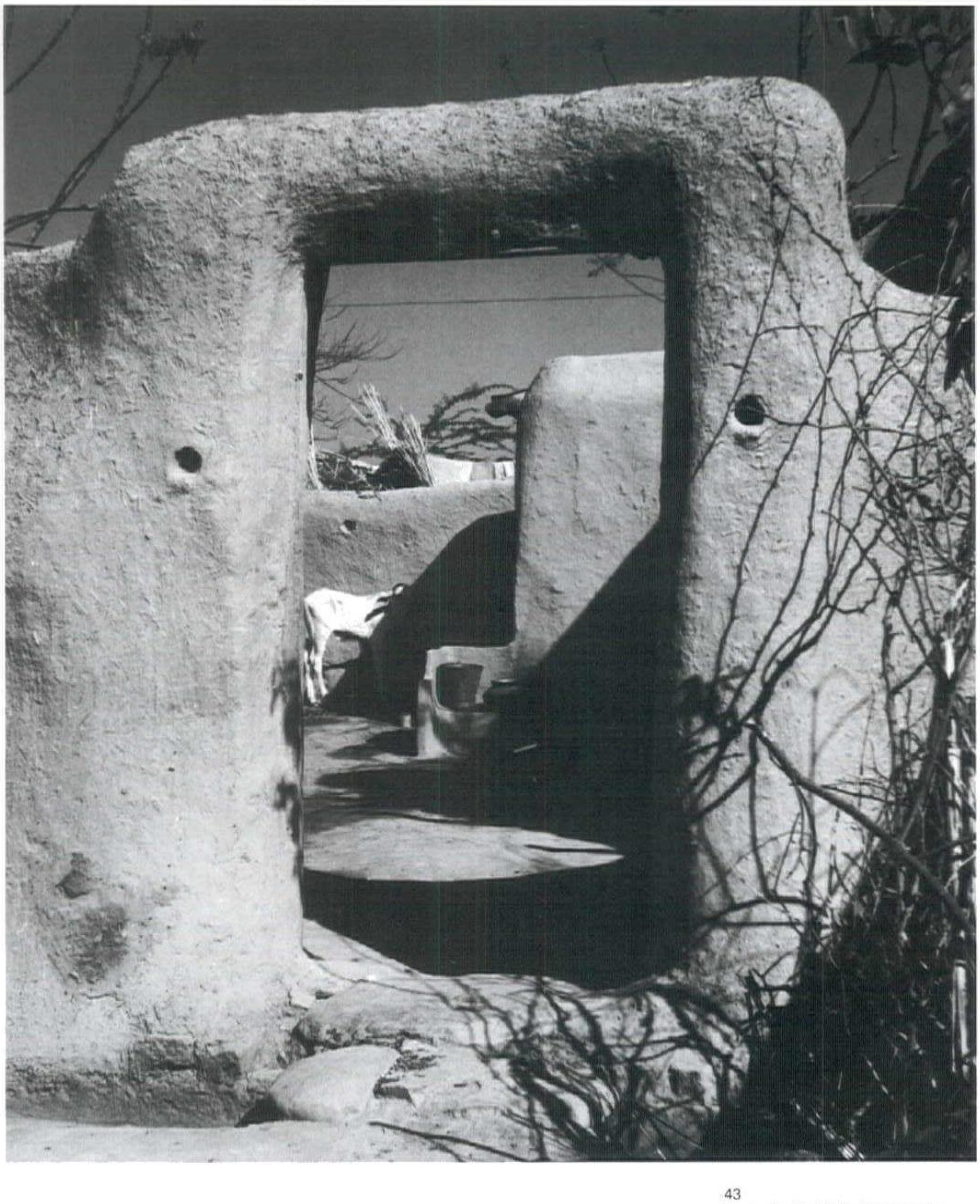
Corbusier Sketchbooks Volume 2, E. 19, no. 392.
e Pinjore gardens date from the 17th ntury and are located ten miles from Chandigarh at e foothills of the Himalayas. The Patiala gardens to hich Le Corbusier makes reference here are the radari gardens in Patiala, which he visted on bruary 25, 1951.

owever, Le Corbusier applied the principles of Mogul ndscaping in general and that of Pinjore in rticular to the project for the garden of the *overnor's Palace*. See Le Corbusier, *Oeuvre mplète 1946–1952*, p. 143.

additional early sketches of the High Court, see Le rbusier, *Oeuvre complète 1946–1952*, p. 126.



43
House in Punjabi village, near Chandigarh.

tingly perhaps, a most eloquent visual interpretation.

Facing the High Court across the 400 meter wide capitol square is the Assembly whose exterior consists of three main elements: a square block, a portico and a superstructure, each of which has a distinct identity of its own (figures 39, 40). As early sketches of the Assembly indicate, Le Corbusier first envisaged it as a great arcuated building evoking the memory of such Roman structures as the Basilica of Constantine and the Pont du Gard (figures 41, 37).[51] But as the building evolved in his mind, the arcuated system was replaced by a trabeated system exemplified largely by a regular grille of sunbreakers.

The sources of the three main constituent elements of the Assembly's exterior provide important clues to an understanding of the nature and meaning of the building. Enfronting the building is the monumental portico whose most dominant feature is the upward swooping curvilinear canopy that functions both as an umbrella and gutter. This canopy rests on eight tautly stretched walls that cut the portico into clearly defined cubical bays whose distinctness is reinforced by the compositional organization of the back wall. The climactic point of this wall is the large enameled ceremonial door twenty-five feet square, which depicts a complex set of images dominated by the sun.

The Assembly's monumental portico incorporates the spatial and formal qualities of two distinctly different strains of India's architectural past: the palatial and the folk. As a comparison with the Red Fort's Hall of Public Audiences shows, the repetitive rhythm, the sheltered openness and the ceremonial dignity of this Mogul palatial building reappear in Le Corbusier's portico (figures 39, 42). However, the surface treatment of his forms, whether in the Assembly's portico or in his other concrete buildings in India, shows a greater affinity to the country's folk architecture. He was fond of visiting the villages around Chandigarh to study their low, moundlike huts constructed of mud brick; visits that found their way into his handling of rough concrete, or *bêton brut* (figure 43). Even before his contact with India, Le Corbusier was fascinated by the possibility of making concrete look more like a natural material, and his work there greatly enhanced this process.

Le Corbusier reinforced the meaning of the portico by the enameled doorway that links the outside with the columnar lobby. The primary function of this door is to provide a ceremonial entryway for the governor when he opens the assembly once a year. Both sides of the door are decorated with a rich range of images that convey multiple meanings. The door's pictorial composition facing the portico is divided into two halves: the upper, representing the paths of the sun, and the lower, representing rivers, vegetation, and animals; and both are interpreted in a spontaneous, almost childlike, manner. Hence, the function and scale of the ceremonial doorway convey a formal and ritualistic order, while the imagery on its surface evokes the world of fantasy and folklore.[52] And both of these meanings are inherent in the portico.

Treating the great portico as a gateway to the building that houses the two legislative bodies of the Punjab government–the assembly and the governor's council–it is fitting that Le Corbusier incorporated in it a broad range of India's architectural tradition: from the stately and ritualistic to the informal and rustic. In so doing, he expressed in it, unintentionally perhaps, some of the most salient characteristics of Indian society.

The main body of the Assembly Building is defined on three sides by large grilles of sunbreakers arranged in repetitive rows. This organization reveals the nature of the spaces that lie behind them: scores of offices and committee rooms serving the members of parliament and their staff (figure 40). On top of the Assembly's classical block is a superstructure which consists of three separate yet interrelated parts: a tower in the shape of a hyperbolic-paraboloid, a tilted pyramid and a service tower (figure 39). The basic function of the first is to provide light for the assembly hall and that of the second to help illuminate the council chamber. The relationship between the hyperbolic tower and the main body of the building evokes the memory of French industrial architecture as exemplified by Züblin's coal-washer in Sté. des Mines de Carmaux of 1928–29 (figure 44). The Assembly's tower, like the funnel-shaped receptor of the coal-washer, is dramatically juxtaposed with the main part of the building producing a strong sense of tension between the two. Juxtaposing

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Corbusier referred to the Pont du Gard as "among e very great works of architecture, and going far yond mere mathematical formulae." Le Corbusier, *e City of Tomorrow* (Cambridge: The M.I.T. Press, 71), p. 57.

r a discussion of other aspects of the door's mbolic significance, see Richard A. Moore, lchemical and Mythical Themes in the Poem of the ght Angle 1946–1965," *Oppositions 19/20* inter/Spring, 1980), pp. 111–39, esp. pp. 129–32.

a building's constituent parts in such a manner is not uncommon in industrial architecture but is quite exceptional in an honorific building. In fact, one of the most remarkable qualities of the Assembly is the daring contrasts created by Le Corbusier among the building's three major parts: the portico, the main block, and the superstructure. Without his deep admiration for the compositional solutions established in industrial architecture, this could hardly have been accomplished.[53]

The striking contrast between the Assembly's main block and the hyperbolic tower tends to suggest that the two are not functionally interrelated. Yet a closer examination reveals that the building's crowning feature is in fact a continuation of the large hyperbolic shell that serves as a container for the assembly hall (figure 45). As Le Corbusier's sketch of June, 1953 shows, the inspiration for this shell came directly from the cooling towers of the Sabarmati Power Plant in Ahmedabad (figure 46).[54] By using the form of the cooling towers for both the interior shell and the protruding part of the assembly hall, Le Corbusier not only preserved the building's consistency but also reinforced a key aspect of the building's symbolic significance.

In the Assembly's interior the building's underlying theme of juxtaposing quasi-autonomous architectural elements is best exemplified in the way in which the hyperbolic shell of the assembly hall is related to its setting. Instead of treating this shell as a continuous part of the interior, Le Corbusier handled it as a building within a building (figure 47). He did so by placing it inside a large hypostyle hall known as the forum, which in turn is surrounded by offices facing the outside. As a result, the assembly hall is just as clearly separated from the rest of the interior as the assembly's tower is from the rest of the exterior, thus ensuring consistency in the building's formal organization.

On a symbolic level, the isolation of the hyperbolic shell highlights the importance of the legislative assembly. Following the parliamentary system inherited from the British, the assembly, as the Lower House in Britain, enjoys a prime decision making power in the government. Le Corbusier gave this political reality a powerful architectural interpretation by making the hyperbolic shell the focal point of the interior and the crowning point of the exterior. In so doing, he not only expressed the nature of the legislative assembly's power in Chandigarh, but also proclaim the role that the Lower House fulfills within a parliamentary system. In fact, never before has the role of the Lower House been given such a forceful and el quent architectural interpretation as in L Corbusier's Assembly Building.

However, the inspiration emanating from the cooling towers of the Sabarmati Power Plant served Le Corbusier in othe ways as well. With its obvious reference to technology, the image of the cooling towers offered him an opportunity to pa tribute to one of Prime Minister Nehru's most fundamental beliefs summed up in one of his lectures: "the essential and most revolutionary factor in modern life not a particular ideology, but technological advance."[55] Nehru put these general principles into practice by establishing a five year plan whose primary aim was to develop industry and produce electricity on a large scale. Thus, the cooling tower of an electric power plant must have seemed to Le Corbusier a particularly ap propriate symbol for expressing the soci and political aspirations of his friend and patron. As a Ruskinian at heart, he may even have believed that by placing the legislators in an architectural environment that strongly resembles the coolin towers of a power plant, he could influence them to follow Nehru's commitmen to technology.

The Assembly's conspicuously visible symbol of technology should not give th impression that Le Corbusier paid tribute to only one of India's great modern leaders, for in addition to Nehru, Gandhi's presence can also be found in the building. Gandhi's philosophy of rejecting technology and focusing on the importance of agriculture, handicraft and cottage industry finds many direct and indirect references in the Assembly. The hand made quality of the *bêton brut*, the folk imagery on the ceremonial gateway, the wall decorations based on imprints made by the workmen, and the juxtapos tion of the oxcart with the building in on of his sketches (figure 41) all attest to a world view that shared a great deal with Gandhi's own. For Le Corbusier, Gandhi's philosophy of rural rejuvenation offered felicitous balance to Nehru's technologic bias, and how he agreed with both can b seen in two statements he made in his

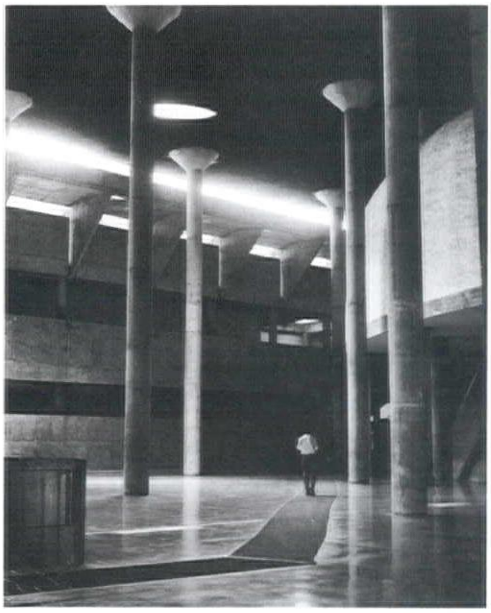
[53] **Le Corbusier's reliance on the compositional solutions found in industrial architecture was preceded by the work of many architects, most notably by the Russian Constructivists.**

[55] **Stanislaus von Moos, p. 418.**

[54] **For the sketch, see Le Corbusier, *Oeuvre complète 1957–1965*, p. 80.**

oling Towers of the
barmati Power Plant,
medabad.

sembly building



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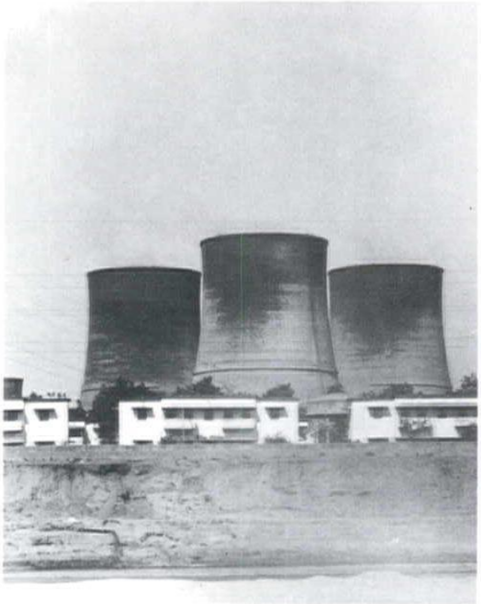

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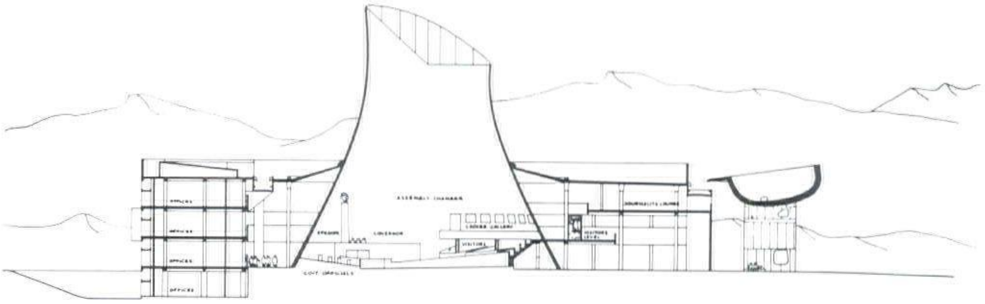

sembly building, section.

early Indian sketchbooks: "Atomic energy is now a fact. Put it in the countries and in the homes." But elsewhere he wrote: "how the earth remains a primary, primeval, primitive in spite of the works of Men."[56] And one of Gandhi's aims was to keep it that way.

The Assembly Building represents a culmination of Le Corbusier's heroic efforts to give the most meaningful architectural interpretation to political institutions. This effort has a long history in his own career going back to his projects for the League of Nations Building of 1927 and the Palace of the Soviets of 1931. In the former he combined Beaux-Arts composition with a technologically perfected structural system, while in the latter he allowed technology to triumph throughout the entire design. Intended for an international political body of the modern world, it is fitting that Le Corbusier imbued his project for the League with a sense of history and modernity. And by giving technology such a prominent presence in the Palace of the Soviets, he highlighted one of Soviet Russia's most deeply felt ambitions: to achieve technological superiority in the world. But to express the social, political and economic aspirations of newly independent India, Le Corbusier not only had to invent new forms but he also had to develop a new formal organization that could convey architecturally the complexity of the issues at hand. He did so by turning to India's rich past and evolving present while fertilizing these with his own creative memory. No wonder that the Assembly became one of the most probing and compelling architectural manifestations of the human spirit.

Looming behind the Assembly, the Secretariat is an eight-hundred feet long concrete slab consisting of six, eight story blocks interconnected by a massive grille

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**Corbusier Sketchbooks Volume 2, 1950–1954, E
, No. 662 and E 18, No. 361.**

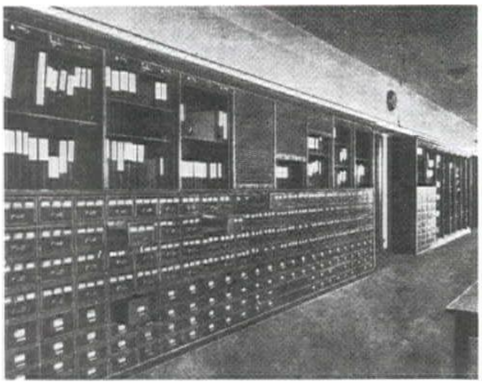
of sunbreakers (figure 48). Originally, Le Corbusier had envisaged it as a highrise building, but when this was rejected he proposed the present solution. As an early sketch of the building shows, the architect first visualized it as a tall concrete slab defined by arches on its narrow ends (figure 41). In a more developed design, he presented it as an even taller slab resting on pilotis and sheathed by a repetitive grille of sunbreakers.[57] The project that links this design with the final version is his Admiralty Building planned for Algiers between 1938 and 1942 (figure 49).

Intended as an office building and hotel for Algiers' marine district, the Admiralty represents a major point of departure in Le Corbusier's approach to skyscraper design. Here he abandoned his earlier skin and bone technique in favor of achieving firmness, scale and functional clarity. This dramatic change is directly attributable to his encounter with the skyscrapers of New York in 1936. In his account of his American journey he wrote:

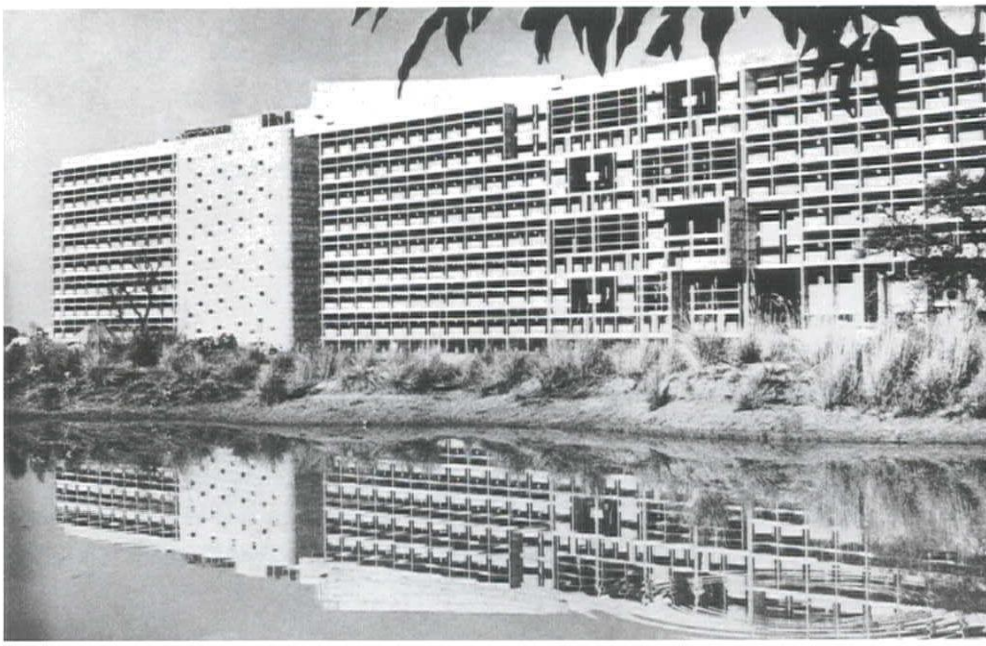
> In New York, then, I learn to appreciate the Italian Renaissance. It is so well done that you could believe it to be genuine. It even has a strange, new firmness which is not Italian but American! The maritime atmosphere and the potential of the American adventure have lifted Tuscan graces to a new tone. The oldest skyscrapers of Wall Street add the superimposed orders of Bramante all the way up to the top with a clearness in molding and pro portion which delights me.[58]

The praise that Le Corbusier lavished on New York's skyscrapers may seem surprising after the diatribes he had made against them in his earlier books, most notably in *Urbanisme*. But even during the 1920s he singled out a few American skyscrapers as worthy of emulation, as for example, Albert Kahn's First National Bank Building in Detroit of 1922 (figure 50). Illustrated in his book, *L'Art Décoratif d'Aujourd'hui*, he used the building as a frontispiece for a chapter devoted to utilitarian design.[59] But he had to come to America to fully appreciate its qualities.

The qualities that Le Corbusier ascribed t New York's Beaux-Arts Renaissance skyscrapers in the passage quoted above–clarity, firmness and proportion–can also be found in Kahn's building. Hence, it can be used as a frame of reference for discussing the "Americanization" of Le Corbusier's approach to skyscraper design. Following the principles of the Beaux-Arts Renaissance style popularized by Daniel Burnham, Kahn divided his building into three major zones the public for the lobby, the semi-private for the offices, and the private for the top executives. These three functional zones are clearly revealed in the building's exte- rior design with the help of columns,



51
Ronéo Office Cabinet Systems, from Le Corbusier, *L'Art Décoratif d'Aujourd'hui*.



48
Le Corbusier, Secretariat, Chandigarh, 1951-58.

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[58] **Le Corbusier, *When the Cathedrals Were White* (New York: McGraw-Hill Book Co., 1964), p. 60 (originally published in 1947).**

[57] **See Le Corbusier, *Oeuvre complète 1946–1952*, p. 118.**

[59] **Le Corbusier, *L'Art Décoratif d'Aujourd'hui* (Paris: Éditions Vincent, Fréal, 1959), p. 83, (originally published in 1925).**

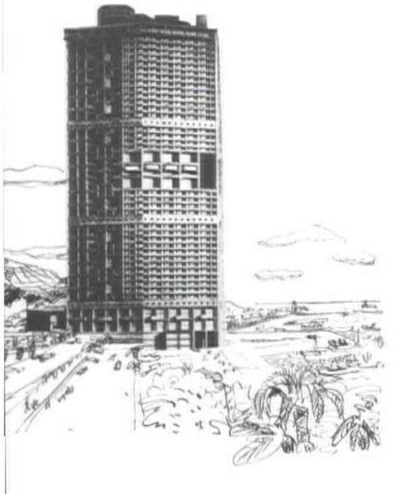
cornices and windows. Moreover, the building's firmness and proportion are expressed in its mass and articulation of parts, respectively.

In the Admiralty, Le Corbusier incorporated some of the key principles of the American Beaux-Arts Renaissance skyscraper style, most notably its emphasis on mass, proportion and hierarchical organization. As a comparison between the Admiralty and the First National Bank Building in Detroit shows, he interpreted these principles with the help of large frames and sunbreakers to be built of concrete. In fact, from this project forward, sunbreakers became the key conveyors of his design principles based on the American Beaux-Arts skyscraper. They gave his projects and buildings clarity by externalizing the spatial and hierarchical organization of the interior; they imbued his works with firmness by the sheer weight of their mass; and they helped achieve proportion by the articulation of their forms. And all of these principles were fully realized in Chandigarh.

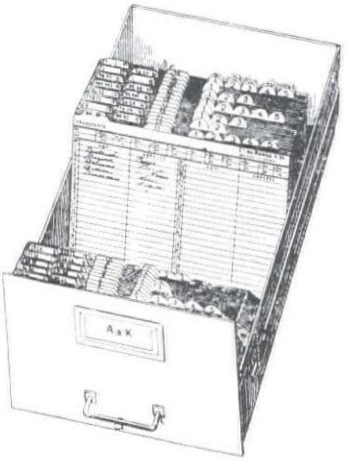
When it became clear to Le Corbusier that he could not build the Secretariat as a tall slab, he offered a horizontal version of it without, however, abandoning the principles he had developed in the Admiralty Building. The Secretariat, like its precursor, is divided into large rectangular blocks which are shielded by a massive grille of sunbreakers whose shape ranges from the simple to the complex. The simple, repetitive sunbreakers covering most of the building enfront the endless rows of bureaucratic offices, while the complex ones concentrated in the central block largely define the ministerial offices. The unprecedented complexity and monumentality of the ministerial block show that Le Corbusier wanted the sunbreakers to serve there as powerful witnesses to the functional and symbolic role fulfilled by the spaces that lie behind them.

If the Secretariat's firmness, proportion and functional clarity must be seen in part as a continuation of American Beaux-Arts skyscraper design principles, the form and composition of its sunbreakers should not. To find precedents for these one must turn to Le Corbusier's books where illustrations of file cabinets will provide the clues. The two that stand out appear in his *L'Art Décoratif d'Aujourd'hui*, the first of which represents a Ronéo file cabinet system (figure 51) and the second a file cabinet drawer (figure 52).[60] Discussing these and other examples of office furniture, Le Corbusier singled out their efficiency, suitability and flexibility, qualities that he also expected of buildings. No wonder that he incorporated these when he designed an office building such as the Secretariat whose overall composition shares a great deal with the built-in file cabinets (figures 48, 51), while the sunbreakers enfronting the bureaucratic offices reveal a striking similarity to the file cabinet drawer (figure 52). As a result, the building looks like a huge file

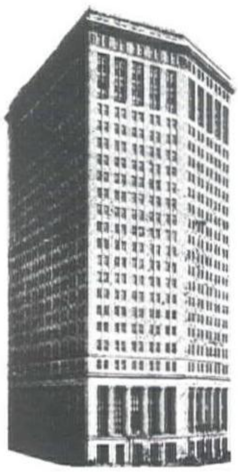
Corbusier, *L'Art Décoratif d'Aujourd'hui*, pp. 70, 74.



49
Le Corbusier, Project for the Admiralty, Algiers, 1938-42.



52
Ronéo File Cabinet Drawer, from Le Corbusier, *L'Art Décoratif d'Aujourd'hui*.



50
Albert Kahn, First National Bank Building, Detroit, 1922, from Le Corbusier, *L'Art Décoratif d'Aujourd'hui*.

cabinet system, with most of its "drawers" lined up in an orderly fashion, while allowing its "shelves" (porticoes) to be left open in a random fashion.

By juxtaposing the firmness, proportion and functional clarity of the American Beaux-Arts office building with the efficiency and flexibility of the office cabinet system, Le Corbusier developed a new approach to the design of office buildings. The experience that had a decisive role in making this possible was his first visit to New York in 1936, when he saw the city's skyscrapers at first hand. Notwithstanding his oft-quoted statement that the skyscrapers of New York are too small, he learned to value them once he saw them. His most consequential immediate response to New York was embodied in the project for the Admiralty in which he launched a new direction of skyscraper design. But the only country that benefited from this was India by giving him the opportunity to put his ideas into concrete form, and thus enabling him to realize his most eloquent architectural interpretation of modern bureaucracy. In his first Indian sketchbook Le Corbusier wrote:

> Calm, dignity, contempt for envy: perhaps India is capable of standing by them, and establishing herself at the head of civilization.[61]

These words clearly sum up what for Le Corbusier represented India's most lasting values: her moral force and potential for moral leadership. In the buildings of Chandigarh's capitol complex, Le Corbusier offered a powerful architectural interpretation of the moral force inherent in India's executive, legislative and judicial branches of government. He also expressed in them India's aspiration to become the foremost moral leader in the world as envisioned by Gandhi and Nehru. No wonder that in his outline of the city's program he noted that "responsibilities of aesthetics and ethics equally dominate the work."[62]

Le Corbusier believed that he was in an exceptional position to interpret India's needs and aspirations, for he was not bound by the issues of the day in which political leaders–including Gandhi and Nehru–are often enmeshed. In his third Indian sketchbook he wrote:

> Life has placed me in the position an observer, giving me incomparable–and exceptional–means of judgment. I believe that this order thought is not available to political leaders and that they live in the problem and hence do not see it.[63]

Viewing his role in this light, he spared n effort in giving the three great buildings of the capitol complex the most memorable form and the richest possible meaning. In so doing, he offered the newly independent India an architecture intended to outlast the contribution made even by the country's two greatest modern political leaders. Hence Le Corbusier architecture there can justly be called timeless but of its time.

This paper will also appear as the "Introduction" to Volume XXII of The Le Corbusier Archive *(New York: Garland Publishing, Inc.).* Perspecta *is grateful to Ralph Carlson of Garland Publishing for th permission to publish it.*

The research for this paper was made possible by an initial grant from the Graham Foundation for Advanced Studies in the Fine Arts. A senior research grant under the Fulbright-Hays Act enabled Prof. Serenyi to study Le Corbusier's works in India.

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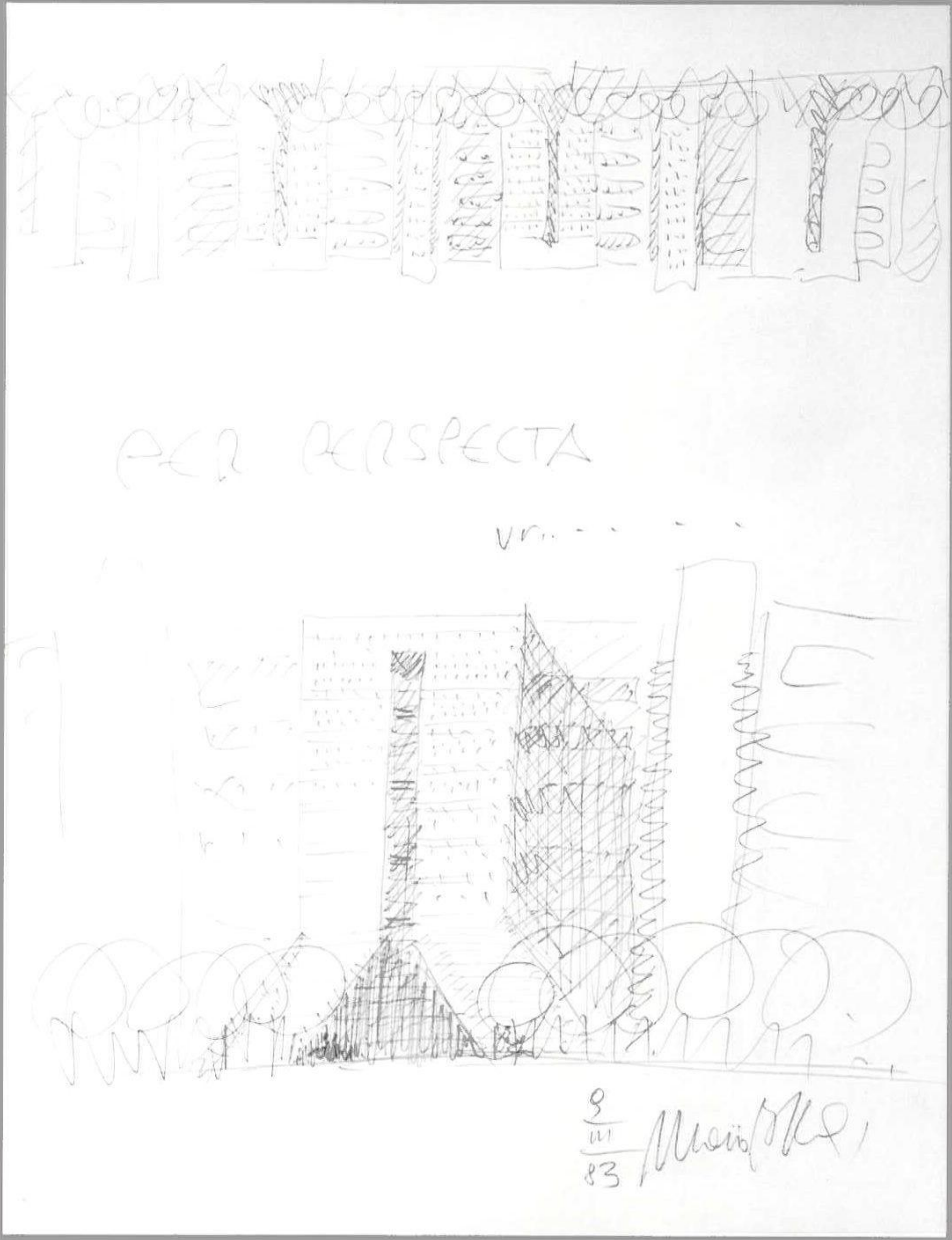
[63] *Le Corbusier Sketchbooks Volume 2, 1950–1954*, E 23, Nos. 662 and 663 (Translation by Agnes Serenyi).

[61] *Le Corbusier Sketchbooks Volume 2, 1950–1954*, E 18, No. 362.

[62] Le Corbusier, *Oeuvre complète 1946–1952* (Zurich: Éditions Girsberger, 1961), p. 115.

Architecture and Morality: an Interview with Mario Botta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9/III/83 Mario Botta

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I would like to take this opportunity to confess that I always return to Ticino because here I find that exciting climate I lived through in the 1930s and 1940s, during the great battle for a new architecture. I consider that in Ticino one can truly find a new center for architecture. Above all, I regard Mario Botta as the link between our ideas of decades ago and today's architecture. He is not an *imitator* of things past but a *continuator*. I am not in the habit of gratuitously paying compliments to anyone at all. In my youth, I did my best in order to generate polemics. Nowadays, I am not polemical anymore for I rarely find the reason to be so.

As a teacher, I always failed the student who would imitate my drawings; conversely, the student who would be able to capture the spirit of my work would always gain my highest note of appreciation. In Ticino, Mario Botta as well as some other of his local colleagues—but Botta in particular—is consistently capturing my attention. He is the continuator of an architecture that is certainly not dead, and that definitely did not fail. In my opinion, rational architecture has not reached its fullest expression yet. "Rational" is a word with no intrinsic value in itself, it carries no historic value. Rational is simply a word necessary for cataloguing a particular movement. All good architecture has always been rational. Nevertheless, we can still rely on the term "functional-rational" for the purpose of classifying the architecture of Mario Botta, as well as that of his Ticinese comrades. In this context Botta plays the role not only of an animator of architecture but of geometry as well. When I spoke about Mario Botta's most recent built project, the Casa Rotonda, I said that he is the "transfigurer of geometry," for I consider that geometry *is* architecture. I find that evolution as a concept does not apply to architecture; in our profession there is only metamorphosis. Architecture must always be of the avant-garde, as it was of the avant-garde architect who built the Parthenon.

Alberto Sartoris

Livio Dimitriu
Your work is now receiving a great deal of attention in the United States. To what do you attribute this?

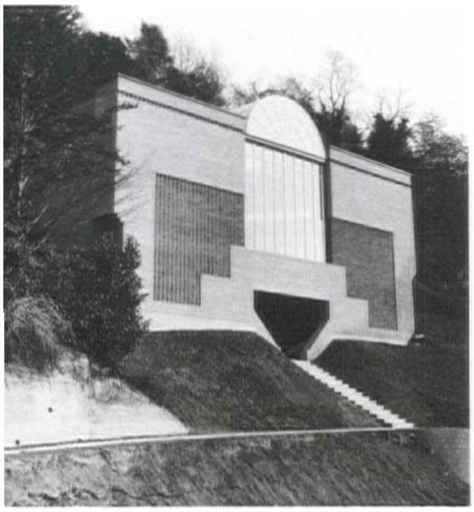
Mario Botta
The interest in my work is due to the fact that it is a very primary architecture and therefore very easily receivable. My buildings are quite often very simple, this being a characteristic which relates them to a regionalistic tradition. I believe that not only in America, but everywhere, there is a need for simplicity. Architecture is a primary fact, a language for man. We must recognize the basic needs accompanying the fact of habitation. An architecture such as mine gravitates toward the essential, and relegates to a lower priority the decorative and mundane elements. Perhaps this is why the images seen in magazines are strong and thus easier to receive.

esterday, on the construction site, we spoke of the appeal your houses are le to generate, despite the fact that you use exclusively in their making very w cost materials, such as concrete blocks. In my country, the use of such oor" materials is restricted to industrial structures, warehouses and the like, pecially when no exterior finish is applied, as is the case with your buildings. wonder what the impact of this architectonic expression would be on the pulation of the well-to-do in Long Island, for example?

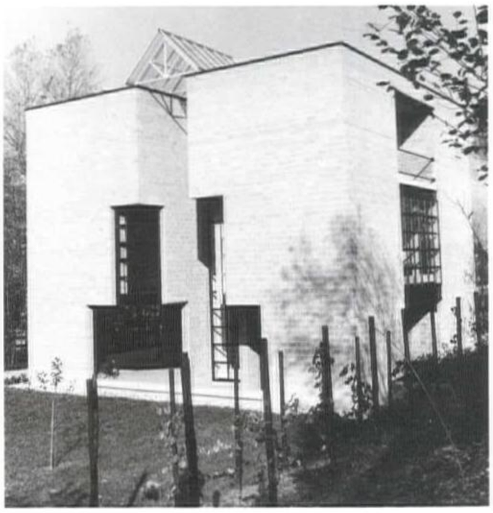
MB

To answer this you must ask the rich, for I can only ask my own clients, people of relatively restricted means. All of my houses were, until now, geared to a very modest market. I would not call it poor, because still today we live in a world which does not allow the poor man to build. The use of materials in my houses is simple, or perhaps better described as humble. In Ticino, the use of these materials is not a tradition. Here, houses are often made with luxurious materials as an expression of status. I, for one, employed bricks and blocks because I simply had to make houses on economical budgets. However, I do believe that any material, if handled properly, can assume the dignity equal to that of marble or gold. I did use a different class of materials in the project for the Fribourg Bank, marble for instance, but with extreme restraint and discretion. A material in itself is an instrument. It all depends on how one uses it. Even with common materials one can make good architecture. In fact, good architecture is always made with such materials. The use of rich materials is an exception to the rule. They ought to be used only on special occasions, in order to be meaningful as conveyors of symbolic or religious values.

In my opinion it is necessary that architecture reflect to some degree the history of its own time. There is a very beautiful definition which I enjoy recalling every now and then, namely that architecture is the formal expression of history. Today we live in an epoch where there are materials which by themselves are not noble. It is our duty, our work as architects, to make these materials speak, to make them become the highest expression possible for our time.



use in Viganello, 1980.



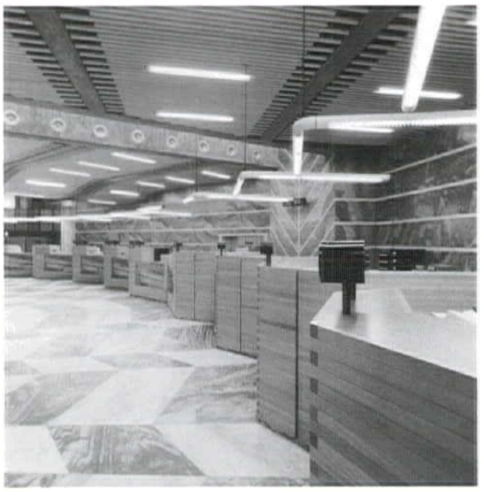
2
House in Pregassona, 1979.

LD

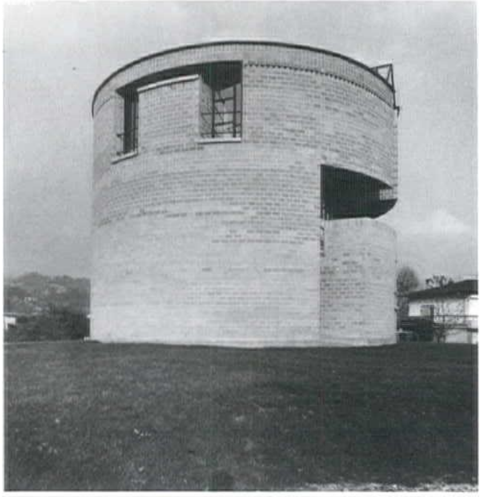
How was your work received in your own country until now? What are the problems you had in the past, and what are the problems you believe you will have to confront in the future?

MB

I must say that it was received on two different levels. At the international level it was received quite positively, which flatters me, as well as concerns, and surprises me. The few works which I execute and publish are always generating interest and discussion. However, at the local level difficulties still exist, either from a bureaucratic point of view or with public opinion. This is seemingly a result of a closed mentality which doesn't receive innovation easily. The exceptions are those who inhabit my buildings, who are very content with them, and a few friends. Viewing the exterior, my buildings sometimes appear to be *disturbing* objects. In reality, they respond in a very simple manner to exigencies of our time and of our landscape. The architecture I make is perhaps not very "cultured," but it is very closely related to nature. It would please me if my architecture is perceived to be rooted in and tied to the culture of my native land. The making of architecture signifies transforming reality. I am attempting to transform this reality, which is always unique. Every single house is a "unicum" which communicates with a particular landscape, which in turn has its own history, its own culture, and possesses its own stratification to be consolidated and transformed. Making architecture signifies above all the search for a new equilibrium between man and his surroundings. We inherited a certain tradition, but today we also have different needs and new aspirations. By means of architecture, we can and must, as is our duty, search for these new modalities of organizing the space of everyday life so that we can be in harmony with our life and time. I must admit that my architectural proposals are only partially agreed with immediately, because at first sight they appear to be shocking. Initially they appear to hurt the public sensibility. Only in time one realizes that they are not as "ugly" as one may have initially thought. Instead, as time elapses they perhaps come across as less disturbing than the enormous number of small interventions which are made merely in order to hide one's lack of quality. The result of this operation is a surrounding fabric without any quality of its own. It is inherent to architecture to be a counterpoint to nature, to be a dialogue with nature. Architecture must be by definition other than nature. Architecture is an artificial fact. The only manner of paying our respects to nature is precisely by opposing it, confronting it, by conversing with it while fully aware that architecture is but an artificial element created by man. Only from a dialogue with the natural element can quality arise. If there is to be an instrument capable of measuring the quality of architecture, it must quantify the intensity of change between an original natural condition and the new condition of culture, inside which architecture intervened and created a new space.



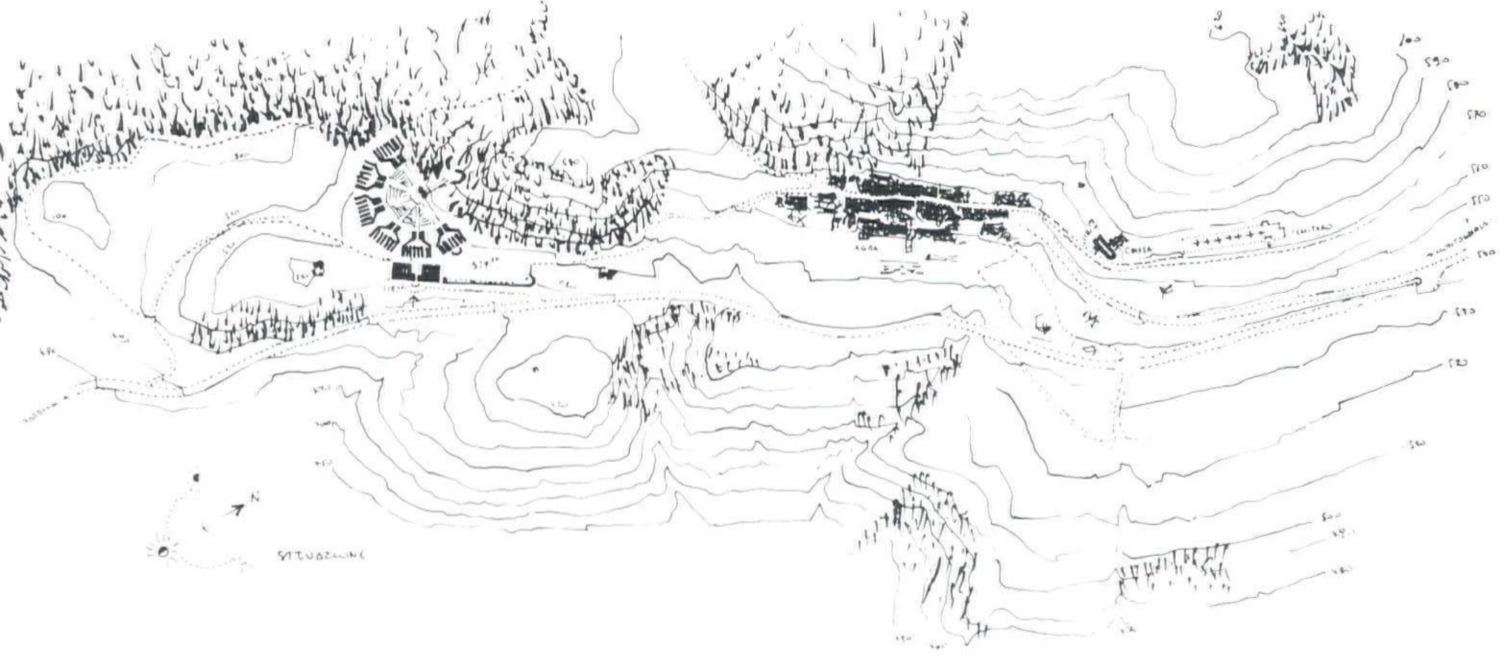
3
Fribourg Bank, 1977-82, interior of banking lobby.



4
La Casa Rotunda, 1981.

5
Agra Competition, 1980, site plan.

6
Agra Competition, 1980, perspective sketch.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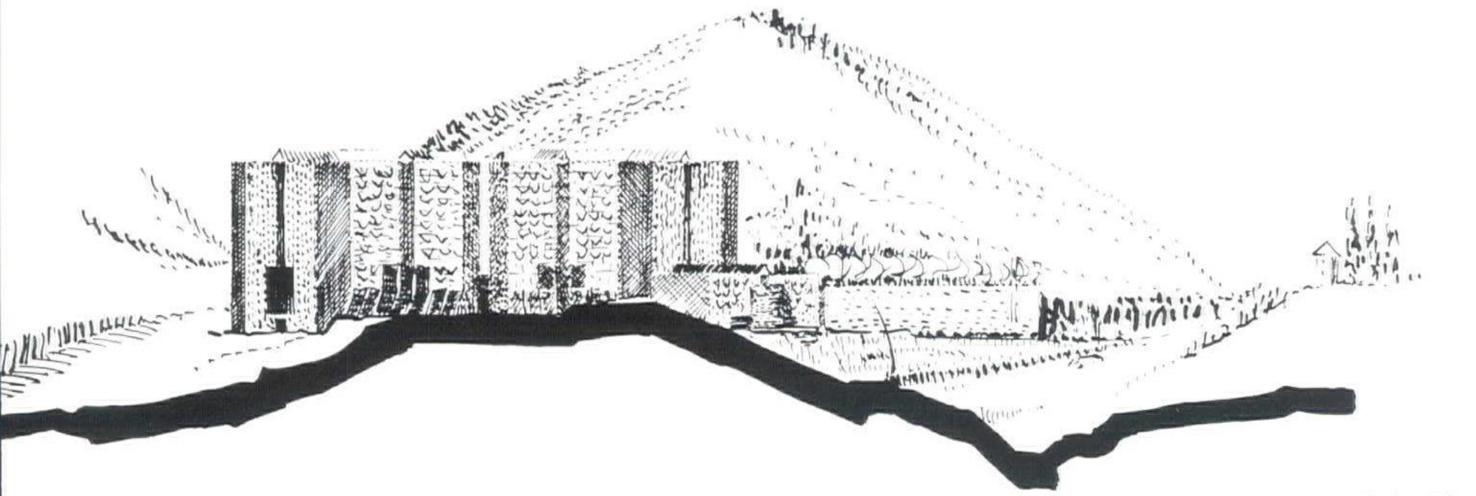


LD
When you spoke of your work as "disturbing," I supposed that you were referring to the local perception of it. I don't believe that in the U.S.A. your work is disturbing to the eye and mind of the viewer.

MB
Yes, perhaps.

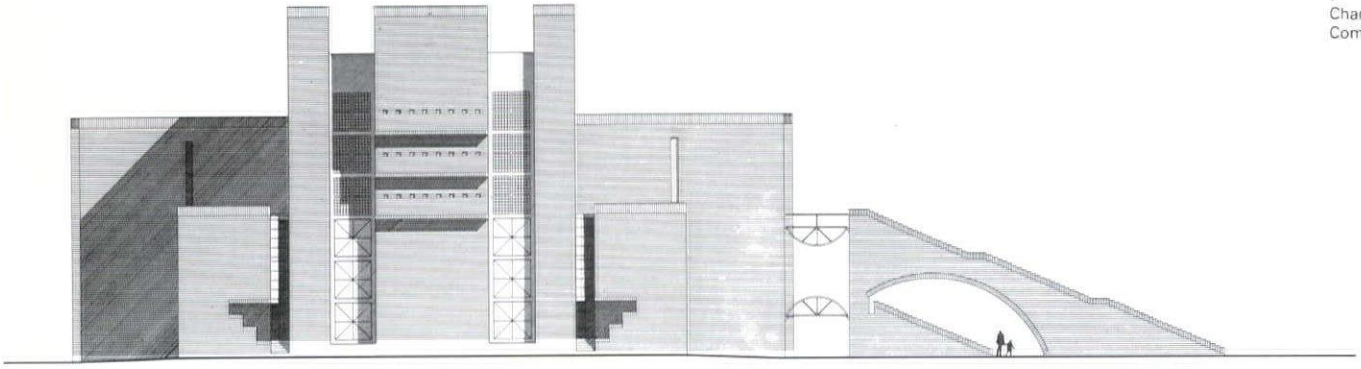
LD
You were referring to Switzerland, I would think.

MB
Yes, Switzerland. Your intuition serves you well. I was referring to the local perception. Because I propose new forms, people regard my houses with a certain degree of curiosity. It is only a matter of a short time before people become aware that my buildings are perhaps forms which better respond to today's needs.

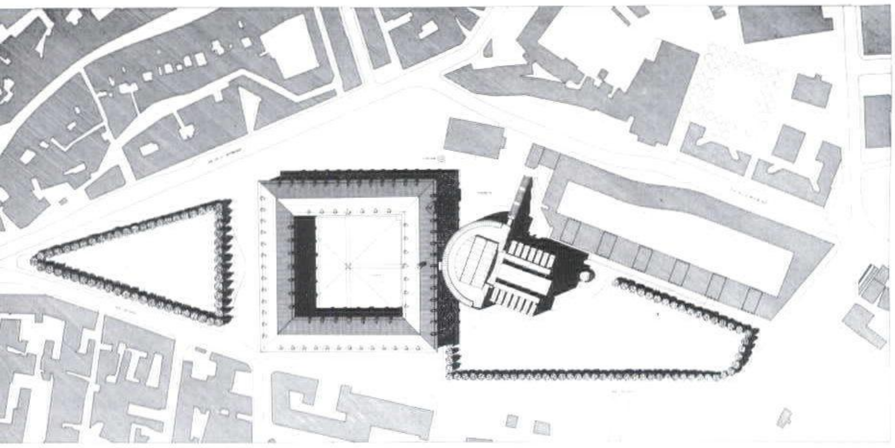
LD
It is striking to me to hear you say, even in passing, yet no doubt with intention, that your architecture is not cultured. What exactly do you mean when you make this statement?

MB
I said that *perhaps* it is not "cultured." In fact, it is an architecture which is measured by the yardstick of man's needs, and thus it becomes "cultured." It is cultured in that sense. It is not cultured in the sense that it is not a literary architecture.

I would like to make an architecture which responds to real needs. Today, I see real needs as a series of elements which place man in relation with the earth itself, with the trajectory of the sun in the sky, with the awareness of the passing seasons. Thus one may recapture, via the notion of dwelling, the initial values for which the dwelling was built. The dwelling as the repository of mankind, must offer a micro-climate of life to enhance social communication, as well as eating, sleeping, love-making, and working. The role of these needs has been somewhat distorted and modified by the International Style, and by consumer oriented architecture, through the proposal of lavish artificial paradises. For example, in the part of the world where I practice, it is perfectly useless to use air conditioning. Even though air conditioning was considered one of the great conquests of the 1960s, I believe that one can live in better harmony with one's surroundings without a mechanical device which renders everything sterile and aseptic and which imposes the lack of change as a condition of life all year round.

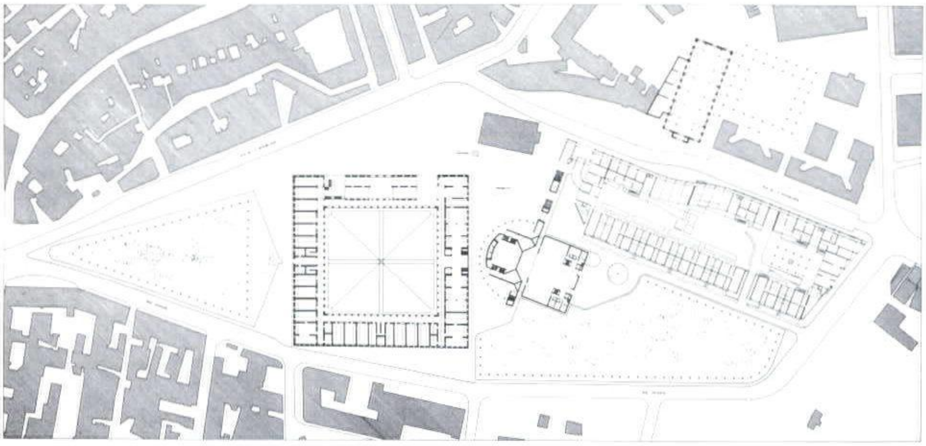


7
Chamberg Theater
Competition, 1981, elevatio

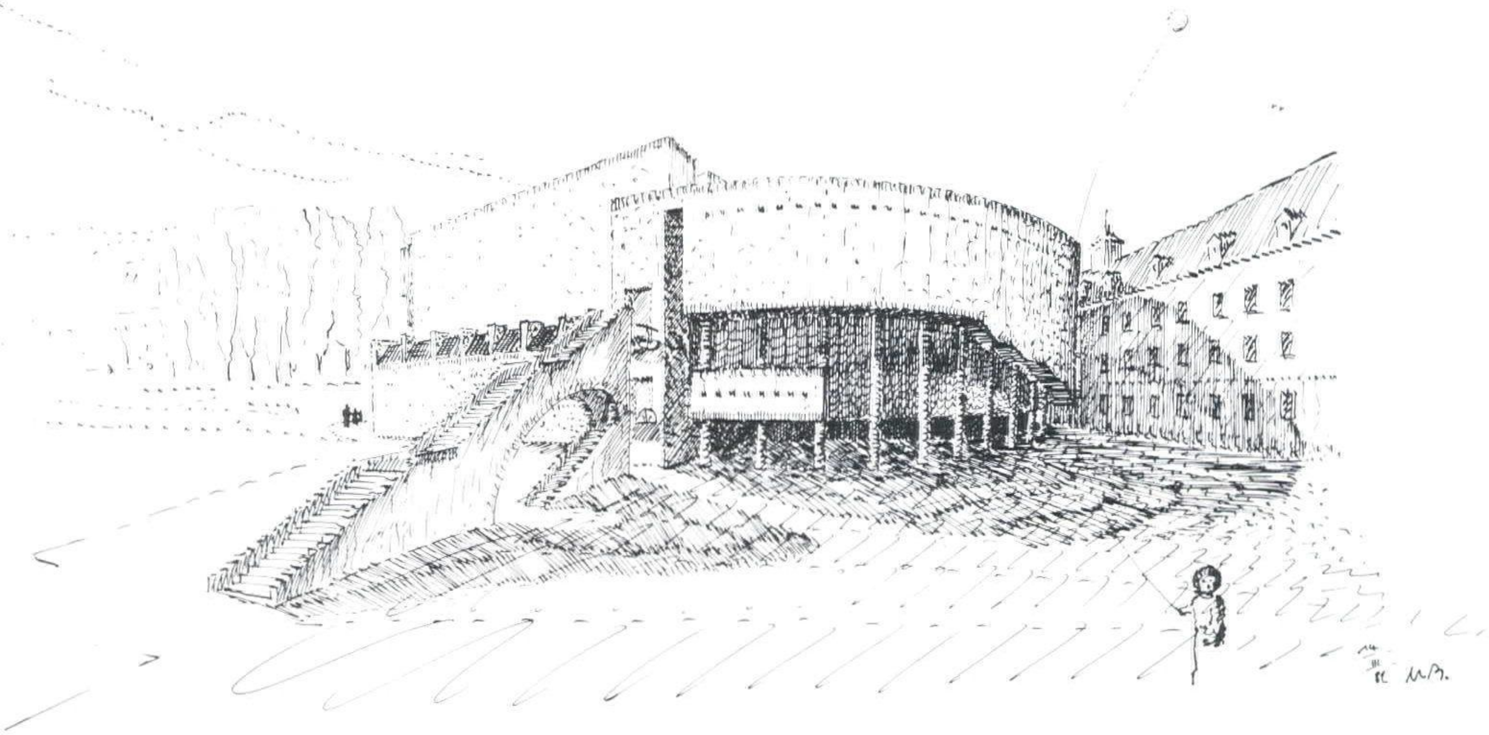


amberg Theater
mpetition, 1981, site plan of
lding mass.

9
Chamberg Theater
Competition, 1981, site plan at
ground level.



amberg Theater
npetition, 1981, perspective
tch.



LD

One of the "myths" surrounding your work is that it was strongly influenced by the great masters with whom you came in contact, directly or indirectly, during your formative years. I am referring specifically to Carlo Scarpa, Louis Kahn, and Le Corbusier. I am taking the liberty of using the word "myth," for all too often I find the architects and critics reacting rather superficially to your work, and using the names as rather comforting cliches to be applied as labels to a quite "disturbing" work via its novel interpretation of past and often forgotten lessons. By the way, which is the order you prefer among the names I mentioned, if you indeed accept them as valid, and why?

MB

These influences were perhaps fictionalized by some critics, but in reality they are substantially true, for I do have a great cultural debt. The three names you mentioned are great personalities to whom I owe a great deal.

LD

Forgive me for attempting to further clarify this point. In discussing "cultured" architecture, you were referring to its relationship to the landscape, and its being in harmony with nature. When you said, "It is perhaps not cultured in the literary sense," I could not help thinking that you implied by the use of this term either a direct reading of built-in narratives in your architecture–which for me is quite evidently present in your work–or an architecture of quotation, explicitly or implicitly, vis-à-vis the oeuvres of the masters you acknowledge. I must come back to this point, for I do see your production as "cultured" in the best sense of the word.

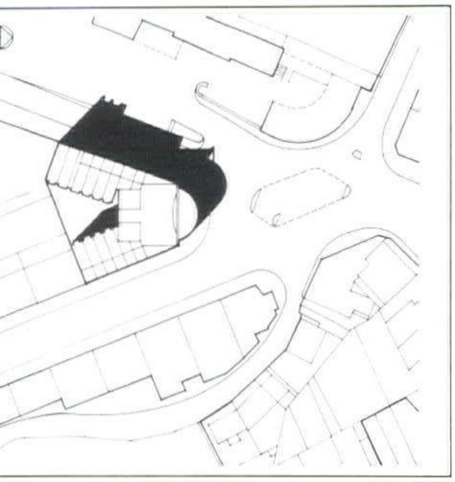
MB

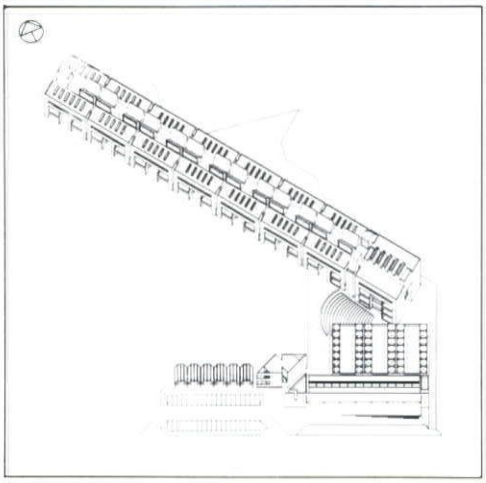
Yes, from that point of view, but architecture does not exist if not by means of work completed, belabored, received and executed by the preceding generations. There are two manners of appreciating the architectonic fact. One is the rational approach with which I identify. I cannot think but through experiences, through work, through the cumulative culture of preceding generations. One is not born an architect, one becomes it. The work of the Modern Movement in my particular case established a cultural substratum as well as a cultural ceiling on and under which I operate. This rational approach includes all the aspects which we are able to communicate with words, such as the problem of the crisis of the city, the loss of identity and value through consumerist architecture, and so on. A more sensitive aspect with which I identify when speaking of architecture is the secret, more autobiographical side. More difficult to express in words, it is able to survive because it is the poetic fact, the intuitive dimension inside the rational process. I hope to recover through the teachings of these three masters a fragment of the rational, as well as accommodate the irrational side of the process of making architecture.

To answer the second part of the question concerning the three architects, Carlo Scarpa, Louis Kahn and Le Corbusier, Kahn would place first. We had a series of meetings in Venice on the occasion of the Palace of Congress project. Even though we had relatively little personal contact—I would like to say that paradoxically Kahn is the one I knew least among the three—he gave me the most regarding an approach to architecture. I am very interested in Kahn's capacity to go to the origins of the problem, to organize the space surrounding man, and put it in a form which is almost archetypal, always leading by way of transformation to the primordial needs of man. "A school," he says, "is a tree under which men speak to one another." The capacity Kahn had to always go to the origins of problems helped me very much.

Next is the appreciation I have for Carlo Scarpa, for his sensibility for and extreme love of materials. He was a great poet of materials. Scarpa offers a great lesson in freedom through the manner in which he used and abused all materials as well as the manner in which he organized spaces. However, he never did possess a great creative plastic force in his work but he was endowed with an extreme sensibility related to the use of all materials. He knew how to make stone speak, yet he was also able to make drawing paper sing. I would be very happy indeed to think that I have assimilated even partially Scarpa's great love of materials.

Of course, we are all indebted to Le Corbusier. He willingly became practically the essence of the history of the Modern Movement in architecture. He was a man who for fifty years stood for an architecture ranging from neoclassic, to modern, to postmodern; a man who with his activity and generosity influenced all of us. It would indeed please me to be understood as a student of these three masters.

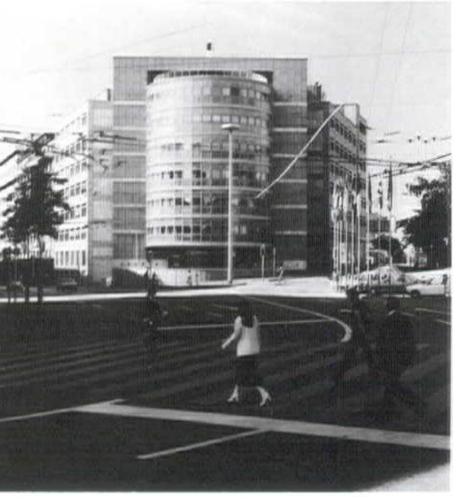




11
Fribourg Bank, 1977-82,
exterior wing.

12
School at Morbio Inferiore,
1972-77, site plan.

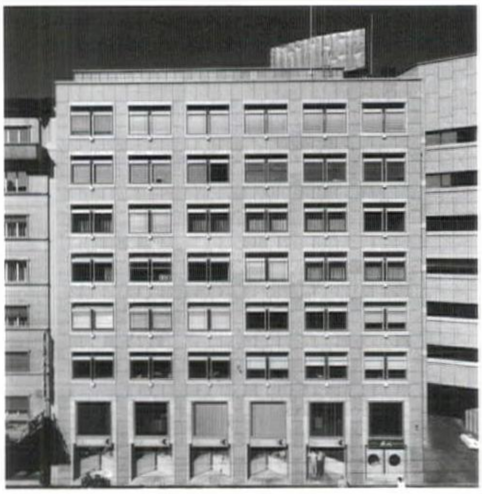
e *Electa* catalog concludes with the project for the Fribourg Bank, the first ge scale project you made. It is with this project that the American public's rception of your work concludes as well. Your afficionados in America await th a mixture of interest and anxiety news about this particular project. The planation of this questioning mood is the fact that the bank is, in the context your work, on a radically different scale of intervention, and also because it is trongly contextual urban work. What are your enthusiasms, reservations, and rsonal revelations about this project?



ourg Bank, 1977-82,
rior corner.

MB

The Fribourg Bank is a project which occupied a great deal of my time since 1977, and is about to be completed. Undoubtedly, there will always be those who are disappointed, just as there will be those who are satisfied. I must say that the bank is a project through which I learned many lessons. As you know, the bank is the first large scale project I have executed in a densely urban context. The earlier project for the school in Morbio had 70,000 cubic meters of built volume, which is roughly that of the bank, but it was, of course, on a rather rural site. In the case of the Fribourg Bank, I dealt with problems inherent in the city context, a highly historic one at that, as is often the case with urban situations. It is an interesting project, because it is one of the first done after the economic euphoria of the 1960s when the destruction of the cities was the order of the day. There are two positions possible: one builds *for* the city, or one builds *against* the city. The Fribourg Bank is a project built *for* the city. It comments on the history, the typology, and the morphology of the city. It is not an obnoxious project. It refuses to make the grand gestures characteristic of the interventions in a more open context. Rather it assumes the laws of historic stratification, in particular the laws of the nineteenth century city block. The Fribourg Bank attempts to employ this sensibility through the instruments pertinent to these laws. During the 1960s, the corners of city blocks were usually destroyed in order to put up a tower. The tower was often representative of an open structure, one that could be used anywhere for any reason. Instead, I proposed a project articulated in three parts each very different from the other. The two lateral wings repeat the morphology

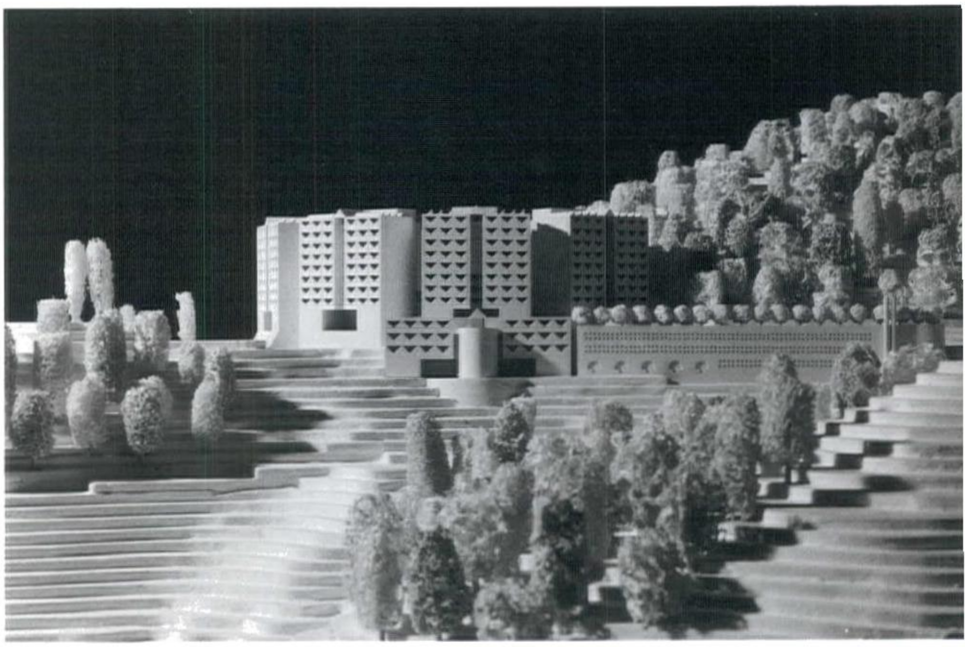


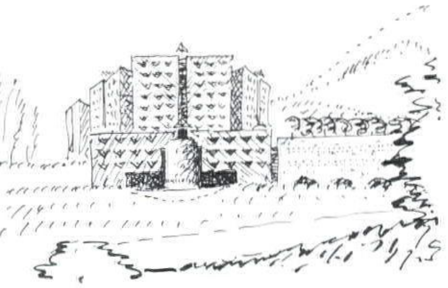
14
Fribourg Bank, 1977-82, exterior wing.

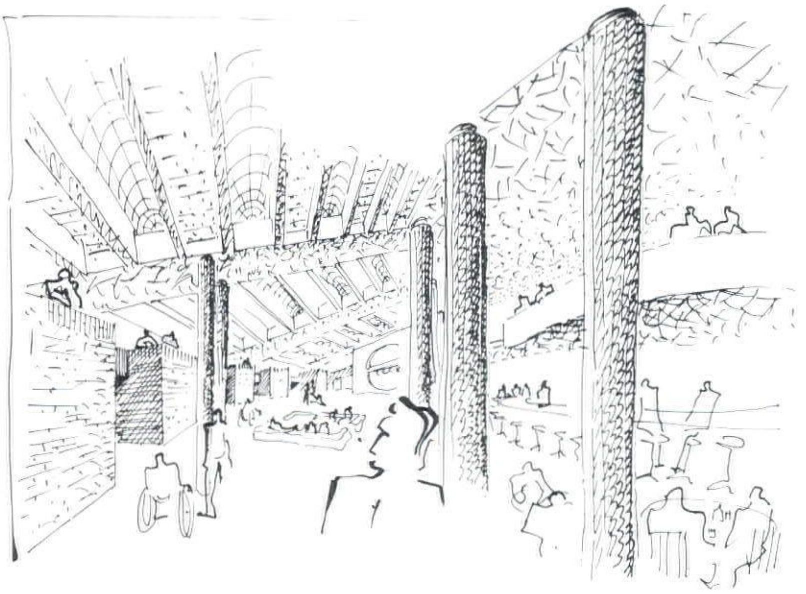
of the contiguous buildings existing along the boulevard and thus, by playing façade against façade, it consolidates the boulevard. The bank is intended to reinforce the structure of the city and not go against it. It is symbolically engaged in bringing the beginning of the boulevard into a dialogue with the head volume. This volume is in turn responding to a different space, namely the piazza in front of the railroad station. The building itself, by way of its articulation, assumes the laws of the city, interprets them, and restates them spatially in order to obtain a new organization. From this point of view the intellectual gamble involved in the project for the Fribourg Bank was very interesting to me precisely because at that time I began to feel like an orphan. The last examples of interventions made to consolidate the urban structure were the Michaelplatz of Adolf Loos and the Postparkasse of Otto Wagner, in Vienna. Afterwards modern architects always worked towards the destruction of the urban fabric. In this context the Fribourg Bank is a project attempting to recapture history and urban form, but not by great gestures nor by a contemporary language. In this sense it is an operation which can appear very modest from a linguistic point of view, yet still be capable of providing a topic for reflection on the subject of building in the city. For example, take the topic of constructing a window in the context of a nineteenth century urban texture. The window there is a hole in the wall. What does it mean to make a window today? We have lost the awareness of the meaning of window because, as it can be seen in the head element and the adjacent sides, the window does not exist as such. It becomes instead a panel, or a strip. When one confronts the theme of the façade against the façade of cut stone, the window becomes a theme itself. Consequently, one attempts to rethink the theme of the window with the instruments available today. The window can also be the light hitting on a mullion–a mediator between an internal and an external space. By way of this exercise, one can rediscover the whole history of architecture.

The problem of the window in the Agra project is very different from that of the Fribourg Bank and its explanation is very simple. The rooms are deep, and the spaces are oriented towards a valley as the building is sited on top of a mountain with an extraordinary view. Through the use of a triangle, the window took a configuration which maximized the opening above. The project is for a recuperative spa with many handicapped people in attendance who are afforded the possibility of perceiving the landscape below. Simultaneously they are given the impression of secure containment by the narrowing of the opening near the floor. It is this solution which determined the concept of space and then in turn determined the configuration of the window. It was not the window that determined the space.

15
Agra Competition, 1980, site model.







Competition, 1980,
or perspective sketch.

Competition, 1980,
or perspective sketch.

ow that you are building increasingly more projects in urban contexts, and I am ecifically thinking of the corner office building on Lugano's main piazza, as ell as the recently won competition and commission for the cultural center and eater in Chambéry, France, could you please elaborate on the topic of building the landscape as opposed to cityscape and illustrate with a few examples.

MB
The will of the architect is to intervene inside the city. I trust that it is a legitimate desire, similar to that of the painter who aspires to exhibit in a museum, as the collective locus par excellence. An architect such as myself, who has always worked in the open landscape of the countryside, becomes more stimulated, and is exposed to more suggestions, by the contradictions and the tensions of working in the urban context. The architect finds himself working more willingly and ambitiously with his models. I believe, though, that there is no fundamental difference between urban context and rural context in so far as the process, the problem solving procedure, goes. I always deal with a reading of the context, identifying some negative or positive priority setting elements which will enrich the making of the new project.

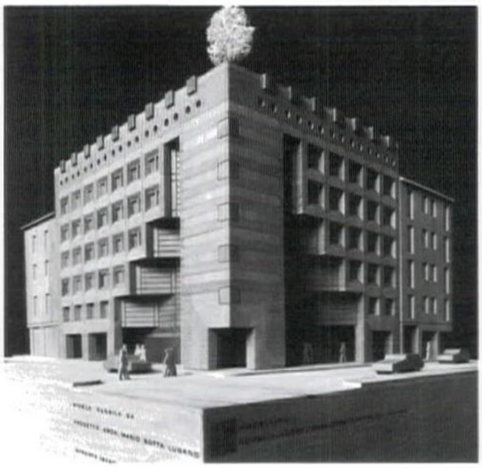
The design determinants for the Morbio school were the presence of the forest and the church as well as the desire to engage the presence of the new school with that of the church. This established a context which I willingly locked myself into. In the context of Fribourg, the reading of the history of the city itself determined the elements of play and my response to these elements. Thus the procedure is analogous. Evidently that which changes is the content. If one must confront the problem of the corner in a city block this is certainly different from operating in open country. In the case of the Lugano corner building, I dealt with the privileged situation of a site overlooking one of the main town squares and the two adjacent corners were subservient, merely framing our site. In Lugano, the very idea of consolidating the city block, and yet producing a commentary to an open space, determined a composition which made the apex corner the dominating element of the geometric and spatial composition. This is a solution I would not adopt or accept, were we to deal with a city block somewhere else. It would be too strong a gesture and too rhetorical. The solution followed naturally from the opposition of the piazza and the corner of the block. To answer your question, the elements of reference change, but the type of reference, which in my opinion is always that of discovery through a perpetually critical reading of the context, remains. One selects that which is positive, as well as that which is negative, with respect to the organization of space. Then one produces a speculation. The architect always makes speculations of a critical nature and also of an ideological nature. He therefore always needs pretexts for enabling him to intervene inside this reality.

LD

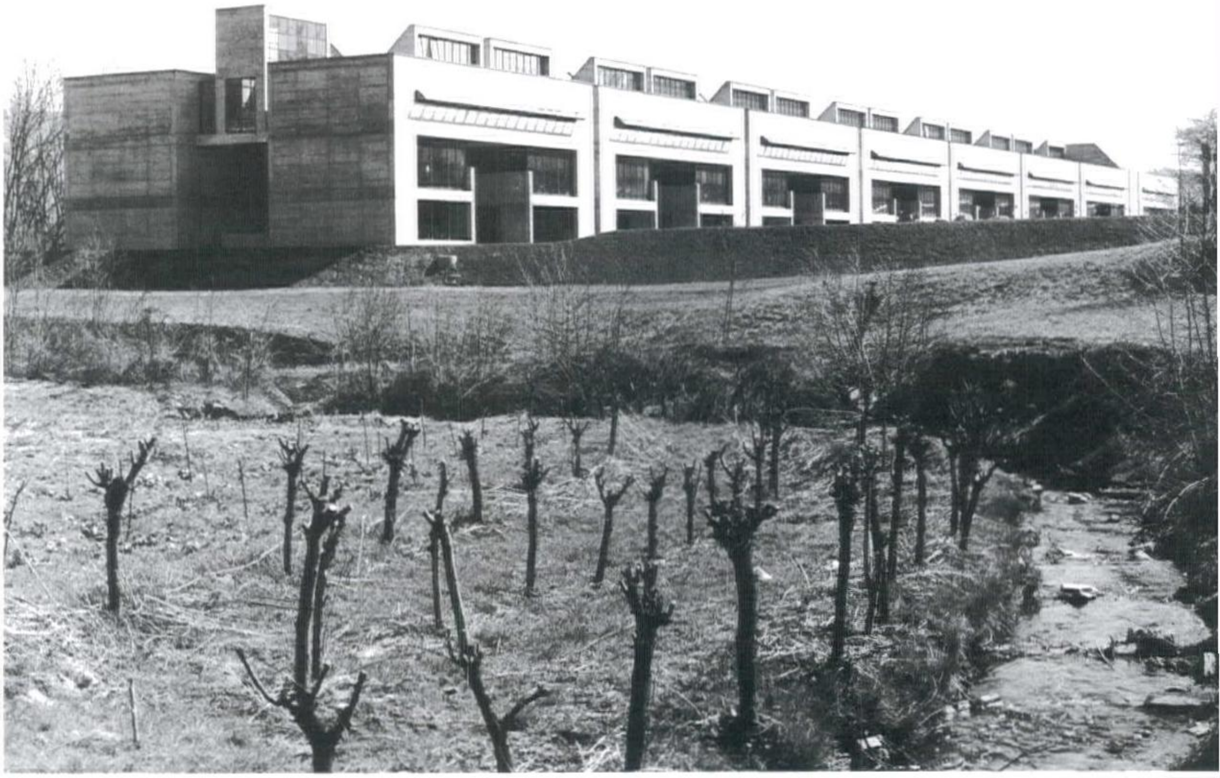
One of the revelations I personally experienced during our visit together to various projects built or under construction was the appropriateness of scale between the architecture and the landscape. I find, in so far as I can judge, there is a great difficulty in expressing this intimate dialogue via architectural photography. The monumentality of your rather small houses resides in their relationship to the landscape and not in the architectonic object itself. The other side of the coin is the Fribourg Bank which one can say elaborates on the notion of monumentality both in its scale and its commentary on the urban context, down to its minutest detail of execution. This brings the question around to the significance of the word "monumental" in relation to your chair prototypes for *Alias.*

MB

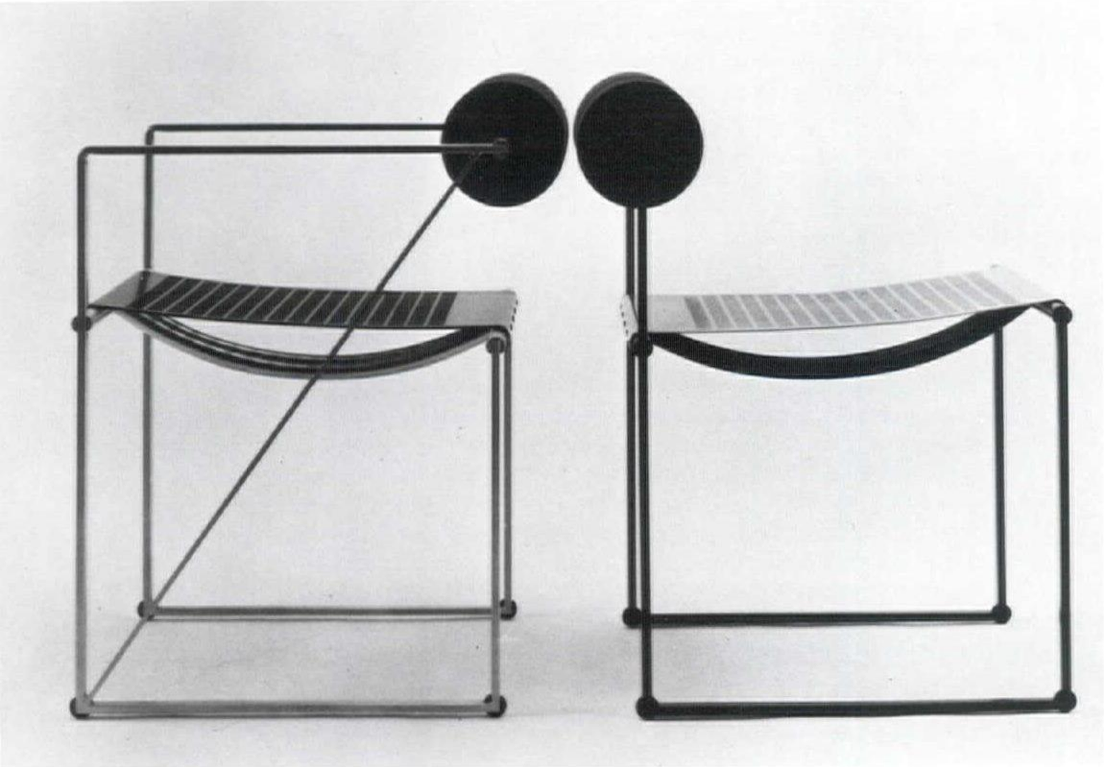
I believe that architecture is monumental by its very nature. From the moment that architecture is defined as the transformation of a natural condition, it becomes the manufacturer of an artificial condition. This is the principle underlying the architectonic gesture, the work and the transformation of the place. Also this happens to be the very principle governing the life of the monument. The monument is the celebration and architectural expression of something previously unsaid, unmentioned, perhaps scandalous, thus connoting a taboo. The monument, as an expression of taboo and a reminder of things past, becomes a rather negative statement. Architecture is self-referential in the sense that it celebrates and affirms the needs it contains, and thus it becomes monumental in a positive sense. One can then say that architecture is monumental by vocation. I believe the monument to be a negative element, but also believe that to make a small house recall and possess the dignity of a monument is a positive endeavor. If one could make a chair monumental, a fact which you so generously implied in your question, I would be very happy. In this acceptance the monument is the affirmation of the value of human labor. Thus, the monument.



18
Design for a corner building in Lugano, 1982, model.



19
School at Morbio Inferiore, 1972-77, exterior.



20
Chair design for ICF, Inc., 1982.

D

our new bilingual volume in English and Italian on *La Casa Rotonda* (*The ound House*), is already available in America but ironically, at the time of this nterview, not in Europe–at least for the moment. In the U.S.A. this volume will oubtlessly be perceived as a natural extension of the *Electa* volume if only ecause chronologically the *Electa* precedes it. What is your premise for this ew operation?

MB

This book came about in a quite peculiar way. It was generated from the very simple idea of producing a catalog for our show in Brussels. Beginning with this idea for an exhibition catalog, I refused to rely on the notion of an all-inclusive publication of my work. I proposed to the curator of the exhibit, Robert Trevisiol, something along the lines of, "I will give you one of my latest projects–you choose one–but we are going to present it in an exhaustive manner."

At this point, and you have to forgive me, I believe one must make a strong criticism of the publications on architecture. Usually, one publishes images frequently forgetting that they represent merely an instrument for arriving at architecture. Very often today, and I refer to the architecture of the *Strada Novissima* of the last *Venice Biennale*, one makes architecture only in support of the architect's drawings. One represents through architecture one's own drawings. I believe the opposite: the drawings are instruments in support of architecture.

D

rgive me, but if I am not mistaken, you refused to participate in the Biennale?

MB

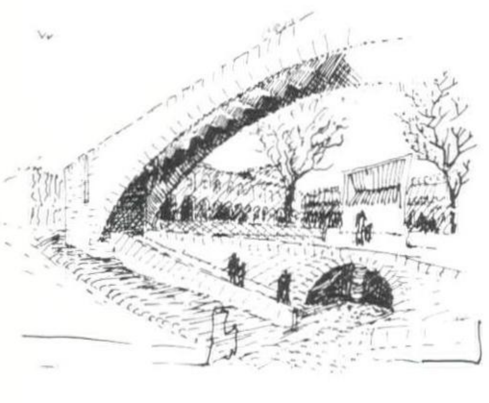
Yes, I had no time to organize the team, and therefore I was forced to decline the offer to participate. At that time, of course, the refusal was not a critical choice, for I had no idea what was going to happen later. To return to the notion of the book . . . the idea was born to make a book focusing on one object only, but in great depth . . . somewhat as if one were to chronicle the history of a project. It was my intention to present how a house is born, by going through a series of observations, questions, sketches, and their subsequent erasures.

LD
In other words, a diary of work.

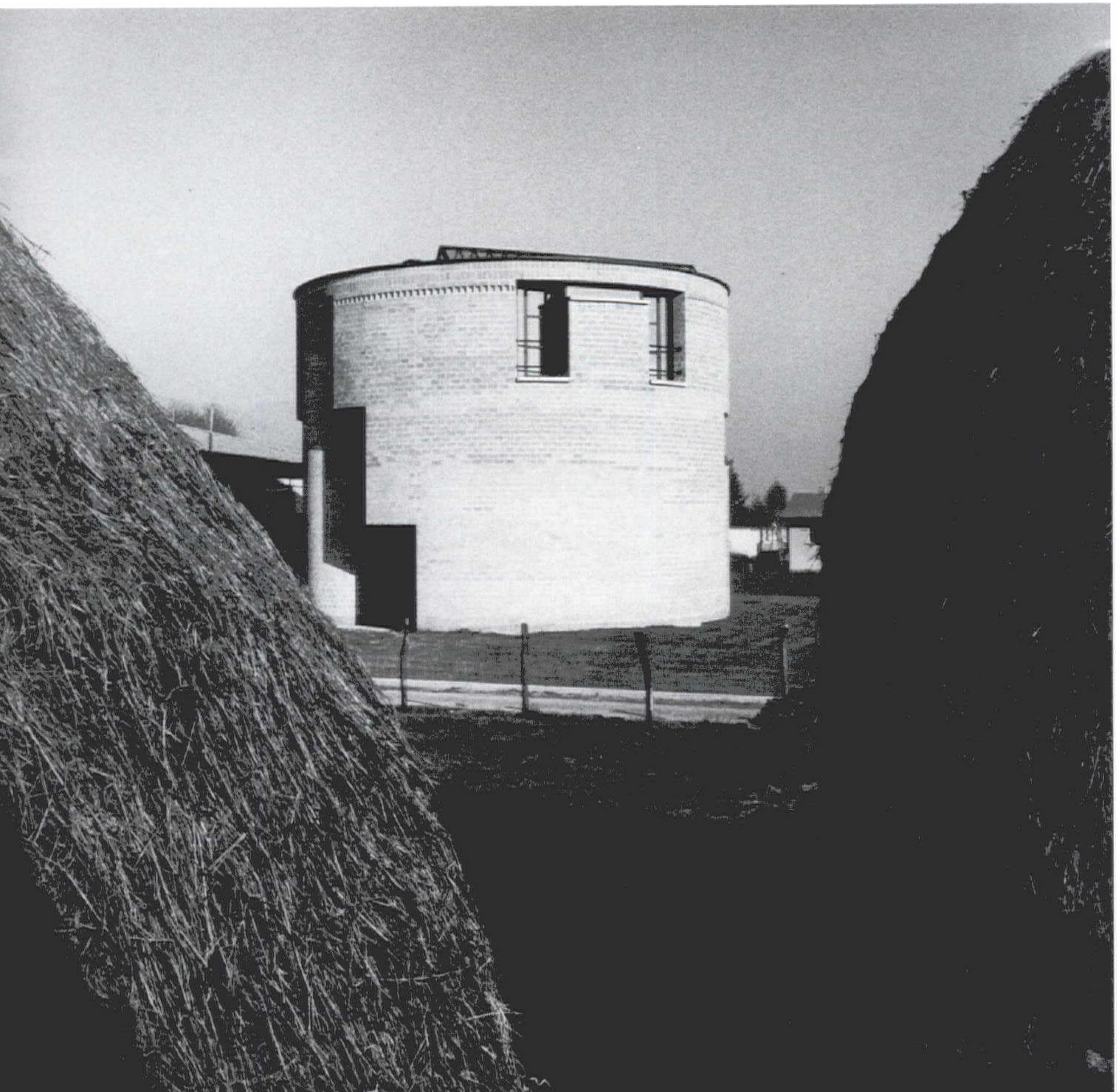
MB
Precisely, a diary of work. It happened that the choice fell on the *Casa Rotunda* (The Round House). It is a point of curiosity, because normally a house is square. It became interesting to see why a house is round. In this particular case the shape establishes a clear formal relationship with the landscape through openings and closures with respect to the environment. This is necessary, for the immediate surroundings are visually rather poor and ill defined. Thus, the history of the book has not been preprogramed. The volume came about as a natural extension of an exhibit catalog. Only later, in speaking to the editor, did it become a book. As well as my drawings and photographs of the built project, we included a series of critical discussions putting the project in perspective. The authors are Alberto Sartoris, Rob Krier, Pierluigi Nicolin, Robert Trevisiol, the poet Eduardo Sanguinetti, and myself.

LD
You are an Italian in Switzerland by way of your elective affinities with the Comacin architecture. The critical essays accompanying the *La Casa Rotunda*, place you, among other personalities, in the company of one of the great Italian masters, Alberto Sartoris. Can you please elaborate?

MB
My being Ticinese immediately suggests the Lombard culture, in particular, and Italian culture in general. For example, I am much more interested in what is happening in Milan than events in Zurich. I am also an outcome of our strong local tradition of an architecture confronting a specific climate and a particular landscape. In this landscape, south of the Alps, one finds a rather Mediterranean light and an ambient condition completely different from that north of the mountains. From the point of view of tradition, I feel in the company of, and I have a series of references to, the architects from the region around Como. Terragni's architecture is five minutes by car from my house; Alberto Sartoris, whom you mentioned, is an architect and architectural historian with whom I entertain a warm friendship, not only because he lives in Switzerland, but he is also Italian by nationality. My cultural formation is indebted to Italian culture. The great Italian cultural effort made during the last few decades and particularly during the last few years has fascinated and absorbed me. Conversely, there is the advantage of being connected to a certain Swiss pragmatism under whose governance things must be done–and done well at that–because in Ticino we have not only the cultural tradition, but also the building tradition which is an important given.



21
Guernica Competition, 1981, perspective sketch.



22
La Casa Rotunda, 1981.

LD

You live in a region of Switzerland, Ticino, fortunate to have a relatively great abundance of young talents, or so at least goes another of the myths about Ticino. You are obviously part of this unusual generation; you contributed to it, and continue to do so. How do you yourself perceive your colleagues, and those younger than yourself?

MB

The story of the talents is, as I mentioned to you on other occasions, a story. They say that there are these talents, and I certainly wish that it were true. The relationship with my colleagues is very simple: friendship and collaboration. I believe that I have a reciprocal relationship of give and take, based on mutual esteem and respect, which is at its best when the architectural expression of our work is most different.

LD

Such as with Livio Vacchini?

MB

Yes, with Livio Vacchini I have this reciprocal relationship precisely because the architectonic language is very different. In addition, both of us concentrate our efforts on certain relationships and elements we identify as important. There is the stimulus to do well, which if shared by many can be very exciting. It is not a form of competition and stimulates camaraderie at its best. To have as many of us as possible producing good architecture is also a part of the great building tradition of our region and is perhaps reflected by our work. From this part of the world came masters such as Carlo Maderna, Lucio Fontana, Borromini. The Ticino landscape is perhaps another factor in our development. Rafael Moneo said recently when he visited my projects, "Now I understand why you all are good architects here-because you have the lakes, the mountains-it is because you already have a portion of space defined for you. A portion of the environment is already built." How can one react plastically to a flat surface? Architecture becomes an easier task if one is confronted with an articulated three-dimensional landscape. For us, in Ticino, "three dimensional" is a part of the air one breathes from birth. These geographical conditions do not by themselves insure one's being a good architect, but they certainly can be stimulating. If one understands what it means to have light at sundown bounding off the side of the mountain directly in your living room-as you commented this evening on your way home-this light can become a form of natural architecture.

To go back to your question regarding the relationship I have with my younger colleagues: I must say it is a relationship of attention, but also of concern. Very often they are impatient, they want to do everything quickly, right away, without being in possession of a consistent critical attitude sedimented through time. Consequently, they often get burned as well as burn themselves out. So many of the ideas which for us were the fruits of years of belaboring a problem are adopted by the younger architects with a minimum of understanding, and love. In any case, there are many among the young who desire to contribute in the true spirit of our tradition. I am very happy that they are coming up because, in my opinion, there are never enough. So I tell them, welcome, so that we can be many.

LD

Am I mistaken, or do you seem to refer to a notion of architecture and morality: the need for an absolute morality in architecture?

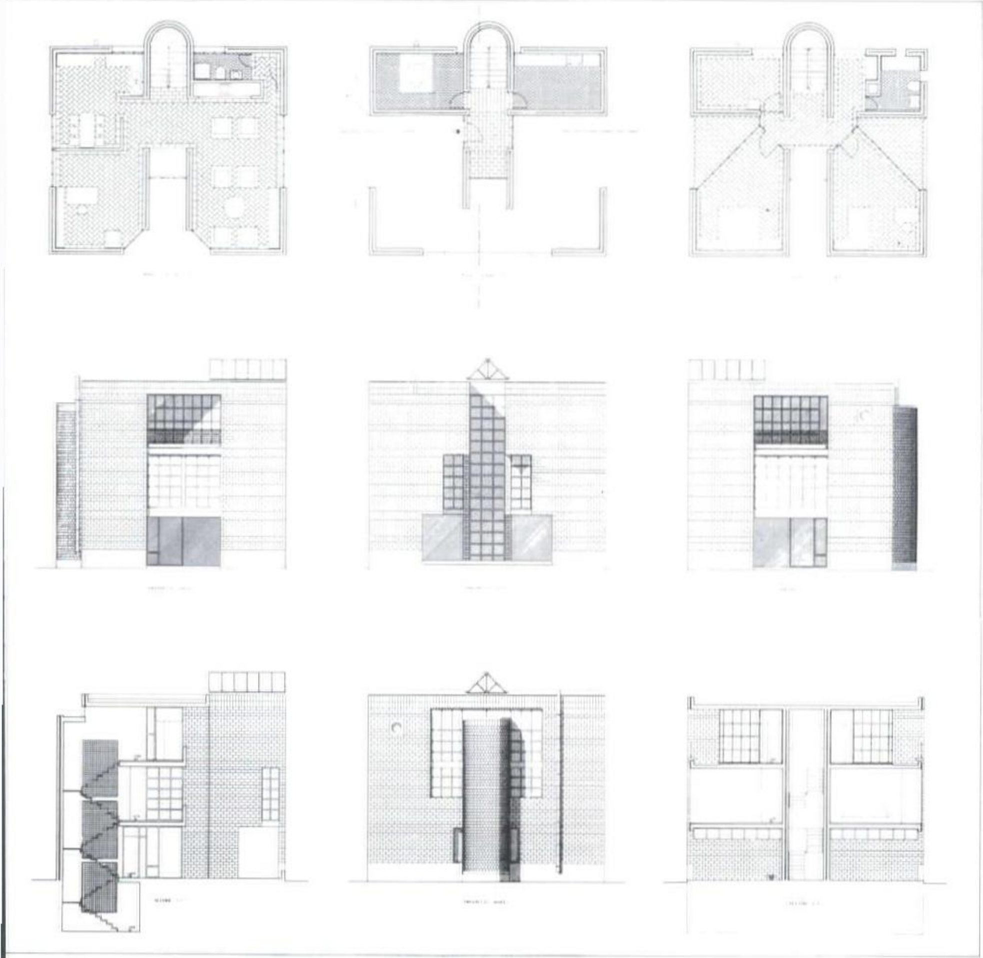
MB

Yes, yes, yes. I believe that one of the principal conditions for making architecture is the existence of extreme professional ethics, if not morality. This is true for all artistic expressions, isn't it? I believe that from truthfulness grows the expression of joy and of life for man. I believe that any artistic expression is an act of giving, a maximum aspiration which one must have in order to resolve, perhaps with a "lucid" sense of pleasure, the problems one confronts. Everything must include this act of generosity and this morality.

evitably, for us Americans, it is impossible not to ask your comments on stmodernism. I do this despite the fact that so many among us, for various asons, would rather believe this phenomenon does not exist. Every once in a hile, I hear voices of postmodern persuasion, and at times innocent souls ying, "My God, is postmodernism touching Mario Botta as well?" What do u think?

MB

I will start by addressing the last part of the question. I hope not to have been touched by this contagious disease called postmodernism. Why? Because I believe that it is a cultural fashion lacking true values. Postmodern architecture proposes a superficial concern with history. Postmodern architecture is predicated on a confusion between style and history. History is not a column, not a capital, and not the reuse of a form borrowed from the past. History, in its profound meaning, is an entity to which we are all indebted, but from which we must all attempt to free ourselves in order to be able to respond to the needs of our times.



23
House in Pregassona, 1979, plans, elevations, sections.

LD
Very Palladian, if I may say so. One must look at history, yet do the opposite.

MB
It pleases me to hear that I am in good company; it is truly so. I react very critically with respect to postmodernism. To be *after* the Modern Movement is a historic condition, and in this sense it is quite natural. Nevertheless, this codification in forms, and moreover in surface forms of façade only, is a problem of structural and spatial organization in function of context. This does not interest me. In my opinion, after all the disasters in recent architecture, we have gained three important awarenesses in the last few years: first, an appreciation for the value of the urban texture; second, an awareness that architecture belongs to culture and to the earth and to the landscape within which it operates; and third, the awareness that without the act of building, architecture does not exist. Therefore, architecture is above all, the science of construction. "Architecture is, above all," in the words of Alberto Sartoris, "knowing that a column's place is under the roof and not above the roof as the postmoderns are doing . . ."

LD
Sartoris?

MB
Yes, because they asked Sartoris what he thinks of postmodernism, and he said, "Well, I don't know, I see them putting columns over the roof, but I always thought that it was better to put them under . . . "

Let us return to the previous arguments: first, the awareness of the city and the need to consolidate the city; second, architecture is the awareness of the place. I must quote a sentence which I have come to like, and which I use every once in a while, "Architecture is an instrument for not building *in a place*, but for building *that place*." Architecture becomes thus part of a historic and geographic condition of place, and through its presence completely transforms that place. The third of the previous arguments is that we confront a building condition which should include the building knowledge–lost in the advent of the International Style and with the arrival of industrial architecture. I am not able to find these three conditions in postmodern architecture. Therefore, this architecture does not interest me. The postmodern operation of cutting things out of the past and pasting them up in the presupposed form, is founded on a presupposed new exigency: "End of the prohibition," as Portoghesi has said. I believe, instead, that today we must be even more rigorous than at any time in the past. We cannot afford to assume "the end of prohibition" attitude, and we need to learn how to build before we can afford to permit everything. So, in this sense, I have a very critical attitude.

Of the *Strada Novissima* in Venice, I must say, paradoxically, the participating architects involved themselves once more in the act of drawing as art only to prove that ultimately drawing is not an instrument for arriving at architecture. I used to place a great deal of faith in drawing, for I thought that through drawing one could recuperate some of the instruments needed for making architecture. When the architects of the *Strada Novissima* had to make architecture, it was done as if architecture was simply an instrument for arriving at one's drawings. The proposed façades were copying and reproposing, what?–the very drawings of these architects. This becomes a vicious cycle. Precisely on this account one must take a critical standpoint. The true needs of man are of a spatial and not of an epidermic nature. The sociological escape that architects engaged in during the 1960s, for example, did not constitute a true alternative. One understood that with sociology it was not possible to build projects. Today, one must understand that by way of stage design we simply do not have sufficient elements to make architecture.

rious code restrictions, very specific requirements regulating the height, the nstruction, the relationship to open space, constitute every so often formal rameters for your work. Many times I see critics pronouncing formal eculations on your production, without understanding that your choices e often directly the result of dealing with construction and code limitations. n you succinctly present some of these parameters and how they influence ur projects?

MB

There is a perpetual fight against regulations. We attempt daily to interpret them in order to understand the spaces within which the regulations allow us to operate. The very notion of regulation is against the nature of architecture. A regulation is based on existing models. New architecture tends to alter, to force the status quo, and is therefore in a perpetual battle with the codes. It is a continuous love-hate relationship between the regulations and the architects. On the one hand, the code is a structure which offers one set path, and may, therefore, have a positive effect. On the other hand, one takes risks because there are creative needs related to the organization of spaces, but they tend to violate regulations. Understanding the limit one is to operate within the codes becomes the crux of the problem. When regulations become too tight, architecture is smothered. When regulations become too open-ended, extremely all-inclusive, one is not provided with clear elements of reference, which, for better or for worse, simplify the travails of an architect. I feel that as an architect, I must be against regulations and codes of any kind. I attempt to break them every time; but I am grateful in a sense, because given the regulations, I know the limitations within which to work. I always attempt to operate beyond the letter of the law, both by respecting as well as by escaping it. I enjoy the game of breaking out of an established norm or convention, so that architecture forces and alters its dimensions and structure. I did a project recently where I realized that my building was completely inside the code. I became very upset. As a consequence, I made the house a bit taller in order to fall outside the code. It is in this way that I extract my pleasure by interpreting the code through forms. To follow the code and to be inside the norm means to end up in banality. The forcing of the code, instead, may give one the feeling of forcing the established standard, the conventions. Therefore, in a certain sense, one obtains a method of measuring, or dealing with a set of new exigencies.

uld you please speak of more concrete examples. Which regulations in rticular are you talking about? And how did you pull off having a building gher than the code permitted?

MB

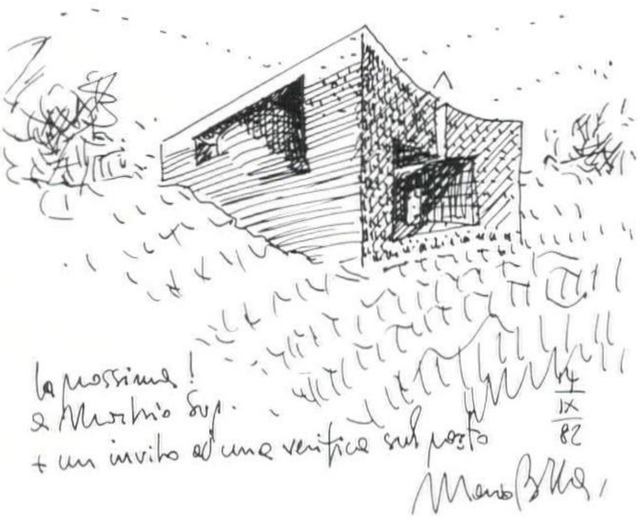
The height, in Switzerland, is a very shocking imposition. It is measured from the lowest point of the building, on the slope. Because our terrain configuration is usually very steep, we are forced to excavate quite a bit inside the hill and use the high side of the project as the measuring point so that the building height limitation does not make the project a practical impossibility. The current regulation is absurd because it was fixed at about twenty-five feet in terms of a flat site. Ironically, in our country, more often is the case that the geographic configuration imposes that we work with sloped sites. Precisely because the regulation is so stupid, I take great pleasure in fighting it. Whenever possible, I love to steal every inch available.

LD
It appears that you are becoming more and more involved in building, competitions and projects outside of Switzerland. Do you see this resulting from increased interest in your work outside Switzerland, or as a difficulty in finding substantial work within your own country?

MB
The architect must go wherever there is work.

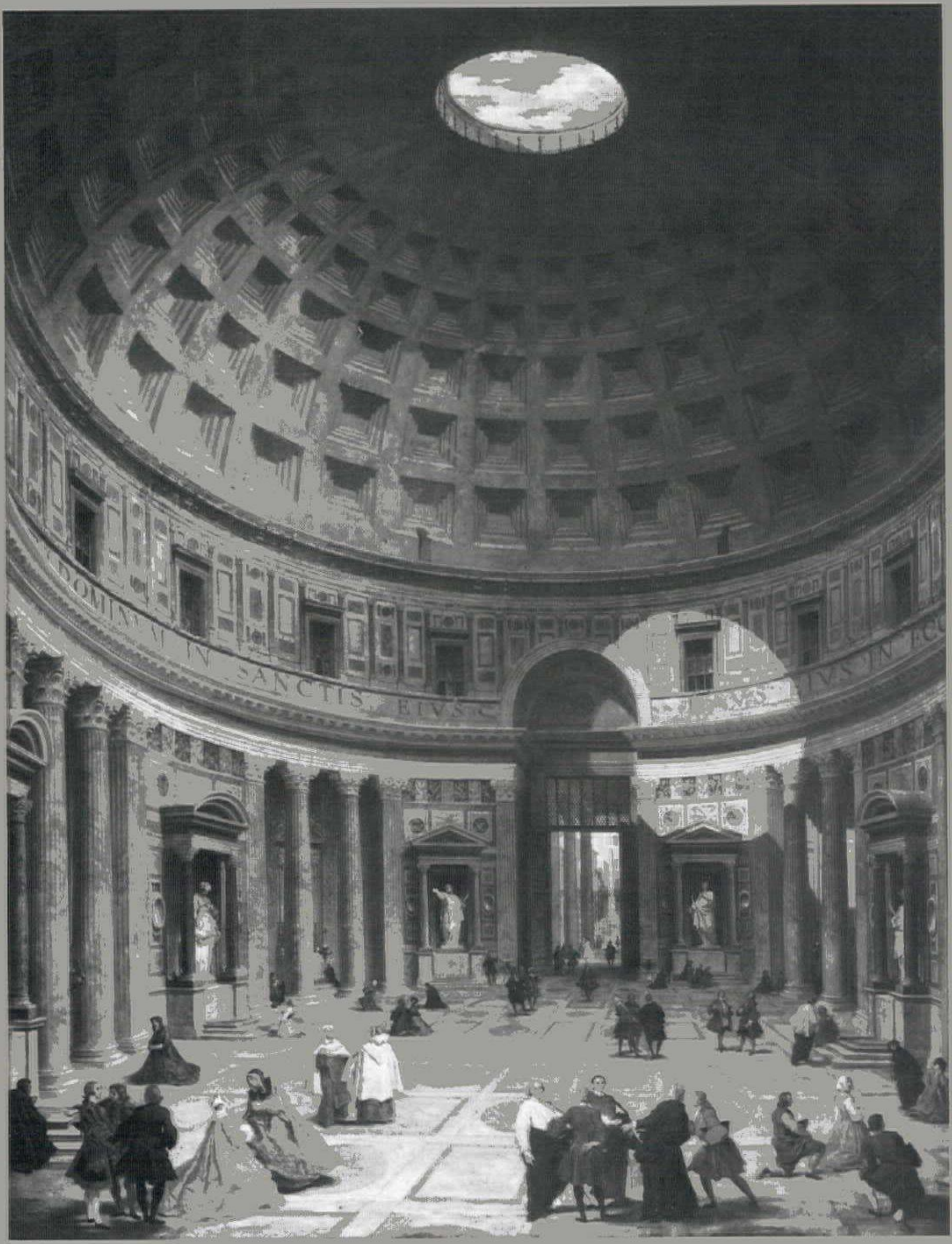
LD
Should not the work come to the architect?

MB
That would please me very much, but I believe the procedure is precisely the reverse. It is, for example, contrary to the painter's endeavor if he works outside of his atelier, but the architect must step out and meet reality. This reality must often be found quite far away geographically, because the architect needs the money to make his houses, he needs constraints, and he needs new situations. By its very nature architecture takes him to far away places. I would like very much to be able to work in my home region. Home is where man can offer his best, because he knows his culture, his roots, consequently he can perhaps have insights into his neighbor's most secret aspirations. It is always a pleasure and only natural to work where one is born. Regretfully, though, I live in a very small country and, in particular, in Ticino which has a population of only 250,000. I am therefore obliged to move around, by way of entering competitions, or through outside commissions. I have also a great uneasiness due to the desire to make. There are architects who are content to make one project well at a time. I need to have many projects going simultaneously to feed this hunger of mine. This desire does not allow me peace as an architect, and I am continually forced to look everywhere in order to be able to make. I do not pretend to say that this is a badge of honor, for God's sake! But, without quantity there is no continuity. I believe that experimentation is necessary and I also believe that work is necessary. To me, it seems that it would be impossible to think that Picasso could do only twenty paintings during his life. Picasso made twenty thousand paintings and he is Picasso for this reason.



24
Sketch for Livio Dimitriu, upon the occasion of the interview.

The Symbolism of Centric and Linear Composition



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Perspecta: The Yale Architectural Journal, Volume 20 0079-0958/83/20139-008$3.00/0

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to Gyorgy Kepes

The following investigation belongs to a recent attempt of mine to derive the compositional pattern of works of visual art from the interaction of two spatial systems. Since the theory concerns the very foundation of visual form, it must apply universally to all modes of visual expression or else be invalid. In a recent book, *The Power of the Center,*[1] I have tried to show mainly that the theory holds for painting and sculpture. The present essay applies it more explicitly to architecture.

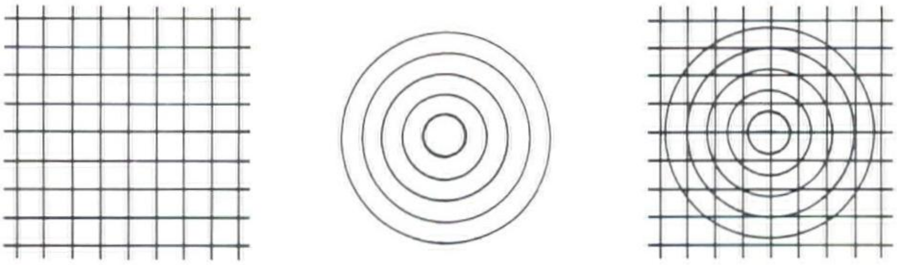
The two compositional systems in question may be called the centric, or cosmic, and the Cartesian or grid system. Centric systems come about in the physical world and also in psychological experience when a field of forces is left free to organize around an internal center. Planetary systems and the atomic model offer examples, and so do blossoms, snowflakes, or, in the arts, circular ornaments such as Gothic rose windows. The other system takes its geometrical shape from a Cartesian grid of parallels crossing one another at right angles. This second system, like the first, must be conceived beyond the mere geometry as a pattern of forces. Viewed dynamically, the grids consist of vectors oriented not toward internal but toward external centers, by which they are attracted or for which they strive. In the physical world, the relation of terrestrial objects to gravity can serve as an example: towers, columns, tree trunks, and upright human figures conform to this frame of reference.

The interaction of the two systems yields the compositional pattern here under discussion (figure 1). Its universal validity will have to be established in two quite different ways. First, it must be shown much more explicitly than I can do now, that this particular dynamic configuration comes about by necessity when the forces constituting a physical and eventually a physiological field respond to dynamic centers placed at particular positions. An example taken from the work of Pier Luigi Nervi will be given at the end of this paper. Second, the compositional p tern will be valid aesthetically only if it symbolizes the human condition in a su ficiently universal manner. My contentio is that the centric system stands for the concern of any entity, be it physical or mental, individual or collective, with its own intrinsic nature and goals, whereas the grid system illustrates the relation t external power centers to which such a entity must respond. I refer to this copin with external powers as the "tragic" element of the human condition.

In painting, the compositional scheme refers mainly to the upright projection of the picture plane. Works of sculpture, on the other hand, are truly three-dimensional, and so are buildings. Correspondingly, the compositional pattern fit for such works must also be thre dimensional. To facilitate the analysis, t spatial model is decomposed into vertic and horizontal projections, elevation an groundplan.

In architecture, therefore, our compositional pattern must apply to both spatial dimensions, the vertical and the horizontal. Dynamic action in the vertical is dom nated by the building's response to the force of gravity. The visual action I am di cussing here reflects the physical relatio of the building material to the terrestrial power of attraction but is not identical with that relation. Building material resists the force of gravity only passively, namely when some support holds it in place and prevents it from dropping to the ground. Architecture as a configuration of visual shapes, however, is animated by the antagonistic interplay between forces surrendering to the pow in the ground and counterforces overcoming that power by striving toward th sky. This visual tug-of-war is embodied mostly along the verticals and horizontal of the upright dimension, i.e., in the network of the Cartesian grid.

Except for the facility of staircases and elevators, human beings are excluded



1
The interaction of centric and linear compositional patterns.

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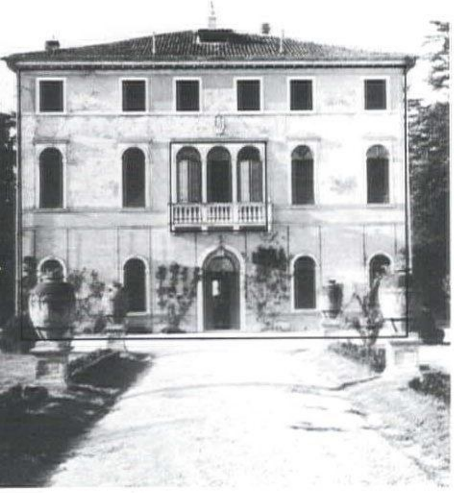
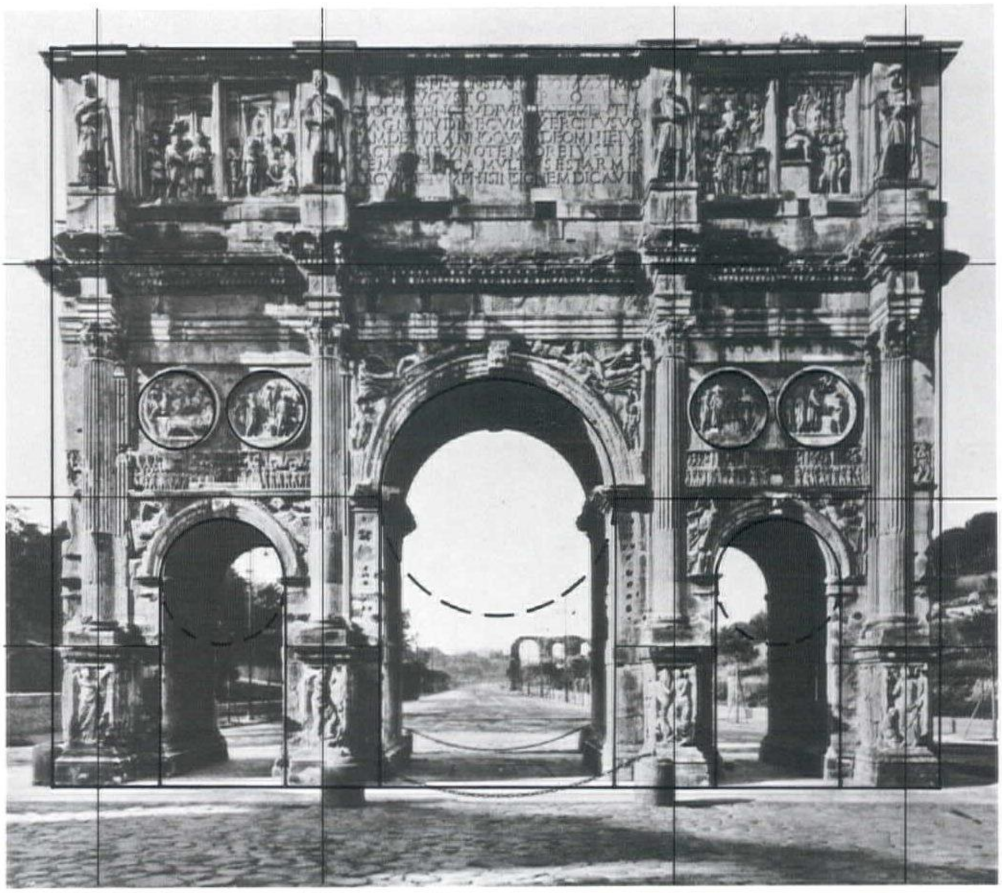
[1] **Rudolf Arnheim, *The Power of the Center: A Study of Composition in the Visual Arts* (Berkeley and Los Angeles: University of California Press, 1982).**



2
Villa Grimani-Morosini, Martellage, 16th century.

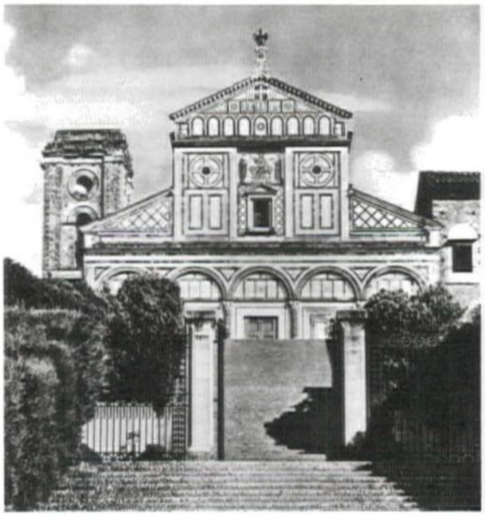


3
Arch of Constantine, Rome, 312 A.D.

from the upright dimension. As observers, however, we watch the architectural struggle with gravity as one of the most impressive symbols of spiritual striving for liberation in defiance of inertia and weight. Even so, the dominance of the Cartesian grid is not uncontested. A building cannot meet its obligation by being a mere linear channel for the action of upward and downward. Even an elevator must be a container, a massive box, organized around an internal center of its own. So must the building as a whole. Therefore, the presence of the centric system must be apparent, explicitly or not, even in a building's façade.

Façades, wherever they exist, are often convenient projections of the building's total structure in that upright dimension. They reflect the interaction of our two compositional systems by presenting the building as an object rooted in the ground and thereby responsive to an external center but also as self-contained, independently complete, and thus organized around its own internal center. When in a Venetian villa of the Renaissance a covered balcony with three arched windows protrudes from the center of the façade on the middle floor, it provides an explicit hub, around which the building gathers its mass (figure 2). This centric symmetry can never be complete, except in a spherical building, and more often centricity is limited to lateral symmetry. Lateral symmetry of a façade gathers the frontal mass of a building around a central vertical. (Compare this with a building devoid of a façade, such as Le Corbusier's Villa Savoye, in which the outer walls are not closed but fold at the corners to form a cubic object, centered around an internal axis.)

Consider the Arch of Constantine (figure 3). Every partial roundness, such as the top of an arched opening, is a compromise between our two systems: a centric closure interrupted to pay its tribute to an external power, in this case the linear attraction of the force of gravity. Yet by virtue of its roundness the semicircular top of the gate gives a partial presence to the center around which the frontal mass of the Roman monument is organized. The four medallions, halfway up the façade, remind us of completed roundness, and



4
Church of San Miniato al Monte, near Florence.

the total design, although related to the attraction of the ground by the grid of columns and cornices, maintains its cubic compactness. Visually, the structure could be lifted off the ground without damage.

There are other ways of insisting on the centricity of a façade. At San Miniato al Monte in Florence, the visual weight of top and bottom is halved by a broad ribbon (figure 4). This central division offsets the asymmetry between the roof structure and the bottom arcade. When such a horizontal division lies clearly above the visual center, as does the separation between columns and architrave in a Greek temple, the center, although not marked, serves as the level of reference in relation to which the architrave appears proudly raised. Just as in tonal music the dynamic expression of pitch is defined perceptually by a tone's position above or below the keynote even when that base is not explicitly given, so the center of every balanced visual pattern is active as a point or axis of reference, whether it is marked or not. When in a design the center is underplayed, this very neglect serves to emphasize the dominance of the Cartesian grid. In the extreme case, when the pattern no longer identifies the center at all, as on the curtain walls of our skyscrapers, the eye loses its framework and roams rudderless across an unstructured surface of arbitrary size.

In the upright dimension, then, a building must display its twofold allegiance to its own inherent center and to the powerful external center of attraction in the ground. It thereby expresses its character as a self-contained object dependent on its roots in the earth; but it also symbolizes the human mind's struggle for maintaining its own centered integrity against the interference by outer powers.

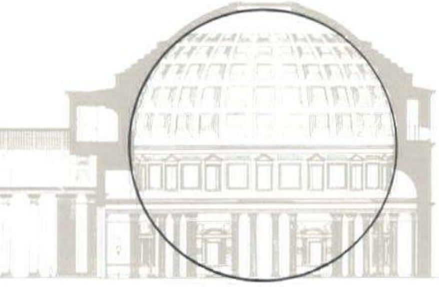
While this visual spectacle in the upright dimension is, as I said, essentially spiritual, the corresponding symbolism in the horizontal is essentially social. The level plane is the arena of human action. When our compositional pattern is applied to it, the external forces to which the vectors of the grid respond are no longer monopolized by one dominant direction. The elevation is controlled by the effect of gravitational attraction and the opposite goal of liberation from weight to which the vertical counterforces aspire. In the horizontal plane the dynamics of the grid has no such inbuilt dominant direction. Its orientation is determined by the axes prevailing in the particular design and by t external targets or centers that happen exert their influence upon the given wo of architecture.

In the world of the ground level, every architectural setting involves the intera tion between compact centralized objec and the connecting linear channels of communication. On first approach, ther fore, our two systems of centricity and earity seem to be separately embodied the two components of the architectura setting. But a closer look reminds us tha every architectural object is shaped not only by its own centricity but also by its response to the coming and going of its users, and that conversely every chann is also an object and therefore in need o a centricity of its own. The intertwining our two systems characterizes every un of the architectural setting.

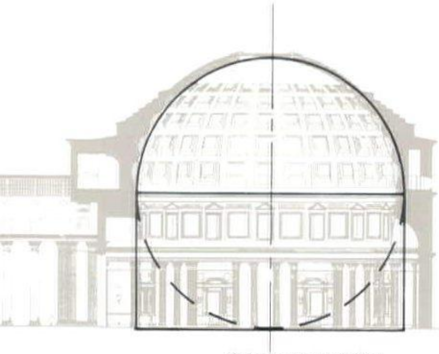
When one looks over the city of Rome from the hills of the Janiculum, one see the various circular monuments—the Pantheon, the Castel Sant'Angelo, the Colosseum—detach themselves from th fabric of the streets as self-contained units. They mark high spots of their setting but refuse to conform to it.

In round buildings the centric system o composition rules supreme. Such buildings are only one step removed from th total dominance of centricity in spherica structures. In architectural practice, of course, examples of spherical buildings are rare—we remember Boullée's Newt Memorial or the geodesic structures at the New York and Montreal world fairs. Nevertheless, spherical shape is fundamentally important in the psychology o creative invention as the germ cell of every conception of "thingness." It is th shape of origin, prior to all more specifi characteristics of objects, and can be expected therefore to be the typical start of architectural design as well. In the beginning there is an object of undifferentiated compactness, the absolute container. Architects accustomed to thinkin in terms of buildable structure rememb the primitive hut of Laugier's *Essay* whe they speculate on the origin of their trad It pays, however, to consider also its psychological root, the primordial image of the spherical capsule, in which the domi ion of self-contained centricity is not yet modified by any interaction with the out world.

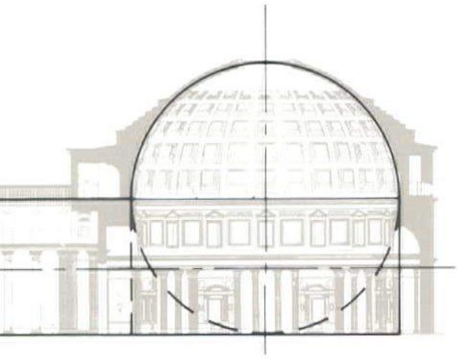
Viewed in this psychological fashion, th



Sphere.



Sphere and cylinder.



Sphere and cylinder with porch entrance.

neon, Rome, 120 A.D.

linearity of the grid system would be a secondary imposition upon the original centricity of the architectural object. It would mark the acknowledgment of the outer centers to whose power the design must respond. In such terms it might be permissible, for example, to think of the conception of the Roman Pantheon as coming about in three stages (figure 5). First, there is the original sphere, not yet a building really, but a floating bubble. At the second stage, the sphere, in deference to the force of gravity, opens into a cylinder, which roots the building in the ground. Yet the diameter and the height of the interior space of the Pantheon are still equal—a powerful remainder of primordial centricity. A further concession to linear communication comes about at the third stage when the building invites entrance by the addition of a porch.

In traditional church design, the two archetypal patterns of the centralized church and the linear channel of the basilica are clearly combined in such examples as the cathedral of Florence, where visitors are led through the nave to the focus of the sanctuary. The transformation of the Greek cross in Bramante's original plan for St. Peter's into the final Latin cross is, of course, the textbook example of such a development.

In every such instance the architect is faced with the question of how much weight should be given to the linear aspect of approach and withdrawal in relation to the concentration around the building's core. The traffic in the nave and aisles partakes in the dimension of temporal sequence, whereas the central space can be called timeless in two ways—perceptually by the exclusion of linearity from the centric area and symbolically by the attitude of the worshiper, whom meditation removes from action. In a traditional church, a crossing, for example, can be a mere superposition of two linear passages meeting at right angles. In that case, the weight of the center is reduced to a minimum. But the center can also receive an emphasis and closure of its own, as in St. Peter's, where Michelangelo's powerful piers blunt the corners of the crossing by creating four façades that face the center with its imposing baldachin.

The central block of Palladio's Villa Capra is a cubic structure surrounding a domed rotunda. Its static symmetry reposes on four identical pairs of corner rooms, which are separated by narrow corridors. This almost stolid centric plan receives its essential animation from the four entrance porches, which transform the massive block into a crossing (figure 6). The four narrow corridors become the avenues of access from the entrances to the central hall; perceptually speaking, they are changed from "ground" into "figure" and are made the carriers of the linear grid, which emphasizes the communicative coming and going between outside and inside (figure 7). The seclusive little fortress is opened thereby to the flow of a gay hospitality.

Thus, in the horizontal plane the interaction between the centric and the Cartesian system is essentially a symbol of social behavior. Consider, in this connection, Bernini's square for St. Peter's. The two half-circles of the colonnades mold the crowd around the obelisk of the center by pressing it inward. This stable gathering is traversed, as a river flows through a lake, by the linear axis of approach to the cathedral. The twofold dynamics is reflected in the ratio between centric and longitudinal features, expressed by the

adio, Villa Capra, now
marana or "Rotunda",
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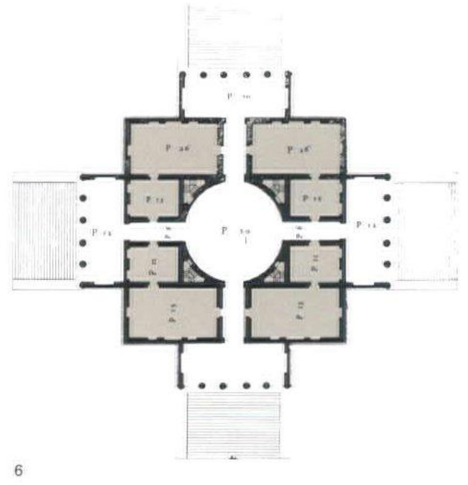

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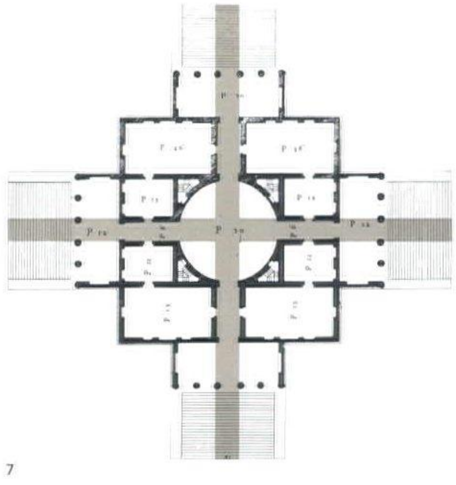
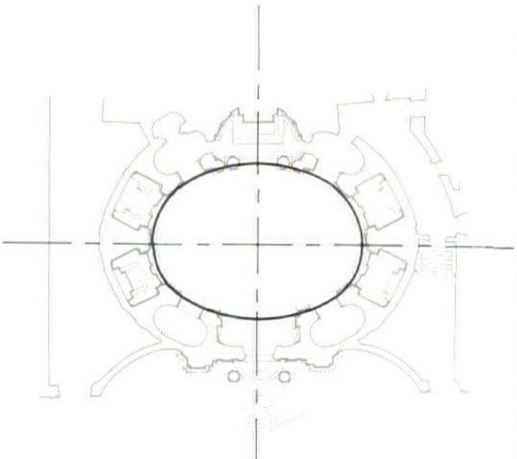


7

designer through the relations within and between the architectural elements. The crowd, after having congregated in its own centric compacted shape, transforms itself into a linear progression, in response to the attractive power of the sanctuary.



8
Bernini, San Andrea al Quirinale, Rome, 1658-70.

Bernini's colonnades bring to mind what I observed earlier about arches. Every partial round, be it half of a circle, cylinder, sphere, or combination of these, offers a centric enclosure curtailed by the axis of approach and captures the vector of that axis in its embrace. Just as in the vertical dimension an arch or cupola stops the ascent and collects the rising flow of visual dynamics around an elevated center, so an apse or chapel takes hold of the approaching visitors in the horizontal dimension and anchors them to a focus of tranquility. When centricity prevails, as under a dome or cupola, the visitors are arrested and spellbound. A cylindrical tunnel vault, on the other hand, guides them by its linearity while holding them at the same time to their course by the roundness of its section.

An ellipse combines the centric with the linear tendency. When the elliptic plan of a church coincides with the main axis of the building, as in Borromini's San Carlo alle Quattro Fontane, it strengthens the linear path from the entrance to the altar and, in turn, is confirmed in its own distention by the building. When, however, the ellipse is placed at right angles to the sagittal axis of the building, as in Bernini's S. Andrea al Quirinale, it counteracts the path from the entrance to the altar (figure 8). A kind of Greek cross, formed by the two axes, emphasizes the center and approaches the effect of a centralized church.

The problem of how best to combine the demands of the two compositional systems is sometimes dramatically evident in the history of an architectural design. Le Corbusier's Carpenter Center for the Visual Arts at Harvard, so fully documented in the recent publication by Eduard F. Sekler and William Curtis, offers an example.[2] The completed building presents itself as a compact, roughly cylindrical mass, traversed on the third floor by an S-shaped ramp (figure 9). In the earliest sketch by the architect, the role of the linear ramp was much more pronounced (figure 10). Almost like a street, it separated two blocks of studios that faced each other in opposition. This early vision of the art center as an avenue of transit on campus had to contend with the even more elementary task of how to provide the building with enough centric unity and particularly how to accommodate th central trunk of staircase, elevator, etc.

The insistent difficulty encountered by th architectural team in trying to reconcile the freight elevator with the crossing ramp is most illuminating. Beyond the technical problem of how to get the two means of transportation out of each other's way, one senses the architect's en deavor to find the appropriate balance b tween the self-containedness of the art school and its social interrelation with th rest of the university. In the finally executed design, the lateral wings of the studios are integrated with the central vertical core to create a kind of pinwheel effect (figure 11). The ramp, by piercing the building, still serves to strengthen some of the intended subdivisions, but without upsetting the unity of the whole.

When the relations of buildings to their surroundings are considered, it is releva to remember that both our compositiona patterns are boundless. The concentric rings, or spherical shells, of the centric system converge to a point in the middle but continue outwardly as far as the power of the center reaches. Similarly, th vectors constituting the grid are not limited in length and number. The field of forces to which the composition conform its structure spreads beyond the actual boundaries of the building.[3] Thus, the ramp of the Carpenter Center continues visually somewhat beyond its actual end ings and the convexities of the cylindrica studio areas invade the adjoining space. Of course, each building or complex of buildings has a structural pattern of its own. Complex interferences between the various fields of forces result, therefore, in the open spaces between the building

I have left some of the trickier issues for the end of my presentation. One of them concerns the location of the compositional center in a three-dimensional object. Thus far, my discussion has been limited to the customary projections, the elevation and the plan. In either dimension the internal center of the centric sys tem can be indicated without difficulty. But, of course, the building as a three-dimensional whole must also balance around its visual center, just as physicall every object has a center of gravity. It is not always easy to determine the set of

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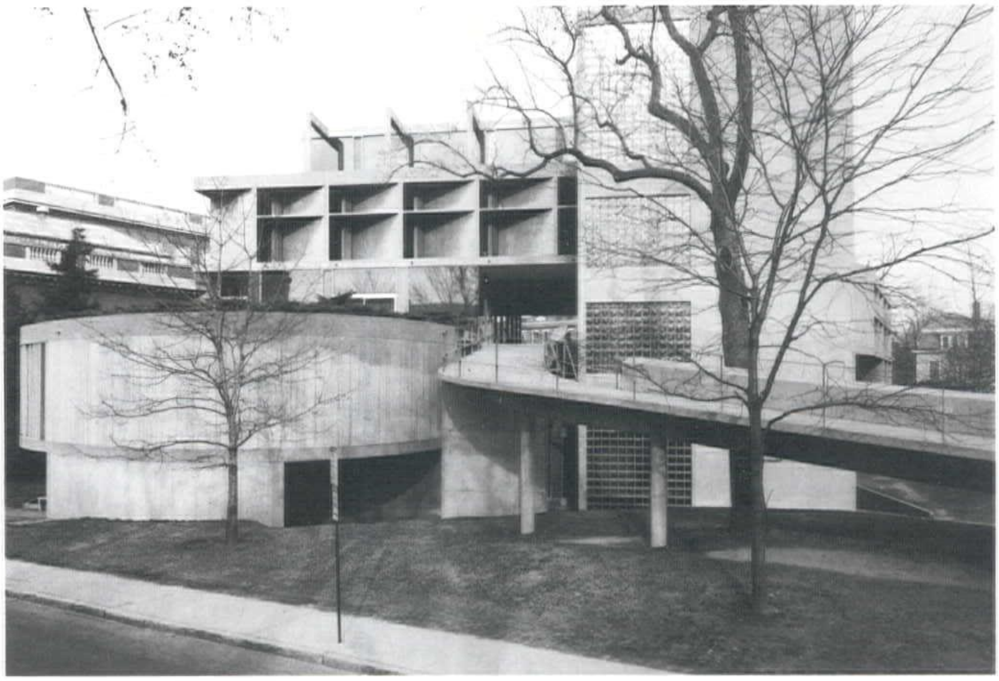
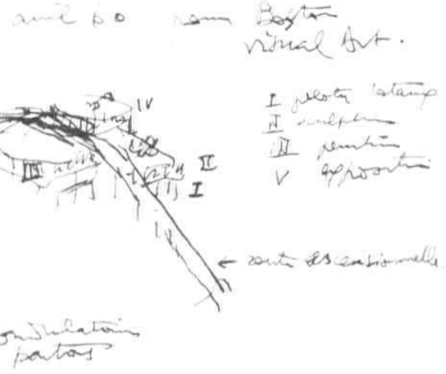
[2] Eduard Sekler and William Curtis, *Le Corbusier at Work: The Genesis of the Carpenter Center for the Visual Arts* (Cambridge: Harvard University Press, 1978).

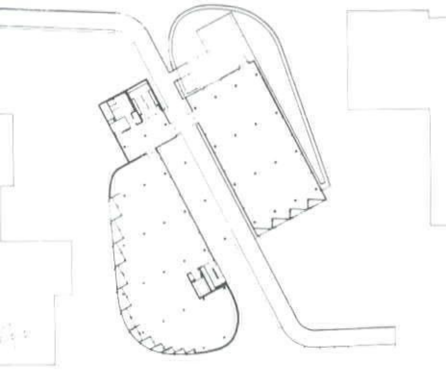
[3] Rudolf Arnheim, *The Dynamics of Architectural Form* (Berkeley and Los Angeles: University of California Press, 1977), p. 28.



9
Le Corbusier, Carpenter Center for the Visual Arts, Cambridge, Mass., 1965, West Facade.



penter Center for the Visual
, initial sketch, April 1960.



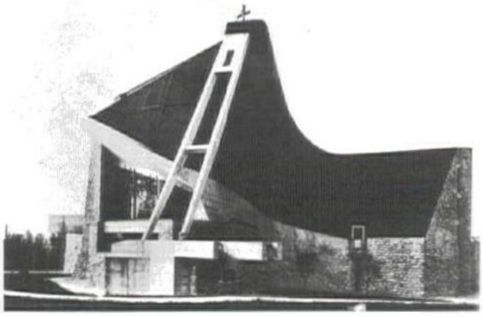
penter Center for the Visual
, plan.

forces upon which the visual center depends. Look at Pannini's familiar painting of the Pantheon's interior. It places the viewer considerably above the heads of the fashionable ladies and gentlemen who populate the floor of the rotunda. If that viewer, suspended in space, were to locate the balancing center of the interior, he might place it somewhere halfway up the central vertical, perhaps at the level of the cornice between the cupola and the drum of the colonnade. A person looking into a small model of the Pantheon might do the same. But would this also be true for the visitors on the floor? A viewer's perspective contributes an influential vector to the play of forces that balances the composition, and this vector may be strong enough to place the perceptual center of the interior lower down, possibly at the viewer's own eye level. Is the architect, then, to determine the balancing center of his design for the three-dimensional volume as such or in relation to the perspective of the viewer? Or must he consider both views and balance them against each other?

Few buildings are composed so simply of one piece as the Roman Pantheon. Therefore the balancing center of the whole, although indispensable for a check on the ultimate order of the design, is generally less conspicuous than the centers of the subwholes of which the building is put together. Furthermore, only centric shapes, such as disks or spheres, clearly organize around a point-sized center. Elongated shapes are controlled mainly by their central axis. A traditional nave, such as that of the cathedral of Florence, has a horizontal spine, whereas the cylindrical space of the crossing below the cupola is controlled by a central vertical. The relation between the two axes is influential when the two principal units of the building are being balanced against each other.

Rarely, of course, is the principal interior of a building one continuous whole. When it consists of separate enclosed units, each room has its own centricity, but each room must also be seen in the context of the building as a whole. On the part of the architect, this requires a vision that transcends the limited views available to an actual visitor at any particular location.

A problem of method arises when one applies a compositional scheme, such as my present one, to a variety of examples. The conditions of visual composition to which the scheme refers are so basic that, as I said in the beginning, it holds either for all instances or for none at all. An architect's actual invention may stretch the deviation from the compositional skeleton quite daringly; but our premise would have to be that unless his design is visually relatable to that skeleton, it would lose the very base of its validity. Think



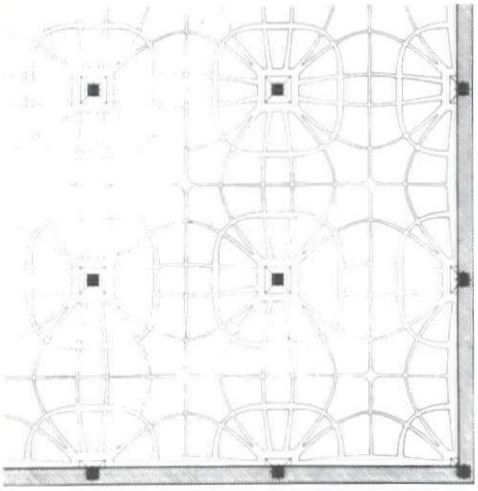
12
Giovanni Michelucci, Church of the Autostrada de Sole, Florence, 1960.

of an unorthodox structure such as Michelucci's church of the Autostrada del Sole (figure 10). If we do not succeed in relating such a design to our underlying schema, we are in the delicate position of having to assert either that the building is visually a failure or that our principle does not hold, at least not universally. If we have established a general rule, violations will be as fatal as a builder's infraction of the laws of statics. Therefore, although we may be accused of trying to save a pet theory, we shall have to insist that it offers a necessary criterion for the design's success.

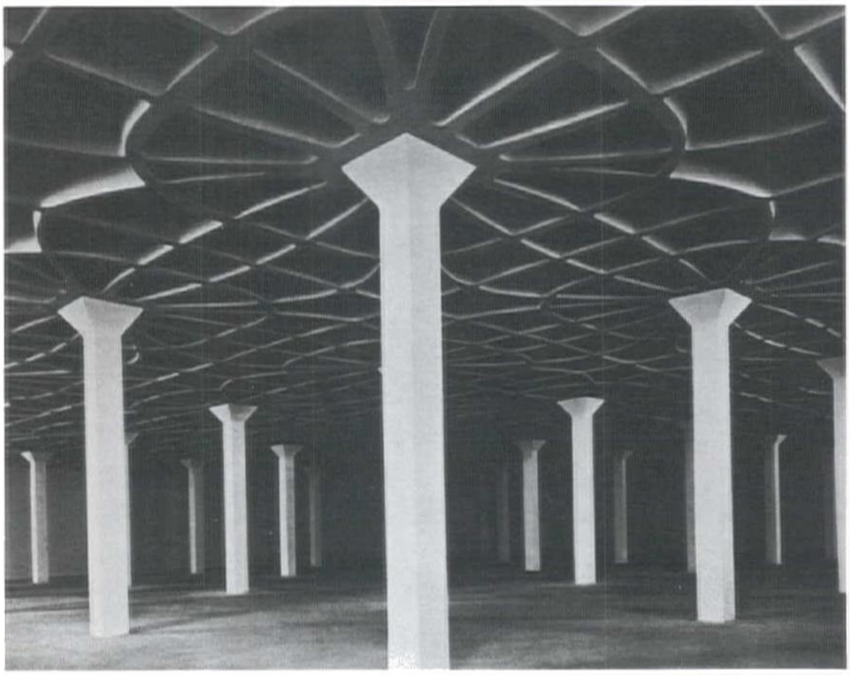
This raises the final question: From where does our compositional scheme derive its claim to general validity? If it were nothing but the codification of a stylistic preference, the claim would be absurd. The history of compositional theory is strewn with the corpses of aesthetic norms that were believed to unlock the secrets of beauty. Our own claim, however, goes beyond aesthetics. It refers back, as I suggested in the beginning, to the laws of physical nature that control the balancing of forces in their interrelation. Therefore I would expect it also to be valid for the physiological conditions in the nervous system that are reflected in visual perception. But what exactly is the condition that meets our case, and how do we demonstrate its general validity?

I will limit myself to one striking analogy. Figure 11 shows the plan of the floor slabs that Pier Luigi Nervi designed for the Gatti Wool Factory in Rome, "with ri following the isostatic lines of the principal bending moments." The diagram reproduces some of the centric systems brought about by the resistance of the supporting columns to the weight of the ceiling. The radial vectors issuing from the centers are crossed and complemented by the grid of horizontals and ve ticals that comes about because the centric systems are not alone but relate to one another (figure 12). Here, then, th condition that underlies our compositional scheme is spelled out in terms of physical statics. It is a gratifying confirm tion, which makes its generality plausible—plausible, however, only in the sen of suggesting why we can expect it to apply also physiologically; that is, to compositional patterns judged by the eye.

What is needed in addition is that the resulting configuration of forces be perceived as a compelling reflection of a human condition so basic as to be accep able as the underlying theme of all statements in the visual arts, with architectur among them. I am confident that this requirement, too, is met. We are being shown that every mental or physical system organizes around the center of its own being while coping with the powers of other similarly centric systems. Together, these systems form the world of self-contained entities interacting by aiding, completing, attracting, repelling, or disturbing one another—the world whos manifestations reverberate in what we e perience as the human fate.



13
Pier Lugi Nervi, Gatti Wool Factory, Rome, 1953, ceiling plan.



14
Gatti Wool Factory, interior.

Prospects for a Critical Regionalism

s Barragan, Las Arboledas,
61.

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> The phenomenon of universalization, while being an advancement of mankind, at the same time constitutes a sort of subtle destruction, not only of traditional cultures, which might not be an irreparable wrong, but also of what I shall call for the time being the creative nucleus of great civilizations and great cultures, that nucleus on the basis of which we interpret life, what I shall call in advance the ethical and mythical nucleus of mankind. The conflict springs up from there. We have the feeling that this single world civilization at the same time exerts a sort of attrition or wearing away at the expense of the cultural resources which have made the great civilizations of the past. This threat is expressed, among other disturbing effects, by the spreading before our eyes of a mediocre civilization which is the absurd counterpart of what I was just calling elementary culture. Everywhere throughout the world, one finds the same bad movie, the same slot machines, the same plastic or aluminum atrocities, the same twisting of language by propaganda, etc. It seems as if mankind, by approaching *en masse* a basic consumer culture, were also stopped *en masse* at a subcultural level. Thus we come to the crucial problem confronting nations just rising from underdevelopment. In order to get on to the road toward modernization, is it necessary to jettison the old cultural past which has been the *raison d'êt* of a nation? . . . Whence the paradox: o the one hand, it has to root itself in the soil of its past, forge a national spirit, an unfurl this spiritual and cultural revindic tion before the colonialist's personality. But in order to take part in modern civilization, it is necessary at the same time to take part in scientific, technical, and p litical rationality, something which very often requires the pure and simple abandon of a whole cultural past. It is a fact: every culture cannot sustain and absorb the shock of modern civilization. There i the paradox: how to become modern an to return to sources; how to revive an ol dormant civilization and take part in universal civilization. . . .
>
> No one can say what will become of our civilization when it has really met different civilizations by means other than the shock of conquest and domination. But we have to admit that this encounte has not yet taken place at the level of an authentic dialogue. That is why we are i a kind of lull or interregnum in which we can no longer practice the dogmatism of a single truth and in which we are not ye capable of conquering the skepticism int which we have stepped. We are in a tunnel, at the twilight of dogmatism and the dawn of real dialogues.[1]
>
> *Paul Ricoeur*

The term critical regionalism is not intended to denote the vernacular, as this was once spontaneously produced by the combined interaction of climate, culture, myth and craft, but rather to identify those recent regional "schools" whose aim has been to represent and serve, in a critical sense, the limited constituencies in which they are grounded. Such a regionalism depends, by definition, on a connection between the political consciousness of a society and the profession. Among the pre-conditions for the emergence of critical regional expression is not only sufficient prosperity but also a strong desire for realising an identity. One of the mainsprings of regionalist culture is an anti-centrist sentiment—an aspiration for some kind of cultural, economic and political independence.

The philosopher Paul Ricoeur has advanced the thesis that a hybrid "world culture" will only come into being through a cross-fertilization between rooted *culture* on the one hand and universal *civilization* on the other. This paradoxical proposition, that regional cultur must also be a form of world culture, is predicated on the notion that development *in se* will, of necessity, transform t basis of rooted culture. In his essay "Un versal Civilization and National Cultures' of 1961, Ricoeur implied that everything will depend in the last analysis on the c pacity of regional culture to recreate a rooted tradition while appropriating foreign influences at the level of both cultu and civilization. Such a process of cross fertilization and reinterpretation is impu by definition. This much is at once evident, say, in the work of the Portugese architect Alvaro Siza y Viera. In Siza's architecture Aalto's collage approach to building form finds itself mediated by normative typologies drawn from the work of the Italian Neo-rationalists.

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[1] Paul Ricoeur, "Universal Civilization and National Cultures", *History and Truth* (Evanston, Illinois: Northwestern University Press, 1961) pp. 276, 283.

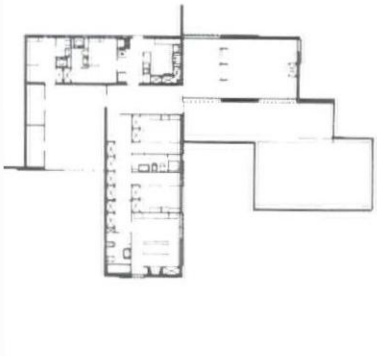
It is necessary to distinguish at the outset between critical regionalism and the simplistic evocation of a sentimental or ironic vernacular. I am referring, of course, to that nostalgia for the vernacular which is currently being conceived as an overdue return to the ethos of a popular culture; for unless such a distinction is made one will end by confusing the resistant capacity of Regionalism with the demagogic tendencies of Populism. In contradistinction to Regionalism, the primary goal of Populism is to function as a *communicative or instrumental sign*.[2] Such a sign seeks to evoke not a critical perception of reality, but rather the sublimation of a desire for direct experience through the provision of information. Its tactical aim is to attain, as economically as possible, a preconceived level of gratification in behavioristic terms. In this regard, the strong affinities of Populism for the rhetorical techniques and imagery of advertising is hardly accidental.

On the other hand, Critical Regionalism is a dialectical expression. It self-consciously seeks to deconstruct universal modernism in terms of values and images which are locally cultivated, while at the same time adulterating these autochthonous elements with paradigms drawn from alien sources. After the disjunctive cultural approach practised by Adolf Loos, Critical Regionalism recognizes that no living tradition remains available to modern man other than the subtle procedures of synthetic contradiction. Any attempt to circumvent the dialectics of this creative process through the eclectic procedures of historicism can only result in consumerist iconography masquerading as culture.

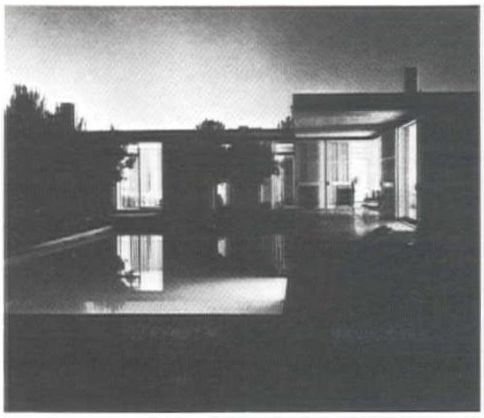
It is my contention that Critical Regionalism continues to flourish sporadically within the cultural fissures that articulate in unexpected ways the continents of Europe and America. These borderline manifestations may be characterized, after Abraham Moles, as the "interstices of freedom."[3] Their existence is proof that the model of the hegemonic center surrounded by dependent satellites is an inadequate and demagogic description of our cultural potential.

Exemplary of an explicitly anti-centrist regionalism was the Catalonian nationalist revival which first emerged with the foundation of the Group R in the early Fifties. This group, led by J. M. Sostres and Oriol Bohigas, found itself caught from the beginning in a complex cultural situation. On the one hand, it was obliged to revive the Rationalist, anti-Fascist values and procedures of GATEPAC (the pre-war Spanish wing of C.I.A.M.); on the other, it remained aware of the political responsibility to evoke a realistic regionalism; a regionalism which would be accessible to the general populace. This double-headed program was first publicly announced by Bohigas in his essay, "Possibilities for a Barcelona Architecture,"[4] published in 1951. The various impulses that went to make up the heterogeneous form of Catalonian Regionalism exemplify, in retrospect, the essentially hybrid nature of an authentic modern culture. First, there was the Catalonian brick tradition which evidently dates back to the heroic period of the *Modernismo*; then there was the influence of Neoplasticism, an impulse which was directly inspired by Bruno Zevi's *La poetica della architettura neoplastica* of 1953 and, finally, there was the *revisionist* style of Italian Neo-Realism – as exemplified above all in the work of Ignazio Gardella.[5]

The career of the Barcelona architect J. A. Coderch has been typically Regionalist inasmuch as it has oscillated, until recent date, between a mediterraneanized, modern brick vernacular – Venetian in evocation – apparent, say, in his eight-storey brick apartment block built in Barcelona in the Paseo Nacional in 1952–54 (a mass articulated by full-height shutters and overhanging cornices), and the avant-gardist, Neoplastic composition of his Casa Catasús completed at Sitges in 1957. The work of Martorell, Bohigas and Mackay has



A. Coderch and Jésus Sanz, sa Catasus, Sitges, celona, 1958, plan.



2
Casa Catasus, exterior.

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braham Moles, "The Three Cities", *Directions in Art, heory and Aesthetics*, ed. Anthony Hill (London: ber and Faber, Limited, 1968), p. 191.

n Mukařovský, *Structure, Sign and Function* (New aven: Yale University Press, 1970), p. 228. Perhaps I n overstating the case. However, Mukarovsky rites: "The artistic sign, unlike the communicative gn, is not serving, that is, not an instrument."

Bohigas, "Posibilidades de una arquitectura rcelona", *Destino* (Barcelona, 1951). See also Bohigas, "Disenar para un publico o contra un blico", in Seix Barral, *Contra una arquitectura jetivida* (Barcelona, 1969).

e Ignazio Gardella's Casa Borsalino Apartments ilt in Alexandria in 1951.

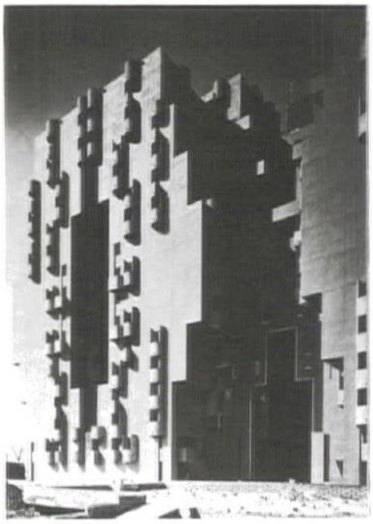
tended to oscillate between comparable poles; between, on the one hand, an assumed brick vernacular close to the work of Coderch and Gardella[6] and, on the other, their Neo-Brutalist public manner; this last being best exemplified in the technical rationalism of their Thau School built in the suburbs of Barcelona in 1975.

The recent deliquescence of Catalonian Regionalism finds its most extreme manifestation in the work of Ricardo Bofill and the Taller de Arquitectura. For where the early work of Bofill (for example, the Calle Nicaragua apartments of 1964) displayed evident affinity for the re-interpreted brick vernacular of Coderch, the Taller was to adopt a more exaggerated rhetoric in the Seventies. With their Xanadu complex built in Calpe (1967), they entered into a flamboyant romanticism. This castellated syntax reached its apotheosis in their heroic, but ostentatious, tile-faced Walden 7 complex at Saint-Just Desvern (1975). With its twelve-storey voids, underlit living rooms, miniscule balconies and its now disintegrating tile cladding, Walden 7 denotes that delicate boundary where an initially sound impulse degenerates into an ineffective Populism – a Populism whose ultimate aim is not to provide a liveable and significant environment but rather to achieve a highly photogenic form of scenography. In the last analysis, despite its passing homage to Gaudi, Walden 7 is devoted to a form of *admass* seduction. It is architecture of narcissism *par excellence*, for the formal rhetoric addresses itself mainly to high fashion, and to the marketing of Bofill's flamboyant personality. The Mediterranean hedonistic utopia to which it pretends collapses on closer inspection, above all at the level of the roofscape where a potentially sensuous environment has not been borne out by the reality of its occupation.

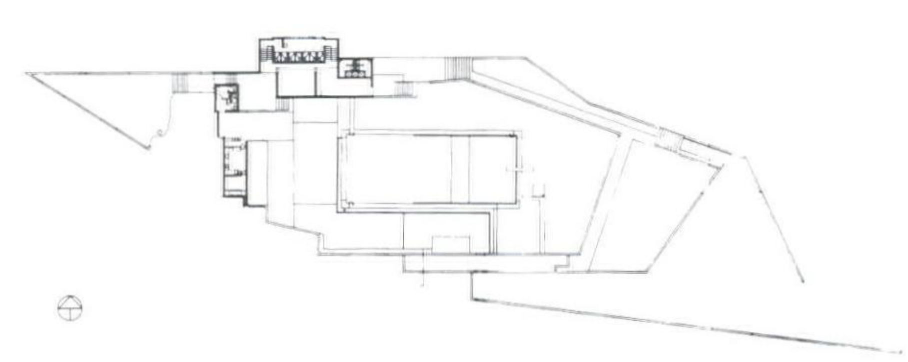
Nothing could be further from Bofill's intentions than the architecture of the Portugese master Alvaro Siza y Viera, whos career, beginning with his swimming po at Quinta de Conceicad, completed in 1965, has been anything but photogenic This much can be discerned not only fro the fragmentary evasive nature of the published images but also from a text written in 1979:

> Most of my works were never published; some of the things I did we only carried out in part, others wer profoundly changed or destroyed. That's only to be expected. An arch tectonic proposition whose aim is t go deep . . . a proposition that intends to be more than a passive m terialisation, refuses to reduce that same reality, analysing each of its aspects, one by one; that proposition can't find support in a fixed im age, can't follow a linear evolution. . . . Each design must catch, with the utmost rigour, a precise moment of the flittering image, in all its shades, and the better you ca recognize that flittering quality of reality, the clearer your design will be. . . . That may be the reason wh only marginal works (a quiet dwelling, a holiday house miles away) have been kept as they were originally designed. But something remains. Pieces are kept here and there, inside ourselves, perhaps fathered by someone, leaving marks on space and people, melting into process of total transformation.[6]

It could be argued that this hypersensitivity toward the fluid and yet specific nature of reality renders Siza's work more layered and rooted than the eclect tendencies of the Barcelona School for, I

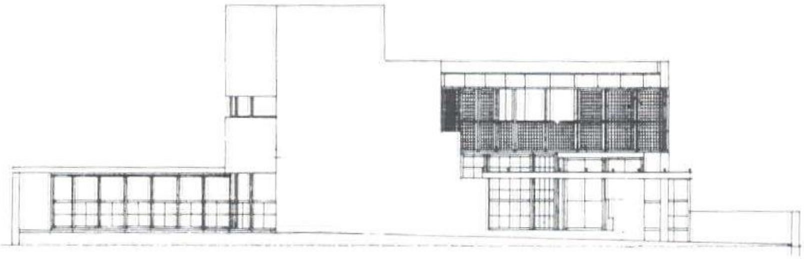


3
Ricardo Bofill, Walden 7, Saint-Just Desvern (near Barcelona), 1975.



4
Alvaro Siza y Viera, Quinta de Conceicad, Matosinhos, Portugal, 1958-65, plan.

6
A. Siza, "To Catch a Precise Moment of Flittering Images in All its Shades", *Architecture and Urbanism*, Tokyo, no. 123, December 1980, p. 9.



a y Viera, Bires House,
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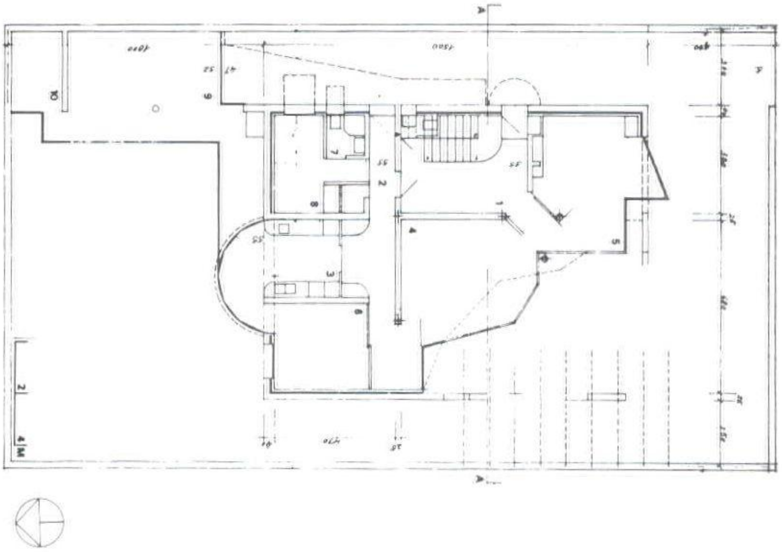
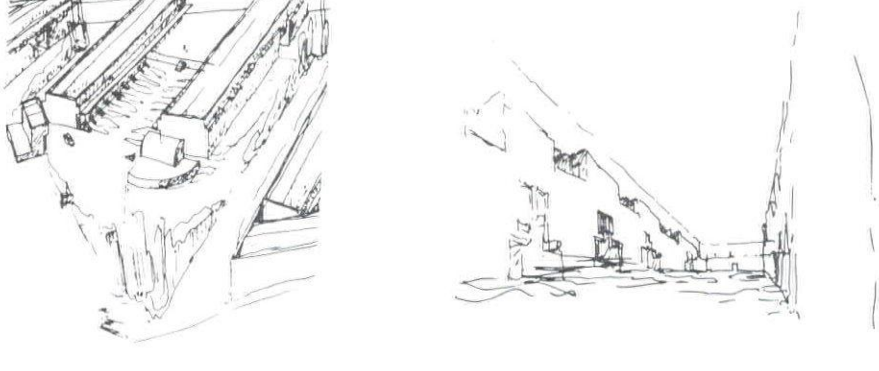


es House, plan.

taking Aalto as his point of departure, he seems to have been able to ground his building in the configuration of a given topography and in the fine-grained specificity of the local context. To this end his pieces are tight responses to the urban fabric and marinescape of the Porto region. Other important factors are his extraordinary sensitivity towards local materials, craft work, and, above all, to the subtleties of local light – his sense for a particular kind of filtration and penetration. Like Aalto's Jyvaskyla University (1957), or his Saynatsalo City Hall (1949), all of Siza's buildings are delicately layered and inlaid into their sites. His approach is patently tactile and materialist, rather than visual and graphic, from his Bires House built at Povoa do Varzim in 1976 to his Bouca Resident's Association Housing of 1977. Even his small bank buildings, of which the best is probably



y Viera, Bouca Residents
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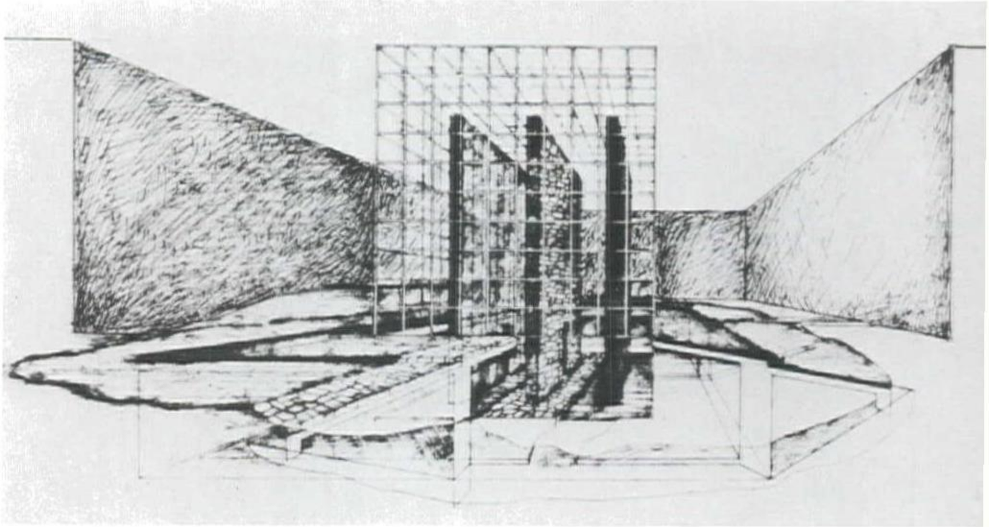
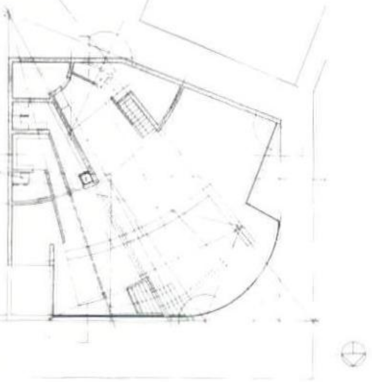
9
Raimund Abraham, House with Three Walls, project, 1972-75.





8
Siza y Viera, Pinta Branch Bank, Oliveira de Azemeis, 1974.

the Pinto branch bank built at Oliveira de Azemeis in 1974, are topographically conceived and structured.

The theoretical work of the New York-based Austrian architect Raimund Abraham may also be seen as having latent regionalist connotations inasmuch as this architect has always stressed place creation and the topographic aspects of the built environment. The House with Three Walls (1972) and the House with Flower Walls (1973) are typical ontological works of the early Seventies, wherein the project evokes the oneiric essence of the site, together with the inescapable materiality of building. This feeling for the tectonic nature of built form and for its capacity to transform the surface of the earth has been carried over into Abraham's recent designs made for International Bauausstellung in Berlin, above all his recent projects for South Friedrichstadt, designed in 1981.

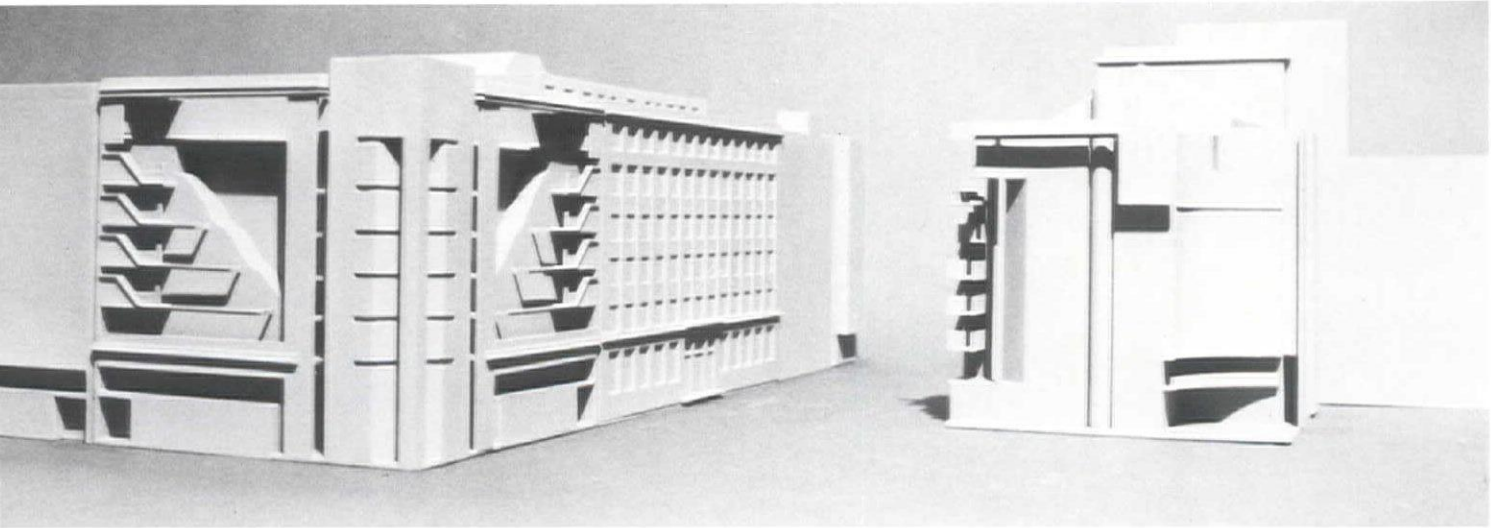
An equally tactile but more specifically regionalist approach is obtained in the case of the veteran Mexican architect Luis Barragán, whose finest houses (many of which have been erected in the suburb of Pedregal) are nothing if not topographic. As much a landscape designer as an architect, Barragán has always sought a sensual and earthbound architecture; an architecture compounded out of enclosures, stelae, fountains, water courses, color saturation; an architecture laid into volcanic rock and lush vegetation; an architecture that refers only indirectly to the Mexican colonial *estancia*. Of Barragán's feeling for mythic and rooted beginnings it is sufficient to cite his memories of the apocryphal *pueblo* of his youth:

> My earliest childhood memories are related to a ranch my family owned near the village of Mazamitla. It was a *pueblo* with hills, formed by houses with tile roofs and immense eaves to shield passersby from the heavy rains which fall in that area. Even the earth's color was interesting because it was red earth. In this village, the water distribution system consisted of great gutted logs, in the form of troughs, which ran on a support structure of tree forks, 5 meters high, above the roofs. This aqueduct crossed over the town, reaching the patios, where there were great stone fountains to receive the water. The patios housed with stables, with cows and chickens, all together. Outside, in the street, there were iron rings to tie the horses. The channeled logs, covered with moss, dripped water all over town, of course. It gave this village the ambience of a fairy tale.
>
> No, there are no photographs. I have only its memory.[7]

This remembrance has surely been filtered through Barragán's life-long involvement with Islamic architecture. Similar feelings and concerns are eviden in his opposition to the invasion of privacy in the modern world and in his criticism of the subtle erosion of nature which has accompanied postwar civilization:

> Everyday life is becoming much too public. Radio, T.V., telephone all invade privacy. Gardens should therefore be enclosed, not open to public

7
Emilio Ambasz, *The Architecture of Luis Barragan* (New York: The Museum of Modern Art, 1976) p. 9.



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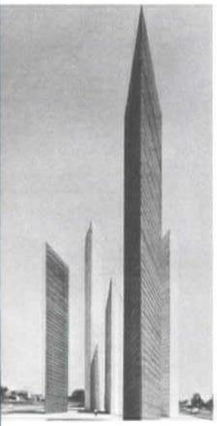


is Barragan with Mathias
ertiz, Satellite City Towers,
67.

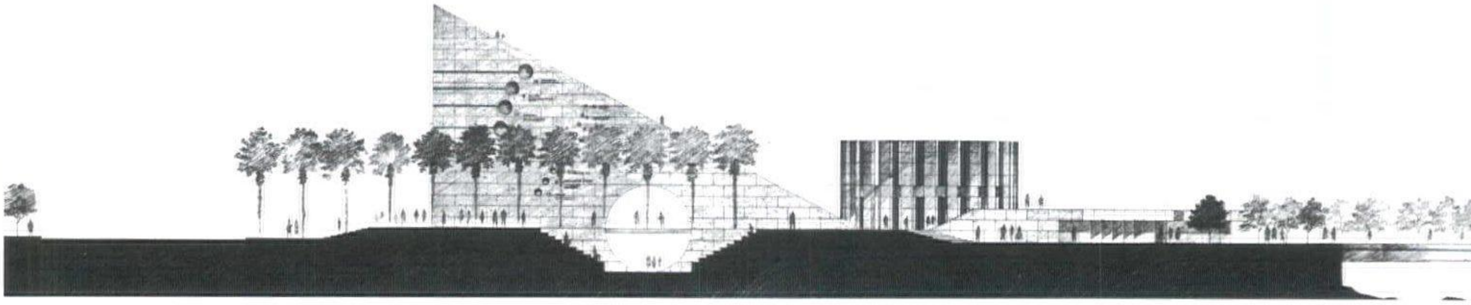
> gaze. . . . Architects, are forgetting the need of human beings for half-light, the sort of light that imposes a tranquility, in their living rooms as well as in their bedrooms. About half the glass that is used in so many buildings–homes as well as offices–would have to be removed in order to obtain the quality of light that enables one to live and work in a more concentrated manner . . . Before the machine age, even in the middle of cities, Nature was everybody's trusted companion. . . . Nowadays, the situation is reversed. Man does not meet with Nature, even when he leaves the city to commune with her. Enclosed in his shiny automobile, his spirit stamped with the mark of the world whence the automobile emerged, he is, within Nature, a foreign body. A billboard is sufficient to stifle the voice of Nature. Nature becomes a scrap of Nature and man a scrap of man.[8]

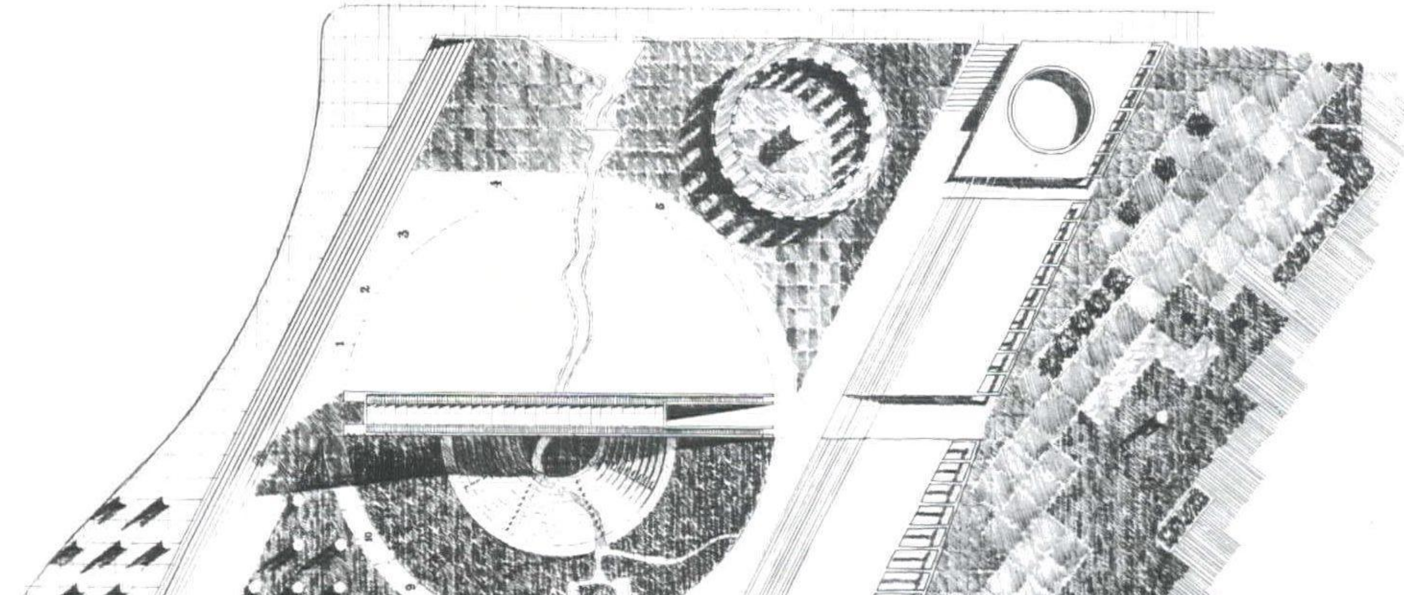
By the time of his first house and studio built in Tacubaya, Mexico D.F. in 1947, Barragán had already made a subtle move away from the universal syntax of the so-called International Style. And yet his work has always remained committed to that abstract form which has so characterized the art of our era. Barragán's penchant for large, almost inscrutable abstract planes set in the landscape is perhaps at its most intense in his garden for Las Arboledas of 1961 and his freeway monument, Satellite City Towers, designed with Mathias Goertiz in 1967.

Regionalism has, of course, manifested itself in other parts of the Americas; in Brazil in the 1940s, in the early work of Oscar Niemeyer and Alfonso Reidy; in Argentina in the work of Amancio Williams–above all in Williams' bridge house in Mar del Plata of 1945 and more recently perhaps in Clorindo Testa's Bank of London and South America, built in Buenos Aires in 1959; in Venezuela, in the Ciudad Universitaria built to the designs of Carlos Raoul Villanueva between 1945 and 1960; in the West Coast of the United States, first in Los Angeles in the late 1920s in the work of Neutra, Schindler, Weber and Gill, and then in the so-called Bay Area and Southern California schools founded by William Wurster and Hamilton Harwell Harris respectively. No-one has perhaps expressed the idea of a Critical Regionalism more discretely than Harwell Harris in his address, "Regionalism and Nationalism" which he gave to the North West Regional Council of the AIA, in Eugene, Oregon, in 1954:

> Opposed to the Regionalism of Restriction is another type of regionalism; the Regionalism of Liberation. This is the manifestation of a region that is *especially in tune with the emerging thought of the time*. We call such a manifestation "regional" *only because it has not yet emerged elsewhere*. It is the genius of this region to be more than ordinarily aware and more than ordinarily free. Its virtue is that its manifestation has *significance for the world outside itself*. To express this regionalism architecturally it is necessary that there be building,–preferably a lot of building–at one time. Only so can the expression be sufficiently general, sufficiently varied, suffi-

**Banford-Smith, *Builders in the Sun: Five Mexican*
chitects (New York: Architectural Book Publishing
., 1967) p. 74.**





ılf Associates, Fort
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npetition entry, 1982, site
ın and elevation.

> ciently forceful to capture people's imaginations and provide a friendly climate long enough for a new school of design to develop.
>
> San Francisco was made for Maybeck. Pasadena was made for Greene and Greene. Neither could have accomplished what he did in any other place or time. Each used the materials of the place; but it is not the materials that distinguish the work. . . .
>
> A region may develop ideas. A region may accept ideas. Imaginations and intelligence are necessary for both. In California in the late Twenties and Thirties modern European ideas met a still developing regionalism. In New England, on the other hand, European Modernism met a rigid and restrictive regionalism that at first resisted and then surrendered. New England accepted European Modernism whole because its own regionalism had been reduced to a collection of restrictions.[9]

Despite an apparent freedom of expression, such a level of liberative regionalism is difficult to sustain in North America today. Within the current proliferation of highly individualistic forms of narcissism – a body of work which is ultimately cynical, patronising and self-indulgent rather than rooted – only two firms today display any consistent sensitivity towards the evolution of a regional culture which is both specific and critical.

The first example would be the simple, site-responsive houses designed by Andrew Batey and Mark Mack for the Napa Valley area in California; the second would be the work of the architect Harry Wolf, whose work, which has so far been largely restricted to North Carolina, is designed out of Charlotte. Wolf's sensitivity to the specificity of place has perhaps been most intensely demonstrated in his recent competition entry for the Fort Lauderdale Riverfront Plaza. The description of this work at once displays both a feeling for the specificity of the place and a self-conscious reflection on the locus of Fort Lauderdale in history.

> The worship of the sun and the measurement of time from its light reach back to the earliest recorded history of man. It is interesting to note in the case of Fort Lauderdale that if one were to follow a 26 degree latitudinal line around the globe, one would find Fort Lauderdale in the company of Ancient Thebes – the throne of the Egyptian sun god, Ra. Further to the East, one would find Jaipur, India, where heretofore, the largest equinoctal sundial in the world was built 110 years prior to the founding of Fort Lauderdale.
>
> Mindful of these magnificent historical precedents, we sought a symbol that would speak of the past, present and future of Fort Lauderdale. . . . To capture the sun in symbol a great sundial is incised on the Plaza site and the gnomon of the sundial bisects the site on its north-south axis. The gnomon of the double blade rises from the south at 26 degrees 5 minutes parallel to Fort Lauderdale's latitude. . . .
>
> Each of (the) significant dates in Fort Lauderdale's history is recorded in the great blade of the sundial. With careful calculation the sun angles are perfectly aligned with penetrations through the two blades to cast brilliant circles of light, landing on the otherwise shadowy side of the sundial. These shafts of light illuminate an appropriate historical marker serving as annual historical reminders.
>
> Etched into the eastern side of the plaza, an enlarged map of the City shows the New River as it meets the harbor. The eastern edge of the building is eroded in the shape of the river and introduces light into the offices beneath the Plaza along its path.
>
> The River continues until it meets the semicircle of the water court where the river path creates a wall of water even with the level of the Plaza, providing a sixteen foot cascade into the pool below. The map follows the river upstream until it reaches the gnomon where, at map scale, the juncture of the blade and the river coincide exactly with the site on which the blade stands.[10]

In Europe the work of the Italian architect Gino Vallé may also be classified as critical and regionalist inasmuch as his entire career has been centered around the city of Udine, in Italy. From here Vallé was to

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larwell H. Harris, "Regionalism and Nationalism", *ıtudent Publication of the School of Design, North ˈarolina State of the University of North Carolina at ˈaleigh*, Volume 14, No. 5.

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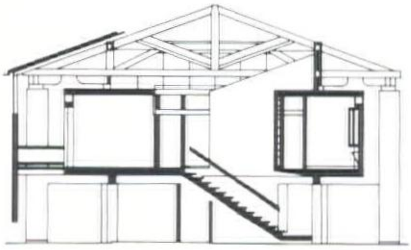
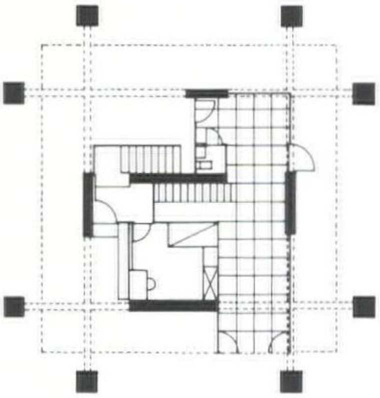
Ɔescription submitted by Harry Wolf Associates on ƃeptember 3, 1982 for the Fort Lauderdale Riverfront ᑭlaza Competition.





13
Gino Valle, Casa Quaglia, Sutrio, 1956, section.

14
Casa Quaglia, plan.

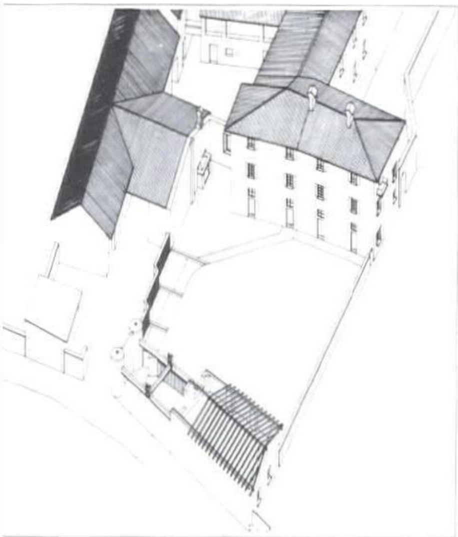
make one of the earliest post-war reinterpretations of the Italian Lombardy vernacular in the Casa Quaglia built at Sutrio in 1956. Throughout the Fifties, Vallé dedicated himself to the evolution of an industrial format for the Lombardy region. This development reached its zenith in his Zanussi Rex factory built at Pordenone in 1961. Aside from this, he was to extend his capacity for a more richly-textured and inflected regional expression in his thermal baths, built at Arta in 1964 and in his project for the Udine Civic Theatre submitted one year before. Regionalism, as we have seen, is often not so much a collective effort as it is the output of a talented individual working with commitment towards some sort of rooted expression.

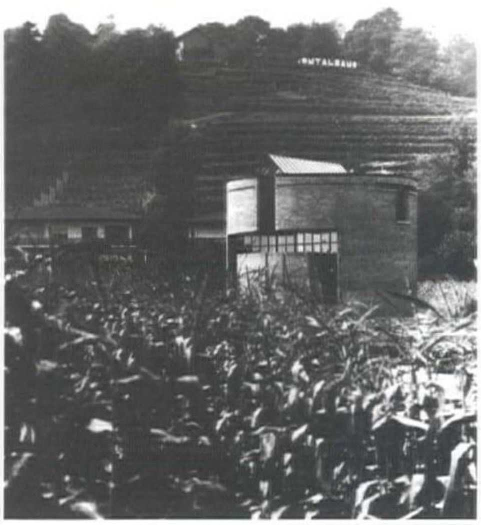
Apart from the Western United States, Regionalism first became manifest in the post-war world in the vestigial city-states of the European continent. A number of regional architects seem to have had their origins in this middle ground in the first decade after the war. Among those of the pre-war generation who have somehow remained committed to this regional inflection one may count such architects as Ernst Gisel in Zurich, Jørn Utzon in Copenhagen, Vittorio Gregotti in Milan, Gino Vallé in Udine, Peter Celsing in Stockholm, Mathias Ungers in Cologne, Sverre Fehn in Oslo, Aris Konstantinides in Athens, Ludwig Leo in Berlin, and the late Carlo Scarpa in Venice. Louis Kahn may also be considered to be a regionally-oriented architect inasmuch as he was to remain committed to Philadelphia, both as myth and reality, throughout his life. It is symptomatic of his concern for preserving the urban qualities of downtown Philadelphia that he should show the central city area as a citadel; as a sector walled in like Carcassonne by an autoroute instead of a bastion and studded on its perimeter with cylindrical parking silos instead of castellated towers.

Switzerland, with its intricate linguistic and cultural boundaries and its tradition of cosmopolitanism, has always displayed strong regionalistic tendencies; ones which have often assumed a critical nature. The subtle cantonal combination of admission and exclusion has always favored the cultivation of extremely dense forms of expression in quite limited areas, and yet, while the cantonal system serves to sustain local culture, the Helvetic Federation facilitates the penetration and assimilation of foreign ideas. Dolf Schnebli's Corbusian, vaulted villa at Campione d'Italia on the Italo-Swiss frontier (1960) may be seen as initiating the resistance Swiss regional culture to the rule of inte national Miesianism. This resistance found its echo almost immediately in other parts of Switzerland, in Aurelio Galfetti's equally Corbusian Rotalini House, in Bellinzona and in the Atelier 5 version of the Corbusian *bêton brut* mar ner, as this appeared in private houses at Motier and Flamatt and in Siedlung Halen, built outside Bern in 1960. Today' Ticinese Regionalism has its ultimate origins not only in this pioneering work of Schnebli, Galfetti and Atelier 5, but also in the Neo-Wrightian work of Tita Carloni.

The strength of provincial culture surely resides in its capacity to condense the a tistic potential of the region while reinterpreting cultural influences coming from the outside. The work of Mario Bot is typical in this respect, with its concentration on issues which relate directl to a specific place and with its adaptatio of various Rationalist methods drawn from the outside. Apprenticed to Carloni and later educated under Carlo Scarpa ir Venice, Botta was fortunate enough to work, however briefly, for both Kahn anc Le Corbusier during the short time that they each projected monuments for that city. Evidently influenced by these men, Botta has since appropriated the methodology of the Italian Neo-Rationalists a his own, while simultaneously retaining, through his apprenticeship with Scarpa, an uncanny capacity for the craft enrichment of both form and space. Perhaps th most striking example of this last occurs in his application of *intonocare lucido* (polished plaster) to the fireplace surrounds of a converted farmhouse that was built to his designs at Ligrignano in 1979.

Two other primary traits in Botta's work may be seen as testifying to his Regiona ism; on the one hand, his constant preoc cupation with what he terms *building the site*, and, on the other, his deep convictio that the loss of the historical city can onl now be compensated for on a fragmentary basis. His largest work to date, namely his school at Morbio Inferiore, asserts itself as a micro-urban realm; as a cultural compensation for the evident los of urbanity in Chiasso, the nearest large city. Primary references to the culture of the Ticino landscape are also sometimes evoked by Botta at a typical level. An ex-





15
Mario Botta, Farmhouse at Ligrignano, 1978-79.

16
Mario Botta, Casa Rotunda, Stabio, 1981.

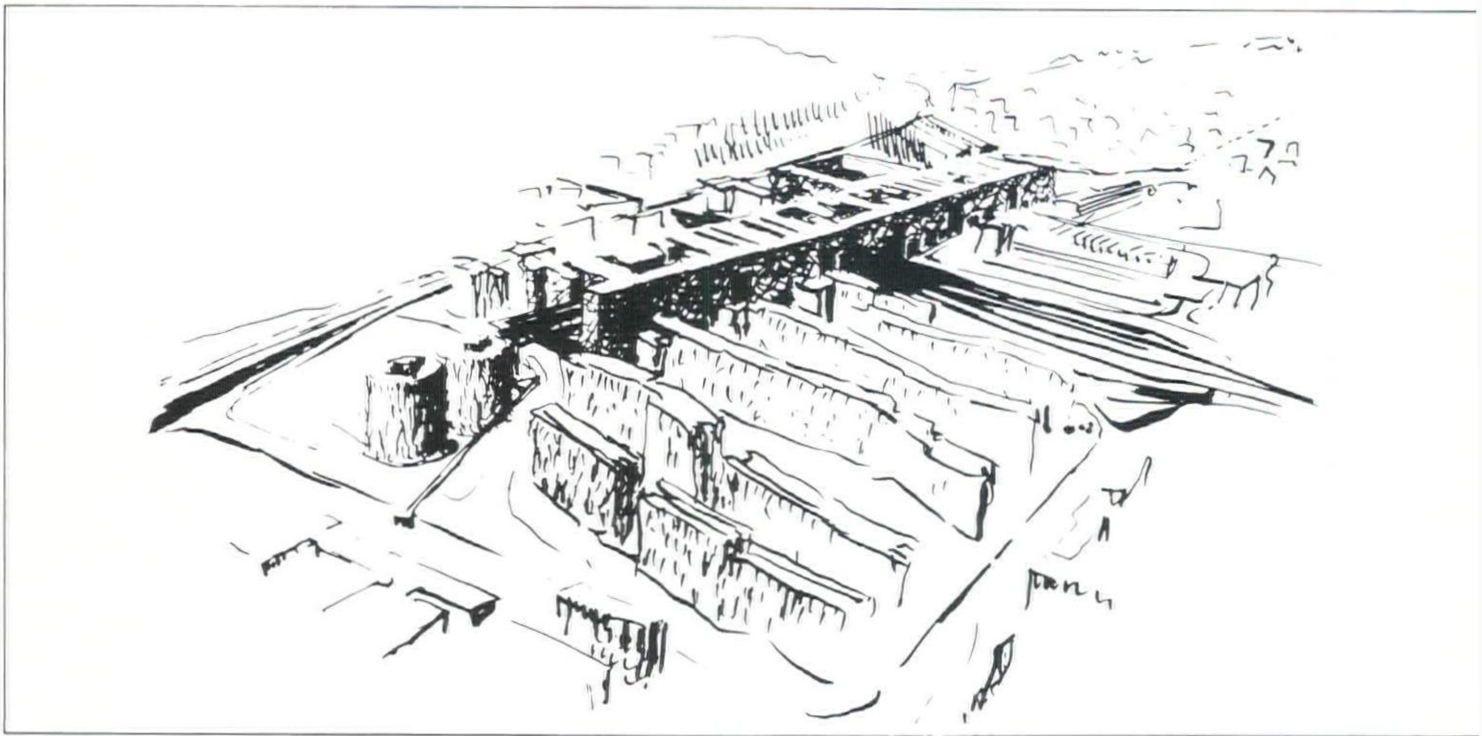
orio Gregotti, *L'Architettura come territoria.* ta took his notion of building the site from the sis that Gregotti advanced in this book.

ample of this would be the house at Riva San Vitale, which refers obliquely to the traditional country summer house or *rocoli* which was once endemic to the region.

Aside from this specific reference, Botta's houses often appear as markers in the landscape, either as points or as boundaries. The house in Ligornetto, for example, establishes the frontier where the village ends and the agrarian system begins. The visual acoustics of its plan stem from the gun-sight aperture of the house which turns away from the fields and towards the village. Botta's houses are invariably treated in this way, as bunker-belvederes, where the fenestration opens towards selected views in the landscape, thereby screening out, with stoic pathos, the rapacious suburban development that has taken place in the Ticino region over the past twenty years. Finally, his houses are never layered into the contours of a given site, but rather "build the site"[11] by declaring themselves as primary forms, set against the topography and the sky. Their surprising capacity to harmonize with the still partially agricultural nature of the region stems directly from their *analogical* form and finish; that is to say, from the fair-faced, concrete block of their structure and from the silo or barn-like shell forms in which they are housed, these last alluding to the traditional agricultural structures from which the form derives.

Despite this demonstration of a convincing, modern, domestic sensibility, the most critical aspect of Botta's achievement does not reside in his houses, but rather in his public projects; in particular in the two large-scale proposals which he designed in collaborative with Luigi Snozzi. Both of these are "viaduct" buildings and as such are certainly influenced to some degree by Kahn's Venice Congress Hall project of 1968 and by Rossi's first sketches for Galaratese of 1970. The first of these projects, their *Centro Direzionale di Perugia* of 1971, is projected as a "city within a city" and the wider implications of this design clearly stem from its potential applicability to many Megalopolitan situations throughout the world. Had it been realized, this regional center, built as an arcaded galleria, would have been capable of signaling its presence to the urban region without compromising the historic city or fusing with the chaos of the surrounding suburban development. A comparable clarity and appropriateness was obtained in their Zurich Station proposal of 1978. The advantages of the urban strategy adopted in this instance are so remarkable as to merit brief enumeration. This multileveled bridge structure would have not only provided four separate concourse levels to accommodate shops, offices, restaurants, etc., but would have also constituted a new head building at the end of the covered platforms. At the same time it would have emphasized an indistinct urban boundary without compromising the historic profile of the existing terminus.

In the case of the Ticino, one can lay claim to the actual presence of a Regionalist School in the sense that, after the late 1950s, this area produced a body of remarkable buildings, many of which were collectively achieved. This much is clear, not only from the diversity of Botta's own collaborators but also from



17

17
Mario Botta and Luigi Snozzi, New Administrative Center at Perugia, competition entry, 1971, sketch.

associations which took place without his participation. Once again credit is due to the older generation such as Galfetti, Carloni, and Schnebli, who frequently collaborated with younger architects. There is no room here to list all the architects involved, but some idea of the scope of this endeavor may be obtained from the fact that the Ticinese "school" comprised well over twenty architects who were variously to build some forty buildings of note between 1960 and 1975.

It is hardly surprising that Tadao Ando, who is one of the most regionally conscious architects in Japan should be based in Osaka rather than Tokyo and that his theoretical writings should formulate more clearly than any other architect of his generation a set of precepts which come close to the idea of Critical Regionalism. This is most evident in the tension that he perceives as obtaining between the process of universal modernization and the idiosyncrasy of rooted culture. Thus we find him writing in an essay entitled, "From Self-Enclosed Modern Architecture toward Universality,"

> Born and bred in Japan, I do my architectural work here. And I suppose it would be possible to say that the method I have selected is to apply the vocabulary and techniques developed by an open, universalist Modernism in an enclosed realm of individual lifestyles and regional di ferentiation. But it seems difficult t me to attempt to express the sensibilities, customs, aesthetic awareness, distinctive culture, and social traditions of a given race by means of an open, internationalist vocabulary of Modernism . . .[12]

As Ando's argument unfolds we realize that for him an *Enclosed Modern Archite ture* has two meanings. On the one han he means quite literally the creation of e claves or, to be specific, court-houses by virtue of which man is able to recover and sustain some vestige of that time-honoured triad,– *man, nature, culture*– against the obliterating onslaught of Megalopolitan development. Thus Ando writes:

> After World War II, when Japan launched on a course of rapid economic growth, the people's value criteria changed. The old fundamen tally feudal family system collapse Such social alterations as concentr tion of information and places of work in cities led to overpopulation of agricultural and fishing villages and towns (as was probably true in other parts of the world as well); overly dense urban and suburban populations made it impossible to preserve a feature that was former most characteristic of Japanese res

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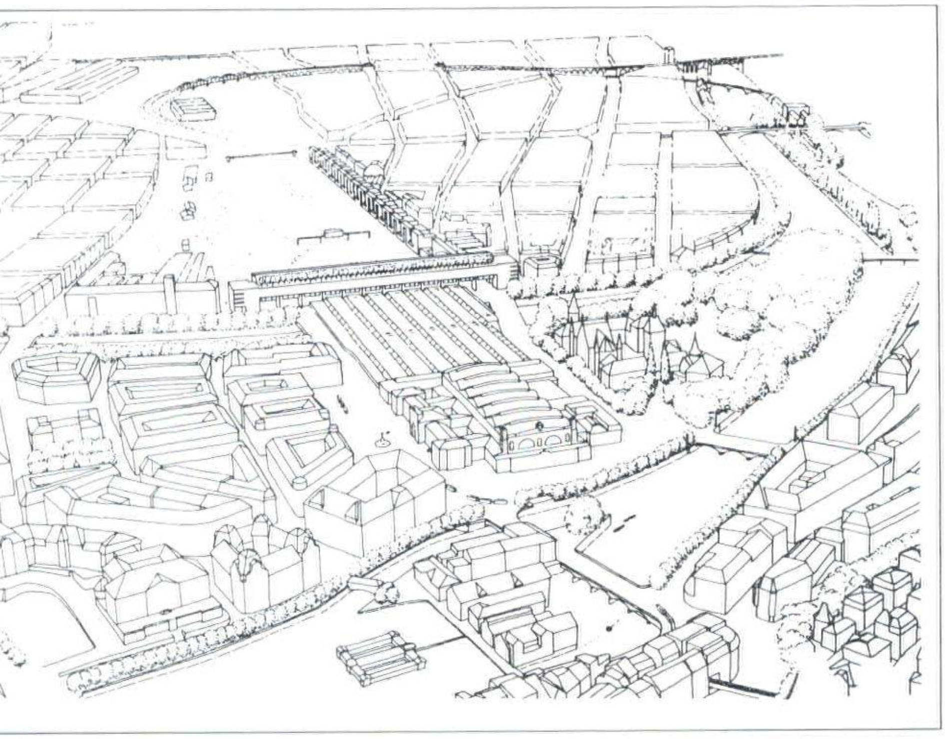
[12] Tadao Andô, "From Self-Enclosed Modern Architecture Toward Universality", *The Japan Architect*, no. 301, May 1982, pp. 8-12.



ao Andô, *The Japan Architect*.

ao Andô, *The Japan Architect*.

ao Andô, *The Japan Architect*.

ao Andô, *The Japan Architect*.

ta and Snozzi, Zurich
lway Station, competition
ry, 1978.

> dential architecture; intimate connection with nature and openness to the natural world. What I refer to as an Enclosed Modern Architecture is a restoration of the Unity between house and nature that Japanese houses have lost in the process of modernization.[13]

In his small courtyard block houses, often set within dense urban fabric, Ando employs concrete in such a way as to stress the taut homogeneity of its surface rather than its weight, since for him it "is the most suitable material for realizing surfaces created by rays of sunlight . . . (where) . . . walls become abstract, are negated, and approach the ultimate limit of space. Their actuality is lost, and only the space they enclose gives a sense of really existing."[14]

While the cardinal importance of light is present in theoretical writings of Louis Kahn and Le Corbusier, Ando sees the paradox of spatial limpidity emerging out of light as being peculiarly pertinent to the Japanese character and with this he makes explicit the second and broader meaning which he attributes to the concept of a self-enclosed modernity. He writes:

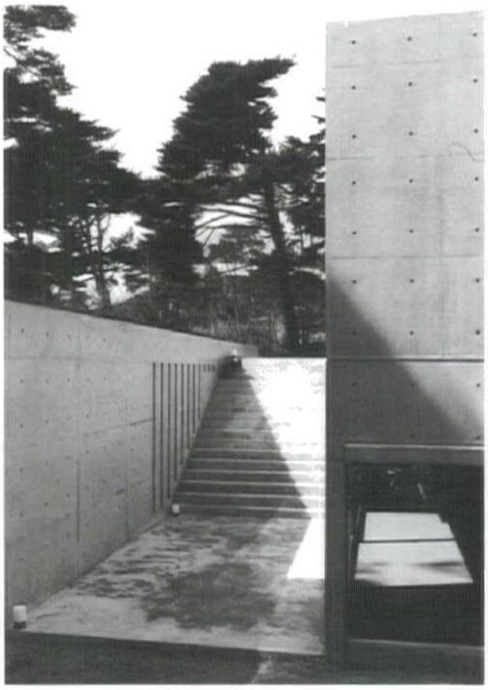
> Spaces of this kind are overlooked in utilitarian affairs of everyday living and rarely make themselves known. Still they are capable of stimulating recollection of their own innermost forms and stimulating new discoveries. This is the aim of what I call closed modern architecture. Architecture of this kind is likely to alter with the region in which it sends out roots and to grow in various distinctive individual ways, still, though closed, I feel convinced that as a methodology it is open in the direction of universality.[15]

What Ando has in mind is the development of a trans-optical architecture where the richness of the work lies beyond the initial perception of its geometric order. The tactile value of the tectonic components are crucial to this changing spatial revelation, for as he was to write of his Koshino Residence in 1981:

> Light changes expressions with time. I believe that the architectural materials do not end with wood and concrete that have tangible forms but go beyond to include light and wind which appeal to our senses. . . . Detail exists as the most important element in expressing identity. . . . Thus to me, the detail is an element which achieves the physical composition of architecture, but at the same time, it is a generator of an image of architecture.[16]

That this opposition between universal civilization and autochthonous culture can have strong political connotations has been remarked on by Alex Tzonis in his article on the work of the Greek architects Dimitris and Susana Antonakakis, entitled, "The Grid and Pathway," in which he demonstrates the ambiguous role played by the universality of the *Schinkelschuler* in the founding of the Greek state. Thus we find Tzonis writing:

> In Greece, historicist regionalism in its neo-classical version had already met with opposition before the arrival of the Welfare State and of modern architecture. It is due to a very peculiar crisis which explodes around the end of the nineteenth century. Historicist regionalism here had grown not only out of a war of liberation; it had emerged out of interests to develop an urban elite set apart from the peasant world and its rural "backwardness" and to create a dominance of town over country: hence the special appeal of histor-



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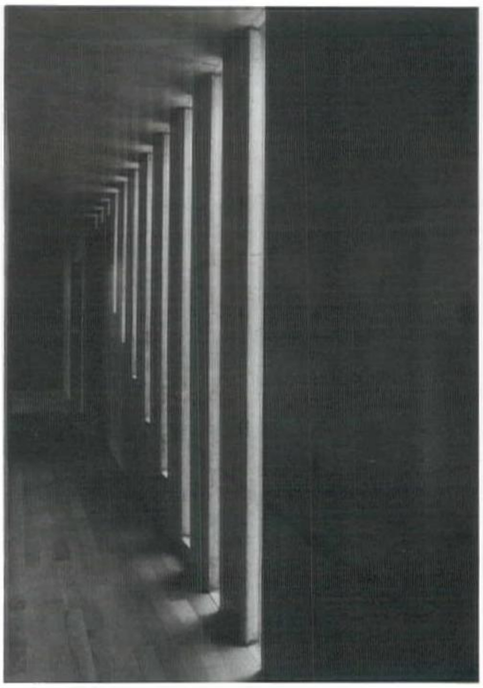

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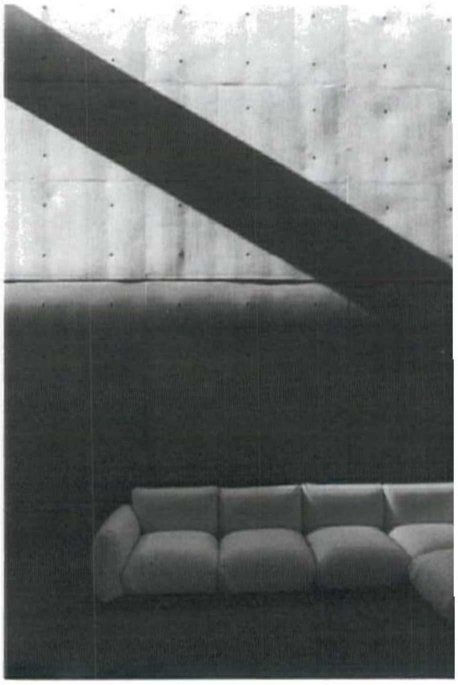

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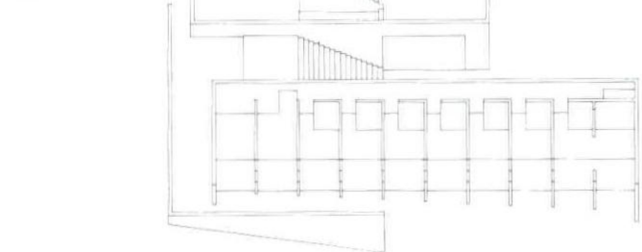
19
Tadao Andô, Koshino Residence, 1981, plan projection.

20
Koshino Residence, courtyard.

21
Koshino Residence, interior.

22
Koshino Residence, living room.



19

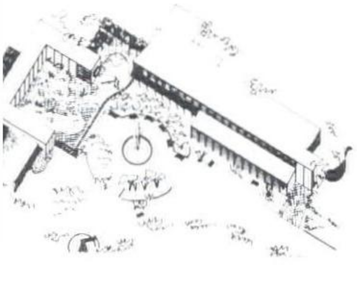
> icist regionalism, based on the book rather than experience, with its monumentality recalling another distant and forlorn elite. Historical regionalism had united people but it had also divided them.[17]

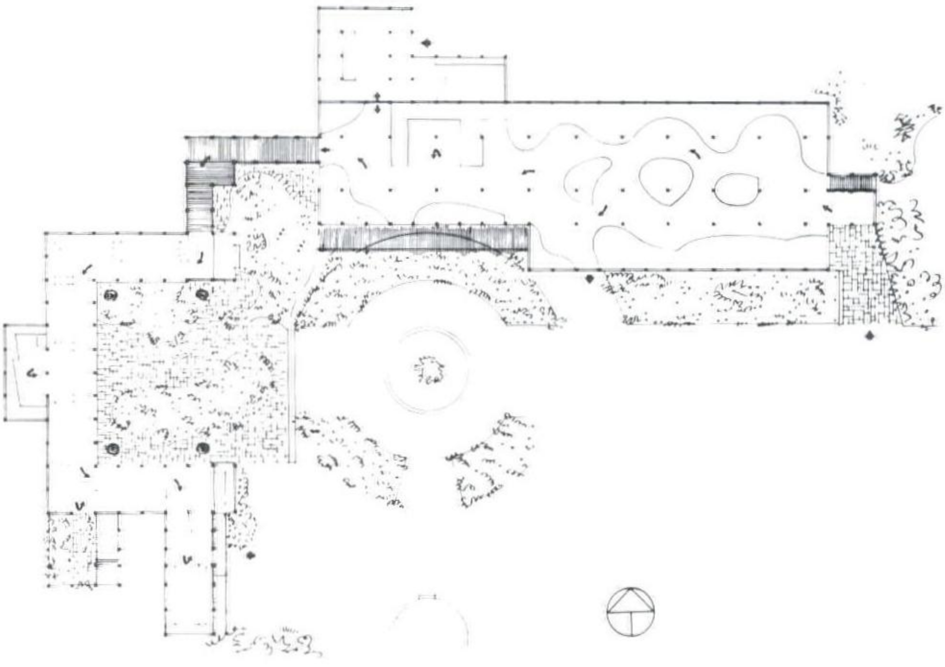
While the various reactions which followed the nineteenth-century triumph of the Greek Nationalist, Neo-classical style varied from vernacular historicism in the Twenties to a more thorough-going modernist approach which, immediately before and after the Second World War, first proclaimed modernity as an ideal and then directly attempted to participate in the modernization of Greek society.

As Tzonis points out, critical regionalism only began in Greece with the thirties projects of Dimitri Pikionis and Aris Konstantinidis, above all in the latter's Eleusis house of 1938 and his garden exhibition built in Kifissia in 1940. It then manifested itself with great force in the pedestrian zone that Dimitri Pikionis designed for the Philopappus Hill, in 1957, on a site immediately adjacent to the Acropolis in Athens. In this work, as Tzonis points out:

> Pikionis proceeds to make a work of architecture free from technological exhibitionism and compositional conceit (so typical of the mainstream of architecture of the 1950s) a stark naked object almost dematerialized, an ordering of "places made for the occasion," unfolding around the hill for solitary contemplation, for intimate discussion, for a small gathering, for a vast assembly.
>
> To weave this extraordinary braid of niches and passages and situations, Pikionis identifies appropriate components from the lived-in spaces of folk architecture, but in this project the link with the regional is not made out of tender emotion. In a completely different attitude, these envelopes of concrete events are studied with a cold empirical method, as if documented by an archaeologist. Neither is their selection and their positioning carried out to stir easy superficial emotion. They are platforms to be used in an everyday sense but to supply that which, in the context of contemporary architecture, everyday life does not. The investigation of the local is the condition for reaching the concrete and the real, and for rehumanizing architecture.[18]

Unlike Pikionis, Konstantinidis, as his career unfolded, moved closer to the rationality of the universal grid and it is this affinity that now leads Tzonis to regard the work of Antonakakis as lying somewhere between the autochthonous pathway of Pikionis and universal grid of





itri Pikionis and Aris
stantinides, Garden
ibition, Kifissia, 1940, plan
axonometric.

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ander Tzonis and Liane Lefaivre, "The Grid and ?athway: An Introduction to the Work of Dimitris Susana Antonakakis, with Prolegomena to a ɔry of the Culture of Modern Greek Architecture", *ıitecture in Greece*, no. 15, 1981, pp. 164–78.

ıis and Lefaivre, *Architecture in Greece*.

Konstantinidis. Are we justified in seeing this dualism as yet a further manifestation of the interaction between culture and civilization, and if so, what are the general consequences? Tzonis writes of Antonakakis' work and of critical regionalism in general that: ". . . (it) is a bridge over which any humanistic architecture of the future must pass, even if the path may lead to a completely different direction."[19]

Perhaps the one work of Antonakakis which expresses this conjunction of grid and the pathway more succinctly than any other is the Benakis Street apartment building completed to their designs in Athens in 1975; a building wherein a concept of labyrinthine path-movement, drawn from the islands of Hydra, is woven into the structural fabric of a rationalist grid–the ABA concrete frame which sustains the form of the building.

If any central principle of critical regionalism can be isolated, then it is surely a commitment to *place* rather than *space*, or, in Heideggerian terminology, to the nearness of *raum*, rather than the distance of *spatium*. This stress on place may also be construed as affording the political *space of public appearance* as formulated by Hannah Arendt. Such a conjunction between the *cultural* and the *political* is difficult to achieve in late capitalist society. Among the occasions in the last decade on which it has appeared on more general terms, recognition shoul be given to the development of Bologn in the Seventies. In this instance, an appraisal was made of the fundamental morphology and typology of the city fa ric, and *socialist* legislation was introduced to maintain this fabric in both *ol* and *new* development. The conditions der which such a plan is feasible must necessity be restricted to those survivin traditional cities which have remained subject to responsible forms of politica control. Where these *cultural* and *politi* conditions are absent, the formulation a creative cultural strategy becomes m difficult. The universal Megalopolis is p tently antipathetic to a dense differenti tion of culture. It intends, in fact, the reduction of the environment to nothin but commodity. As an abacus of develo ment, it consists of little more than a h lucinatory landscape in which nature fuses into instrument and vice versa. C cal Regionalism would seem to offer th sole possibility of resisting the rapacity this tendency. Its salient cultural precep is 'place' creation; the general model t be employed in all future development the *enclave*–that is to say, the bounded fragment against which the ceaseless inundation of a place-less, alienating c sumerism will find itself momentarily checked.

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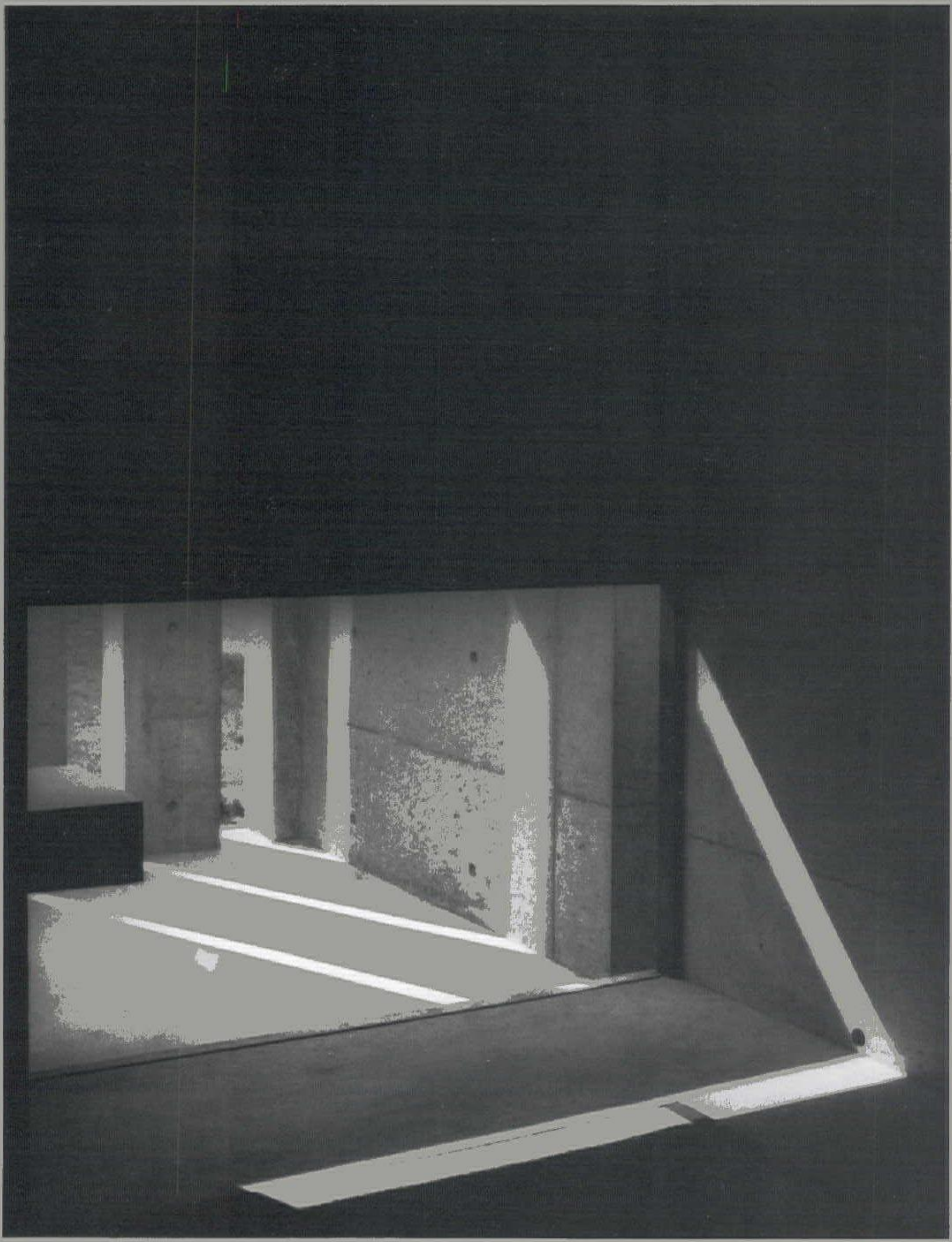
[19] Tzonis and Lefaivre, *Architecture in Greece*.

Tadao Andô: Heir to a Tradition



dao Andô, Tea Ceremony
om, addition to Sôseikan,
31, interior.

Perspecta: The Yale Architectural Journal, Volume 20 0079-0958/83/20163-018$3.00/0

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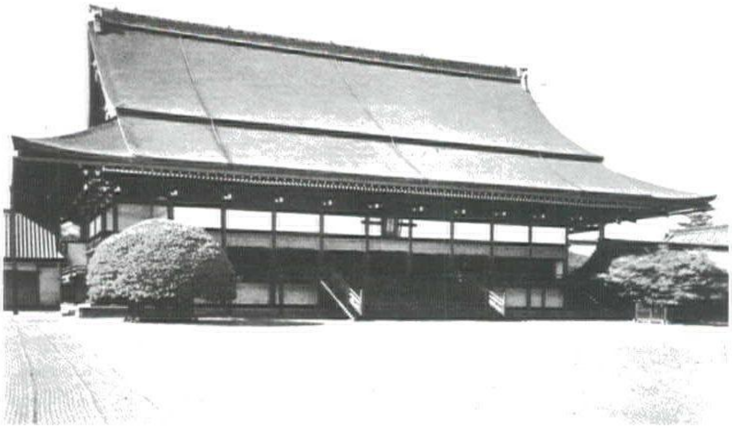
1
Ise Shrine, Naigû, (Mie Prefecture).

2
Izumo Shrine (Shimane Prefecture).

3
The Shishinden, Imperial Palace, Kyoto, rebuilt in 18

4
Nijô Castle, Ninomaru Pala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4

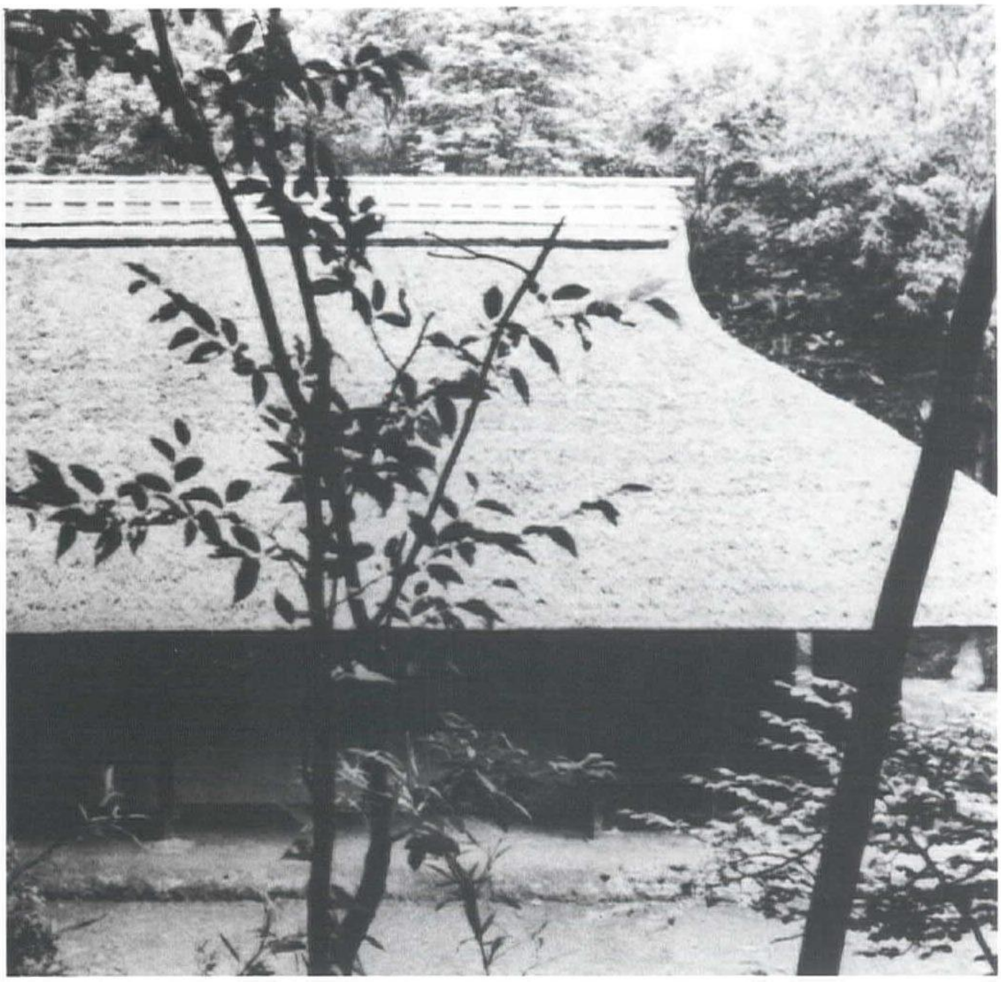
His concrete surfaces have textures as smooth and delicate as fine craftwork. His compositions are spare and clean. By these means, Tadao Andô produces spaces symbolizing the relation between human beings and physical objects. His interpretation of this relation is imbued with distinctively Japanese emotions derived from the Japanese cultural tradition. This may best be illustrated by a comparison of his work with that of Sen no Rikyû (1522–91), one of the greatest of all tea ceremony masters, and an important architect of tea ceremony pavilions.

The Tea Ceremony

The custom of drinking tea was introduced to Japan by Zen priests in the thirteenth century, and gained wide popularity among members of the ruling warrior class, the court aristocrats and later the rich merchants. As time went by, the preparation and imbibing of the beverage were worked into an elaborately formalized system demanding a certain number of utensils and architectural appurtenances. Several tea masters concentrated on codifying the hospitality associated with tea, and the result was the *Way of Tea*, or the tea ceremony.

Rikyû introduced fresh vigor into the tea ceremony by designing rooms and small pavilions for it that departed from forme architectural traditions. In contrast to all of the major architectural styles of the past–the Shinto shrines represented by the splendid buildings at Ise and Izumo, the aristocratic residences of the *shinde zukuri* style, the warrior homes of the *shoin* style, and the temple buildings (fi ures 1–4)–he gave refined expression to the aesthetic value he found in the humble houses of the common people (figure 5).

Rikyû was striving to create spaces that, though small, could bring peace and calm, even for a short while, to member of the warrior class plagued by strife an conflict. In the rooms he designed, gues



nhouse in Towada,
teenth century.

ould become so absorbed in the affairs the tea ceremony that they forgot the oubles of daily life. The methods he sed to produce the kind of microcosm he anted were enclosure and the adapta- on of vernacular elements from folk wellings. Through Rikyû's tea ceremony uildings (built in a style that came to be lled *so-an*, or grass-thatched retreat), ese elements became fashionable with e wealthy. Thus, the domestic architec- ral traditions of the common people ex- ted an influence on the design of the omes of the aristocracy and the military ling class.

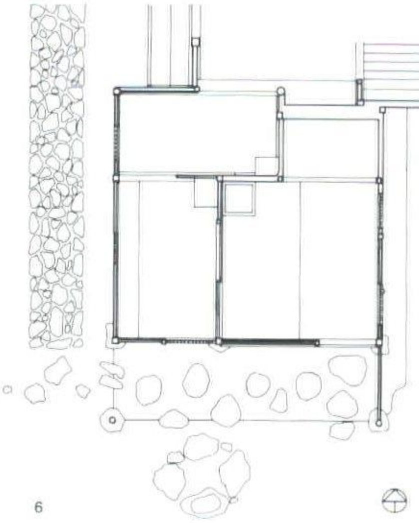
An outcome of the nature of the tea ceremony pavilion, was the evolution of it as an element of social criticism. As I have said, warriors hoped to find relief from the tumult of their everyday lives in the microcosm of the teahouse. In other words, by fleeing to its peace and seclusion, they were, at least tacitly, criticizing the existing social condition. The same can be said of the aristocracy, who found in the tea ceremony a respite from a world where, in spite of their ancient nobility, they were subordinate to military rulers who were often of much less dignified lineage than they. In short, examples of tea ceremony architecture can be interpreted as statements of criticism of the status quo.

The spirit of the tea ceremony and of everything associated with it as it was developed by and after Sen no Rikyû, is often expressed by the Japanese word *wabi*, which means a deliberate striving for simplicity. But the word carries a connotation of dissatisfaction and is used to point out the failing of things or persons deemed worthy of criticism. For instance, the refined, quiet, calm *wabi* style is sometimes mentioned as an antonym for the gaudy, ostentatious taste associated with the great military leader Toyotomi Hideyoshi (who was a patron of Rikyû). The idea of *wabi* can stand for dissatisfaction with authority.

6
Sen no Rikyû, Myôki-an, Tai-an, 1653, plan.

7
Myôki-an, Tai-an, east wall, interior.

8
Tadao Andô, Koshino Residence, 1981.



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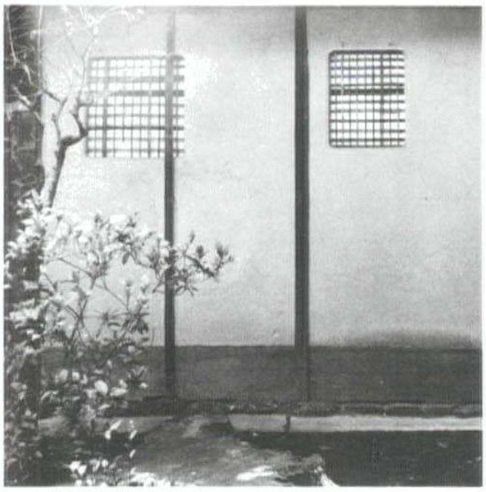

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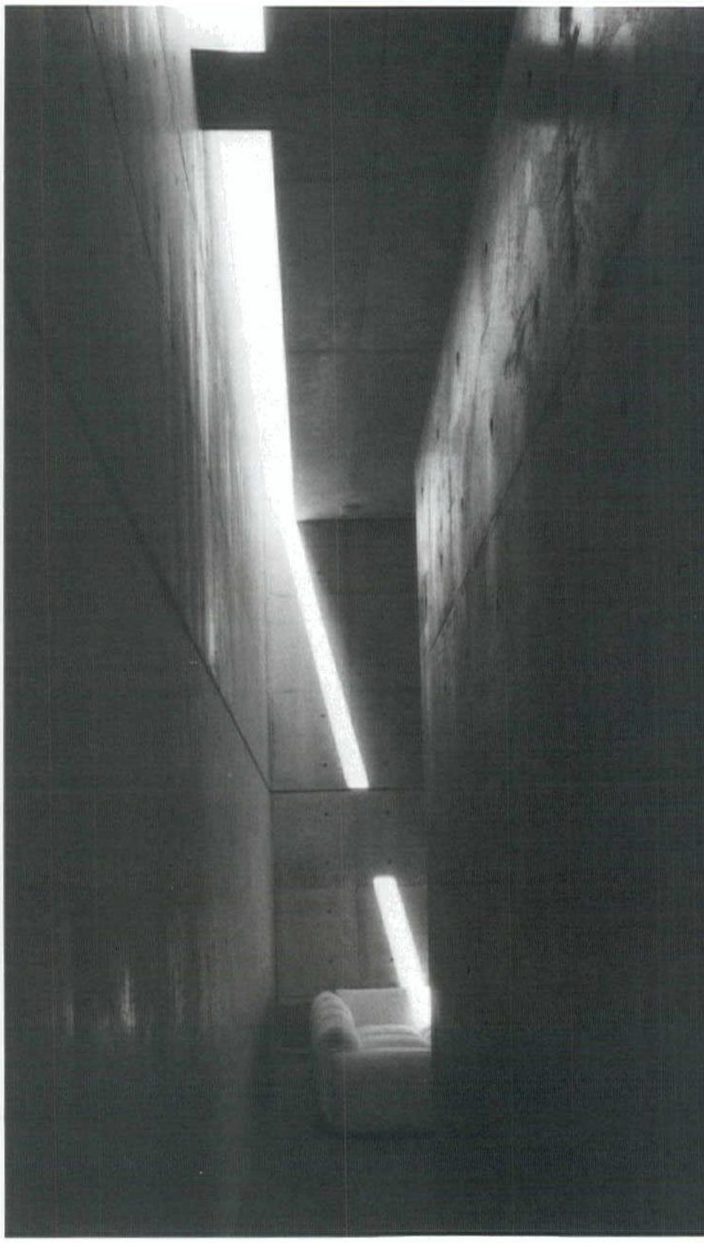


8

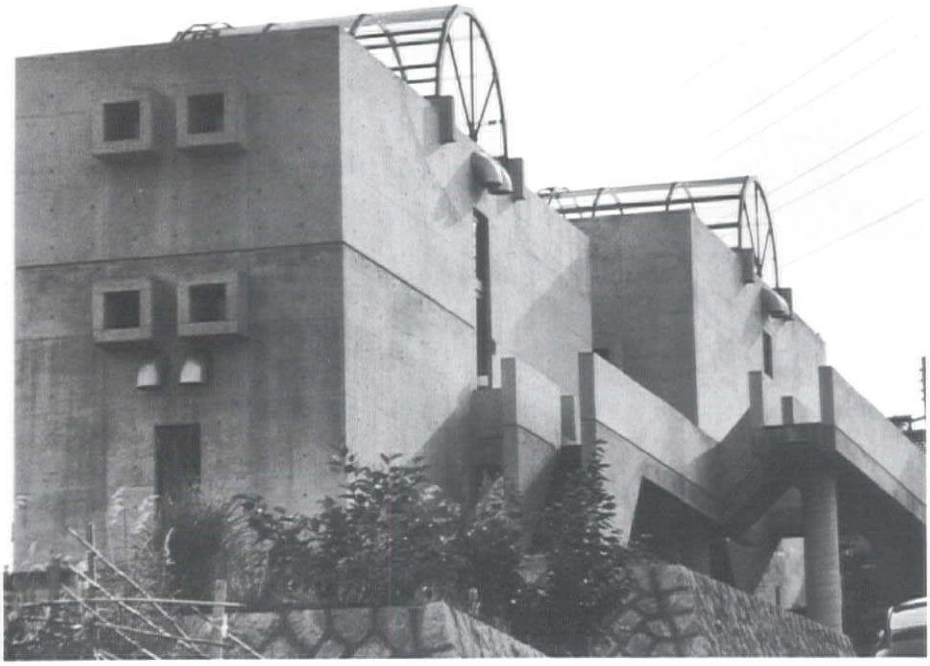
In addition to its antiestablishment qualities, the tea ceremony and its architecture are the completely individual results of the art and thought of one person. Conceived and created by individual human beings exerting their utmost physically and spiritually, tea ceremony rooms are places for individual human discipline and refinement and never symbols of social or religious status.

Andô's Inheritance

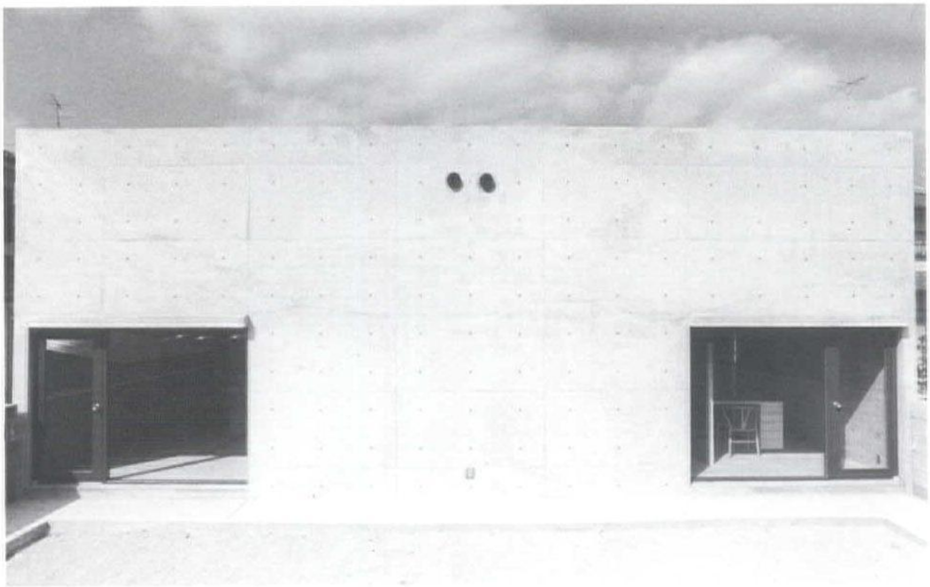
Although there is no resemblance in terms of style or actual forms, there is much in common between the tea ceremony designs of Sen no Rikyû and the residential designs of Tadao Andô in the nature of their spaces. Both are enclosed and concentrated. Both have a deliberately created simple appearance. Both are calm, quiet, and pure. Both are gentle, austere, and clear in mood. Both are dimly lit but have light within their darkness. Both give a feeling of expansiveness in spite of their small size. Though set in cities, both are rural in nature. Though artificial, both are natural. They are neither commonplace nor monumental.

The most decisive of the many ideas an devices Rikyû used to cut the tea ceremony room off from the noisy world an make of it a calm, quiet, inner-reflective microcosm was spatial enclosure. For instance, in the tea ceremony room called the Tai-an of the Myôki-an, in the outski of Kyoto, Rikyû created a space that, though only two tatami mats in area, is broad world of spiritual abundance (figure 6). In rooms of this kind where no o ever feels cramped; the smaller the space, the more intensely fulfilled it is. Andô employs the same spatial concep In addition, he shares with Rikyû an interest in manipulating light, in overlapping spaces, and in introducing the world of nature.

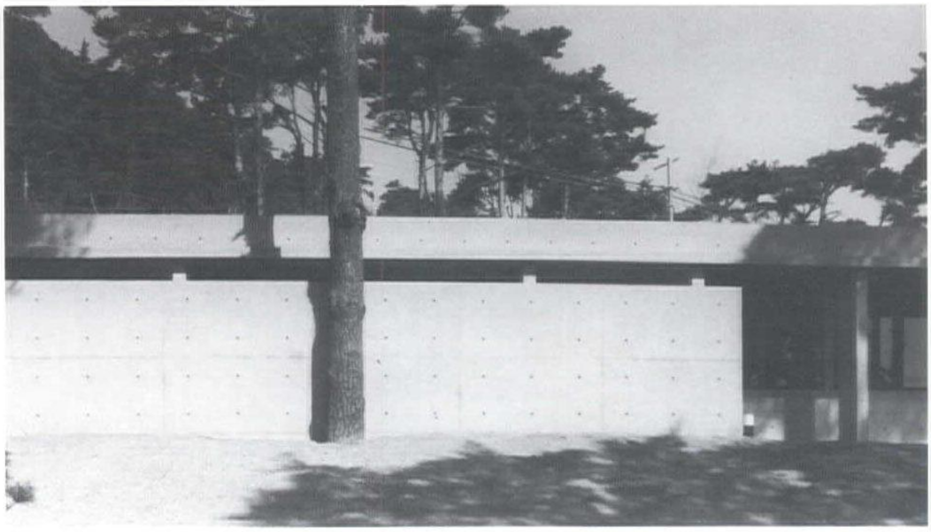
ao Andô, Yamaguchi
dence, or Sôseikan, 1975,
h elevation.



ao Andô, Ueda Residence,
9, south elevation

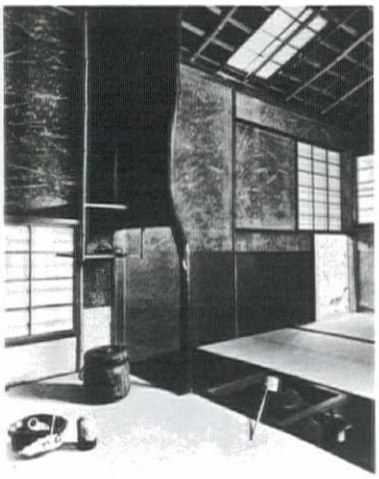


shino Residence, south
evation.



12
Sa-an Tea Room, Gyorky-in Temple, tsukiage-mado.

13
Koshino Residence, skylight in living room.



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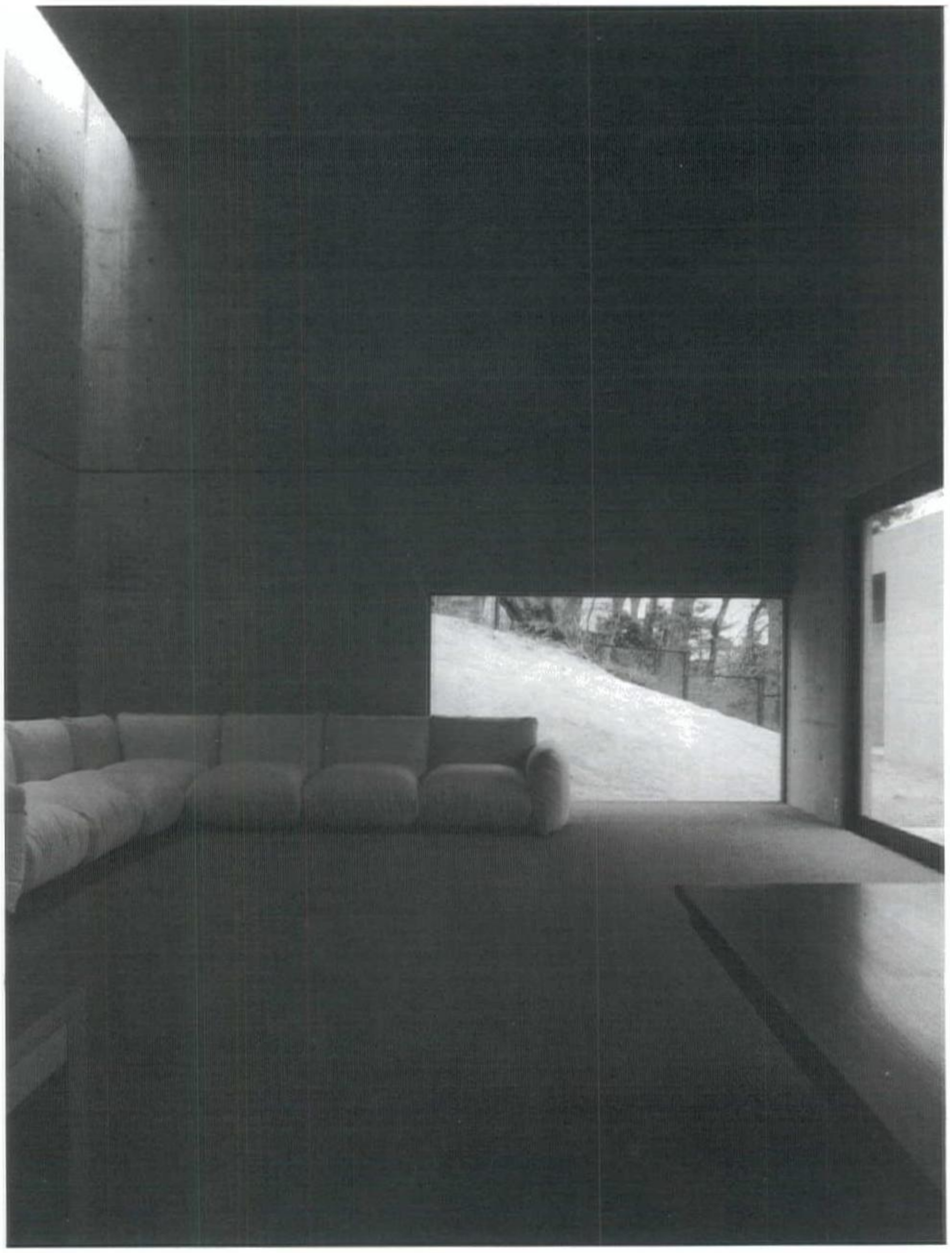


13

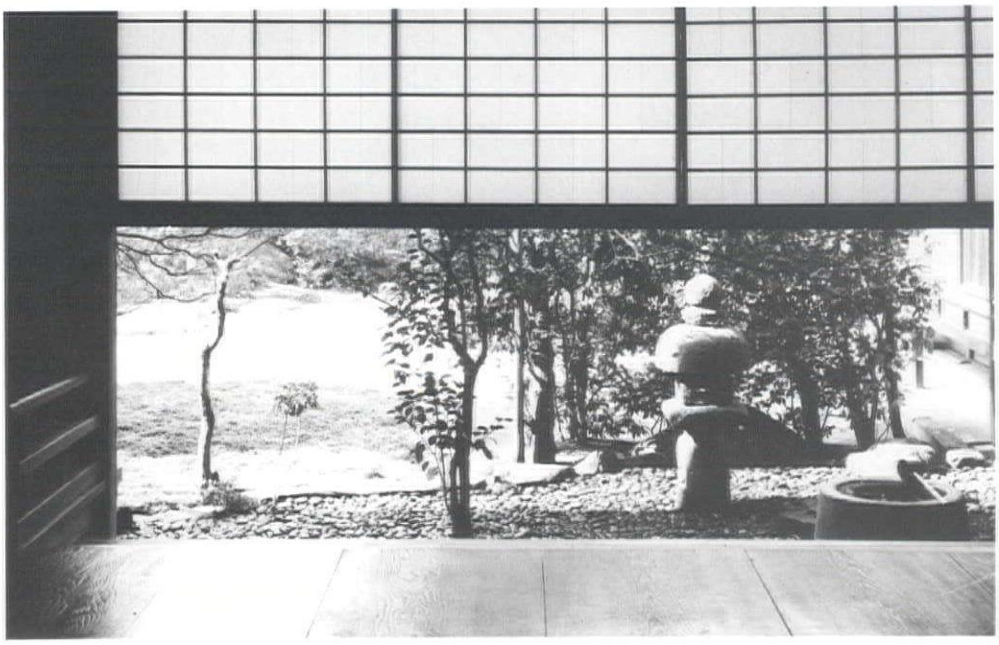
Light

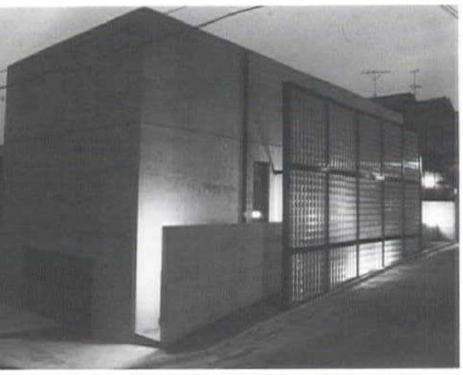
For enclosed spaces, natural lighting, and therefore the placement and sizes of openings in the walls delineating the spaces, deserves maximum care (figure 7). Since the kinds of spaces I am discussing are typified by light within darkness, they are to be calm and settled and their dimness is not to generate a sense of smallness, rendering the question of openings all the more important. If the enclosed world is a microcosm, the shaft of sunlight penetrating it is a ray of hope rendered vivid by the enclosure and the surrounding darkness (figure 8).

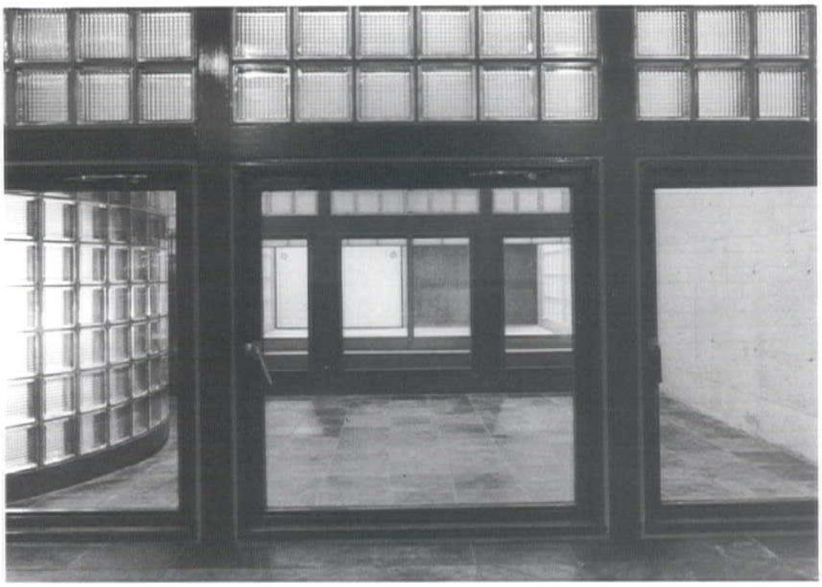
The location of openings has a determining effect on the mood of a space. In most traditional Japanese residential architecture, the major openings are on the south, where they receive full sun in winter. For their purposes, however, both Rikyû and Andô avoid southern openings because the bright illumination pouring through them has an unsettling effect on the space. For instance, the south wall at the Tai-an has no windows. Similarly, in keeping with a desire for refracting instead of directly admitting light, in some of Andô's houses, such as the Yamaguchi residence or Sôseikan (1975), the Ueda residence (1979), and the Koshino residence (1981), there are no southern windows (figures 9–11).

Other natural illumination devices of
which Andô is fond can be traced, if no
directly to Rikyû, at least to his influenc
and to other tea masters who built on t
foundation he laid. Though there is no
ample of it at the Tai-an, the small skyli
window called the *tsukiage-mado* founc
other tea ceremony pavilions, is though
to have been originated by Rikyû (figure
12). It may be propped open from withi
and admits both light and air without al
lowing the interior to be otherwise grea
influenced by the exterior environment.
Andô's predeliction for skylights is trace
able to a desire similar to the one that
inspired the invention of this kind of wi
dow (figure 13).

14







16

aitoku-ji, Kohô-an Bôsen,
641.

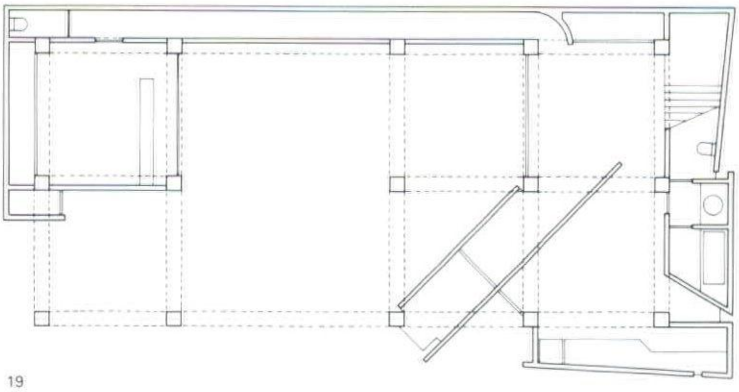
dao Andô, Horiuchi
esidence, 1979, free-standing
ass block wall.

dao Andô, Ishihara
esidence, 1978, view through
terior court.

nother notable tea ceremony master obori Enshû (1579–1647) employed a ghting device resembling those that ndô uses. At a tea ceremony room alled the Kohô-an Bôsen, at the Kyoto emple Daitoku-ji, Enshû devised an unsual set of shoji that are completely pen in the bottom zone to permit views f the garden and admit reflected light, ut are filled with translucent white paper n the top to admit only diffused light (figre 14). In many of his houses, Andô uses valls of glass blocks to admit only difused light into interior spaces. At the oriuchi residence (1979), he uses a freetanding glass block wall to define relaons between interior and exterior (figure 5). At the Ishihara residence (1978), his composition of glass block and transparent glass closely resembles that of the opening at the Kohô-an (figure 16). In saying this, however, I do not intend to give the impression that Andô is quoting traditional vocabulary. It is only that his thoughts on the treatment of light have led to a conclusion similar to the traditional one.

Overlapping Spaces

In an enclosed world, shut off from the exterior environment, spaces which overlap and figuratively fold in on each other add depth and richness to the composition and stimulate excitement and expectation in the person experiencing the space. The approach is one place where such an effect can be achieved. For example, the approach to a tea ceremony pavilion often leads through a garden space called a *rôji*. In the course of traversing this garden, the visitor must pass through several gates, usually delicately and exquisitely designed, before finally reaching the pavilion where the tea ceremony will be performed (figure 17). Since the site is very small, a series of gates was impossible at the Tai-an; but similar anticipation and excitement are generated by detours deliberately included in the steppingstone walkway (figure 18). The same kind



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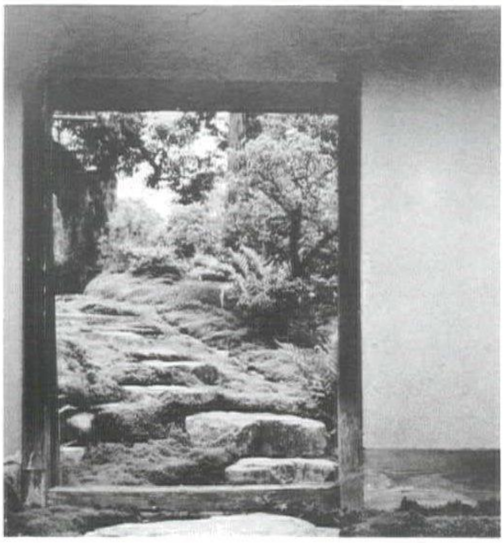

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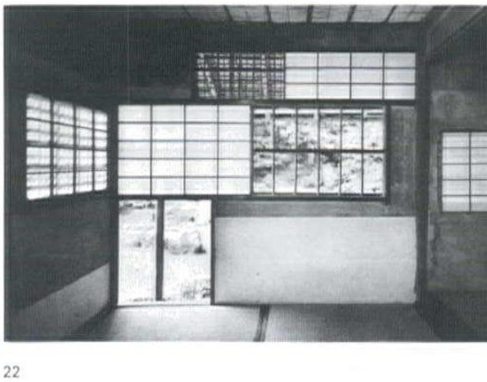


22

ura Palace, gate in rôji

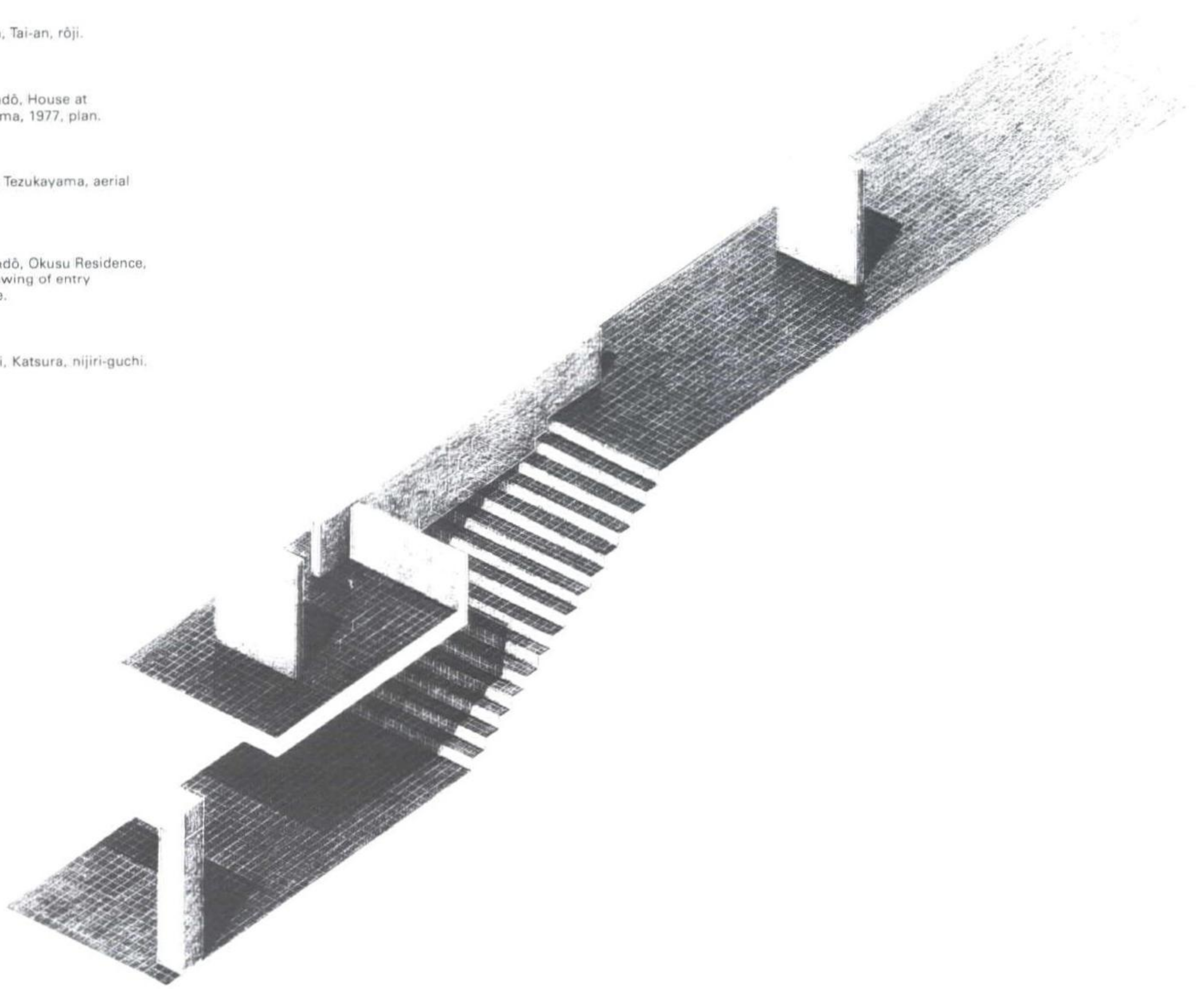
ki-an, Tai-an, rôji.

o Andô, House at
kayama, 1977, plan.

se at Tezukayama, aerial
.

o Andô, Okusu Residence,
3, drawing of entry
ence.

kintei, Katsura, nijiri-guchi.



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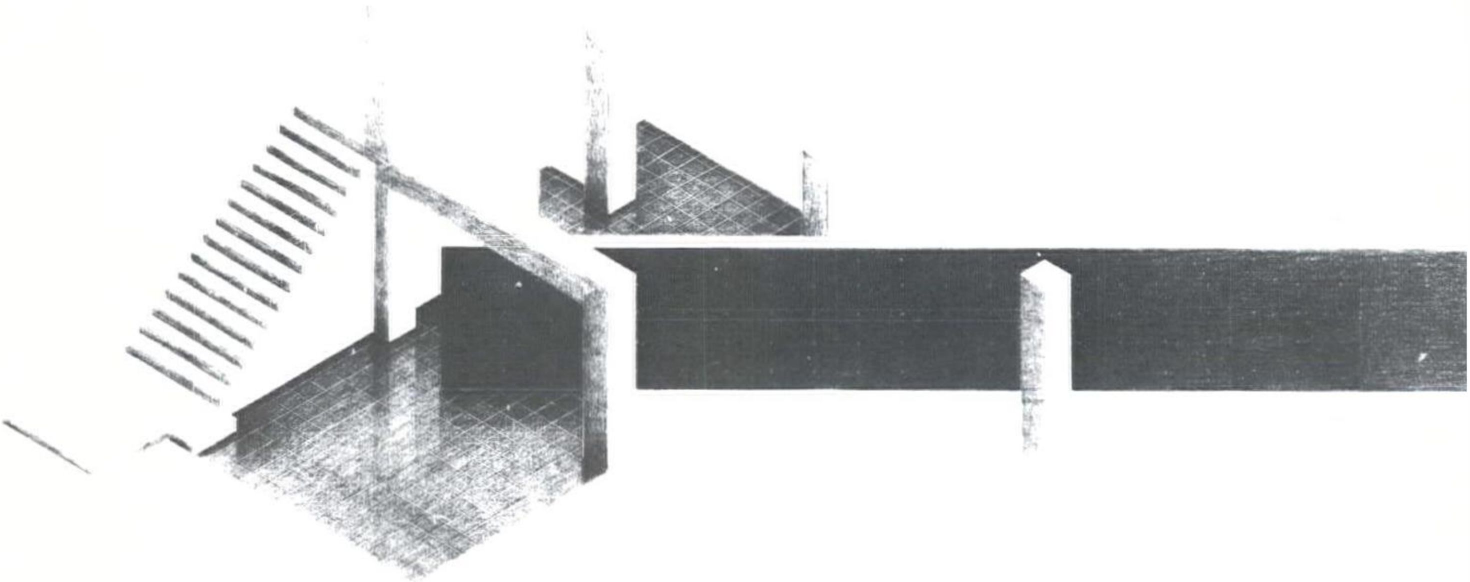
f circuitous approach is characteristic of ndô's buildings. For instance, the resience called the House at Tezukayama 1977), consists of two wings, with the ntrance in the inner one (figure 19). This eans that the visitor must enter through e front gate, pass the wing on the road ide of the house, and then mount a ently sloping staircase to reach the front oor. As he climbs the steps, the inclined wn of the garden is always visible on is left (figure 20). The device at the Okusu residence (1978) is somewhat different. After passing through a high gate frame–reminiscent of the *torii* gates in front of Shinto shrines–the visitor must pass through another gate and then mount a staircase, flanked by concrete walls but open to the sky, to the front door, which is on the level of the second story. Here he must go around another obstructing wall before finally reaching the entrance (figure 21).

The *rôji* garden varies the spatial experience between the entrance gate and the tea ceremony room and stimulates anticipation of new things lying ahead. To achieve these aims it employs a number of different features to complicate that space: gates, stepping stones, ritual water basins, small garden plots, waiting pavilions, and so on. Having passed through the *rôji*, the visitor must crouch to enter the tea ceremony room through a small, low door called the *nijiriguchi*, which is about 79 centimeters high and 72 centimeters wide–a fairly tight squeeze for an adult (figure 22). The psychological effect of crouching through this low doorway is to make the small, dimly lit space inside seem much deeper and more complex. The carefully placed windows controlling the natural light in the low-ceilinged room and the difficulty of entering it, intensify the impression of enclosure.



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In tea ceremony architecture and in the devices–architectural and other–used in the spaces around it, a certain hint of the labyrinth pervades the atmosphere.

Andô's architecture is characterized by a similar mood of the maze (figure 23). Though his plans and compositions are usually simple and lucid, movement lines within them develop in a complicated way. One of his major concerns is discovering the degree of complexity possible in simple plans.

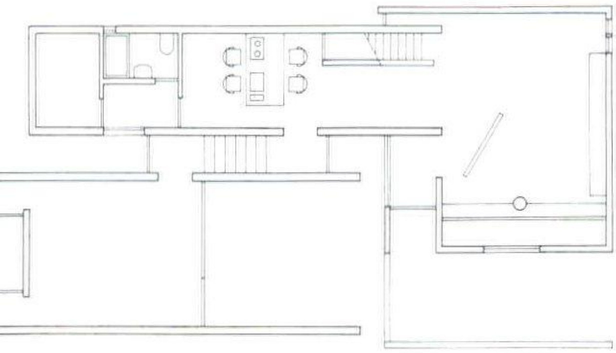
At the House at Tezukayama, the master bedroom is located in the block adjacent to the road. To reach it, one must cross the living room from the entrance hall; descend through a narrow, dark corridor, and then turn left. In short, one must make a complete circuit around the courtyard garden. At the Okusu residence, the path is further complicated by the addition of staircases (figure 24). The entrance to this house is on the second floor level. From there, one turns ninety degrees to descend an internal staircase. Then one passes along a corridor–the courtyard garden is visible on one side–and mounts another staircase to reach the master bedroom. Several right-angle turns are included in the Banshô residence, where a labyrinthlike quality has been strengthened by a recent addition (figure 25). At the Koshino residence, a staircase leads downward from the entrance to a spacious living room (figure 26). From this space, one turns 180 degrees and descends along a dark, narro corridor, at the end of which one must turn again to reach the wing housing th private quarters, all opening on anothe corridor with one wall pierced by narro slit windows admitting light into the di ness and enriching the spatial experien In all of these houses, there is a series

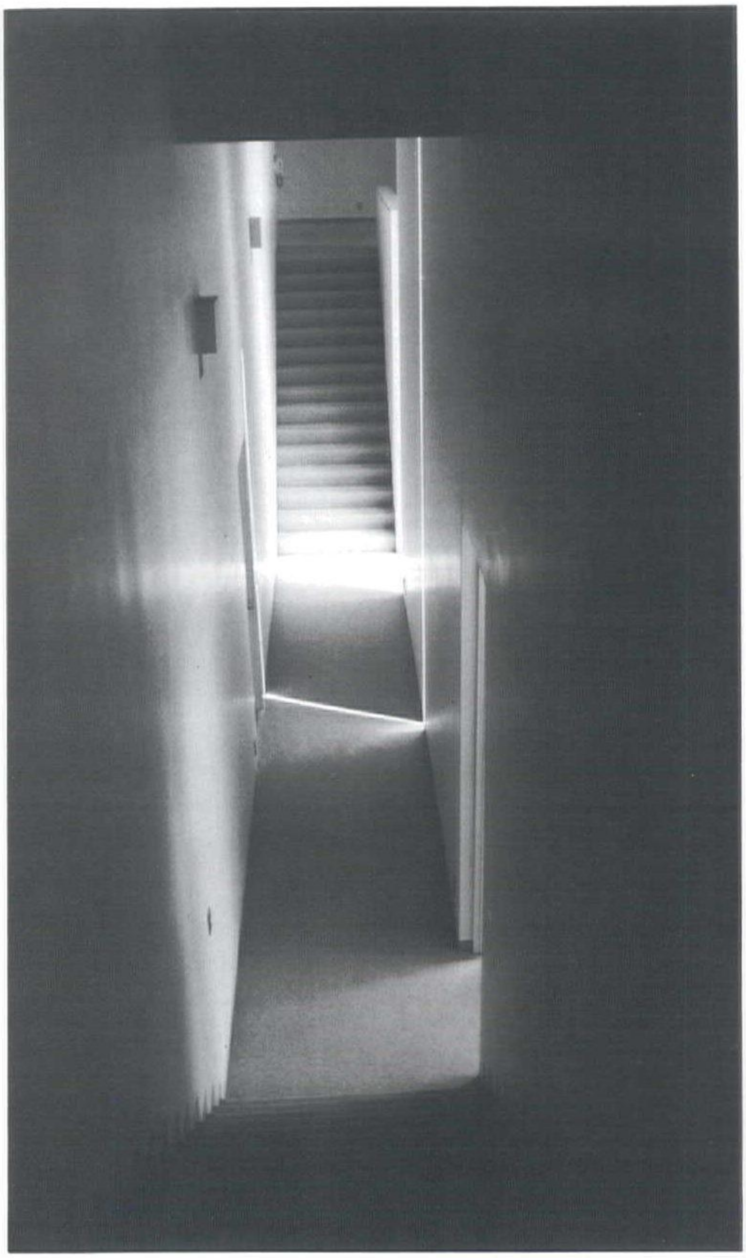
se at Tezukayama, drawing
try sequence.

u Residence, interior.

o Andô, Banshô
dence, 1976, first floor plan
r extension).

ino Residence, plan.





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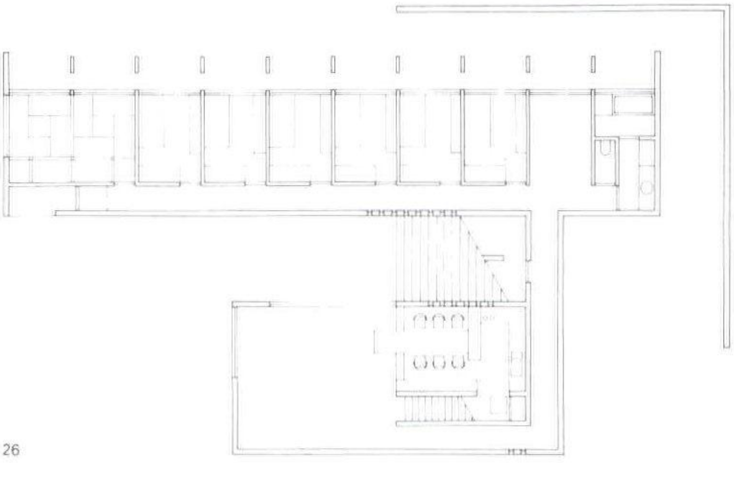

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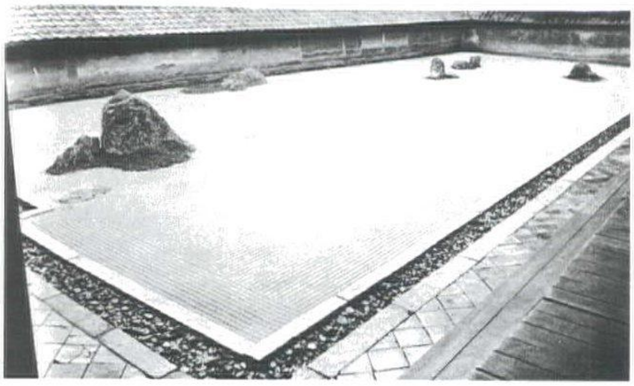

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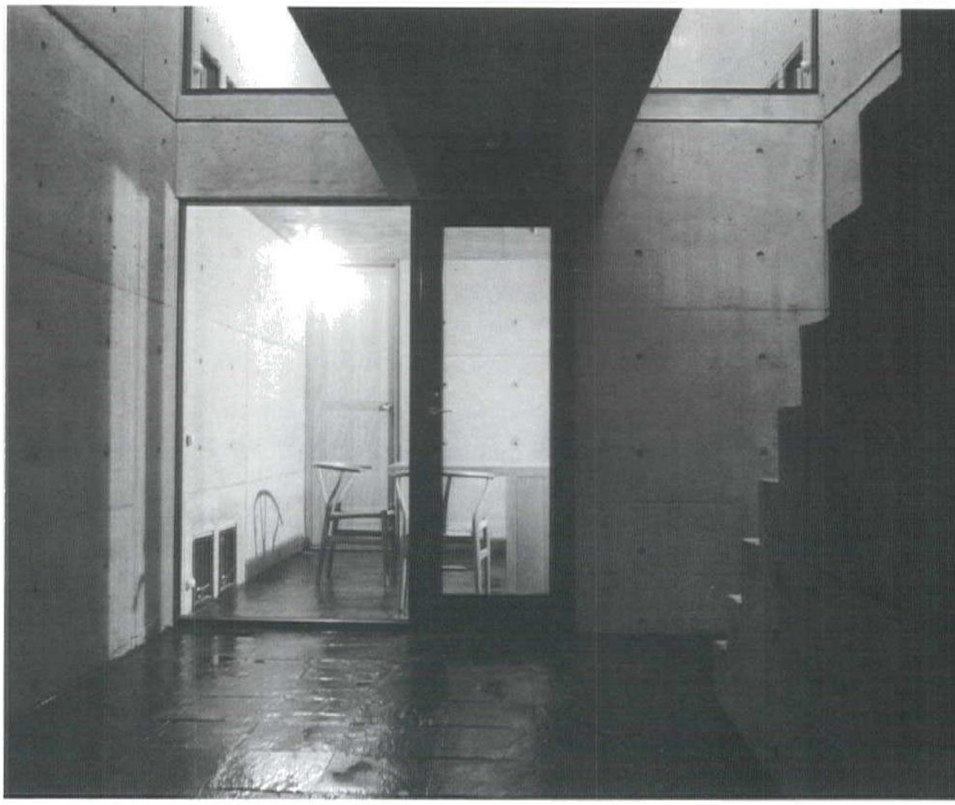

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spaces in which light and shade are contrasted in dynamic sequences to inject complexity and depth into fundamentally static plans with highly surprising results.

In daily life and in many fields of traditional culture–including *ikebana* and the *Noh* drama–the Japanese people are fond of calm, but it must be a calm charged with the tension of dynamic action. Architecture for the tea ceremony is based on an aesthetic of action inherent in the static state; and the architecture of Sen no Rikyû, where static elements are arranged to create active tension, is the ultimate expression of this aesthetic. Transcending the expression of mere action, and subtly revealing the active inherent in the static–a fundamental goal for all Japanese art–are aims shared by Rikyû and Andô.

Inclusion of the World of Nature

Though set in an urban environment, tea ceremony architecture strives for the mood of a mountain retreat. It shuts out the exterior world but introduces nature, in symbolic form. The symbolic representation of nature is a major current in all Japanese art, as is readily seen in such outstanding examples as the garden of the temple Ryôan-ji, where stones and white sand are used to depict islands and the sea (figure 27). Other gardens of this style–called *kare-san-sui*–are found in Zen temples in various parts of the nati (figure 28). Their symbolic effect is heig ened by their lack of moisture. In a climate like that of Japan, where humidity generally high, they might be describe as dryness in wetness.

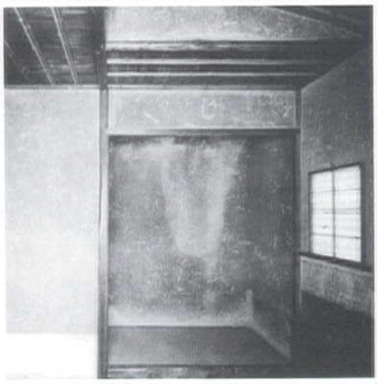
The same mood of a dry element place in a generally moist atmosphere perva the courtyard gardens that are always a part of Andô's residential designs (figu 29). In them, without directly introduci nature by planting trees, Andô symbolically includes invisible natural elements: light, wind, and sound. The an-ji, Kyōto, stone garden.

oku-ji, Daisen-in, east
t, dry garden.

o Andô, Row House at
iyoshi, courtyard.

ki-an, Tai-an, interior.

ino Residence, interior.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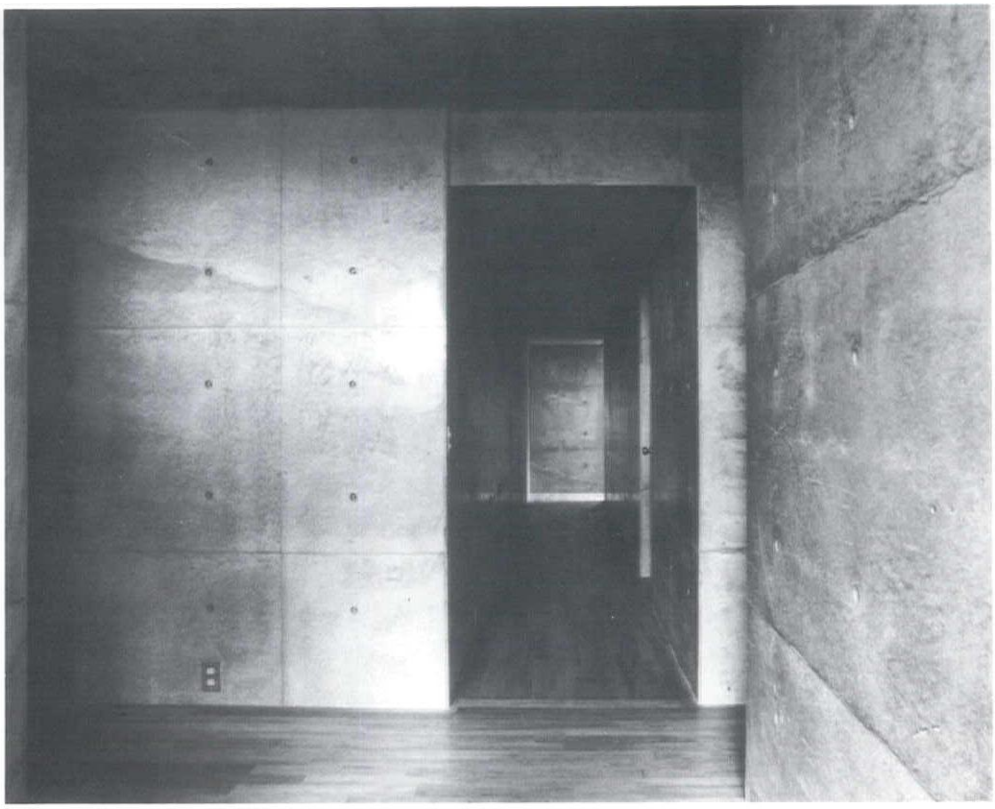
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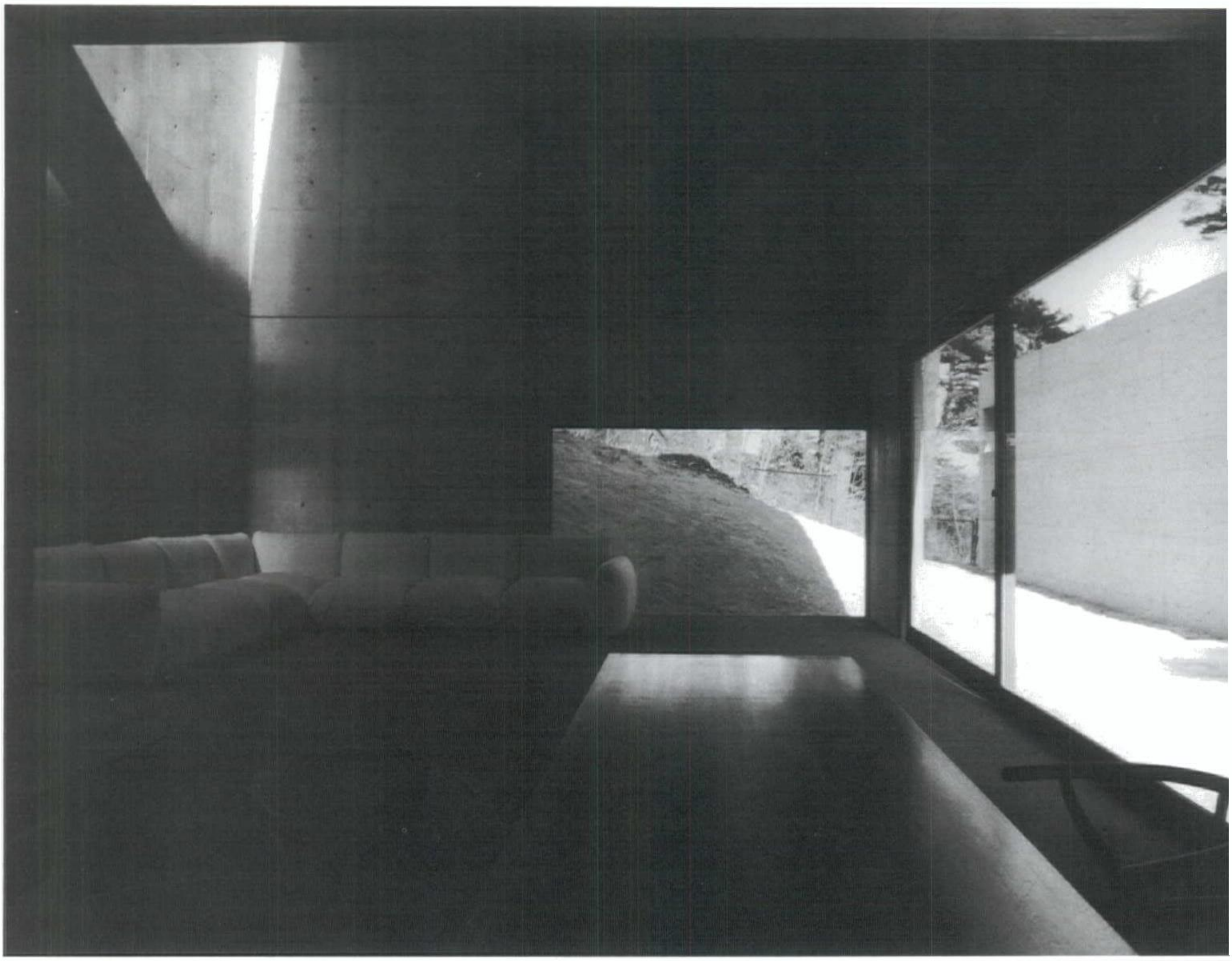
urtyards, open to the exterior only from e top, are generally composed of dry ements such as concrete walls and ooring, which is sometimes covered in one. Into this space, light, sound, wind, d rain fall to caress, illuminate and oisten the dry materials and in this way ve the people living in the house an sociation with nature. All of the rooms the house open onto this courtyard, om which they derive their only natural hting and ventilation, since the entire ilding is usually closed on the riphery.

aterials

king the humble houses of the common ople as its model, tea house architecture often employs unfinished logs, simply split bamboo, and walls made of clay with an admixture of chopped straw (figure 30). Coarse materials were deliberately used for the sake of creating an aesthetically pure, ideal world of sobriety, calm and refined rusticity. For example, miscanthus-thatch roofing in tea ceremony pavilions is selected, not out of economic or functional considerations, but solely for aesthetic effect. Designers of tea ceremony architecture carefully selected only those materials conducive to production of a microcosm compatible with the aesthetics of *wabi*.

Andô is most deeply concerned with creating his own ideal kind of space and, like the designers of tea ceremony buildings, carefully chooses the materials his ideal requires. In the case of the modern urban environment, the most natural of all materials is concrete. For this reason, Andô devotes maximum care to the best possible treatment of unfinished concrete in buildings in which he hopes to symbolize nature, and leaves only an echo of space as abstract architecture (figure 31). In light of the conditions prevailing in Japanese cities today, Andô's preference for unfinished concrete can be interpreted as the spirit of the *wabi* aesthetic expressed in modern terms.



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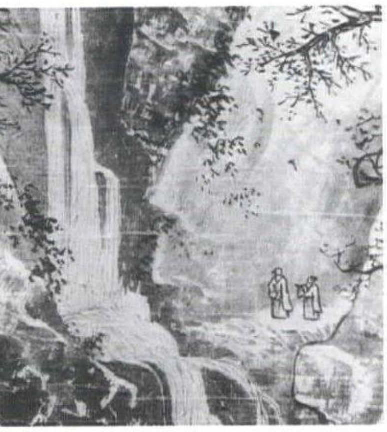
Design Principles

I should now like to turn to an examination of the principles controlling the manipulation, placement, and relationships of the physical things Andô uses to express his design intensions. The two most salient principles in his work are simplicity, and geometrical compositions (with a fondness for asymmetry). By means of these principles, and in accordance with the design intentions examined in the preceding section, Andô selects, places, and relates physical things to create overall spatial compositions.

Simplicity
The desire for simplicity is related to the tenets of Zen Buddhism, with which tea ceremony masters such as Rikyû maintained close spiritual connections. The exclusion of all surplus things, a fundamental Zen attitude, pervades all good tea ceremony architecture.

As I have pointed out, designers of such architecture like to use natural materials, to have them look as natural as possible, and to employ muted–almost monochrome–color schemes. Andô also severely limits the range of interior colors. His buildings are almost entirely unfinished concrete with the exception of floors and furnishings, which are of natural materials, and window sashes, which, though steel, are always painted gray, never bright self-assertive colors (figure 32). This approach, used both by designers of tea ceremony buildings and by Andô, is determined by a concern for th materials themselves and for spatial composition.

In addition, Andô is a direct heir of tea ceremony disdain for ostentatious decoration. When the tea ceremony architecture was in the process of evolution, monochrome ink paintings imported fro China became popular in Japan and exerted great aesthetic influence (figure 33 Their use in tea ceremony rooms and buildings gave added impetus to the pre erence for severely limited colors and to the reduction of interior ornament to no



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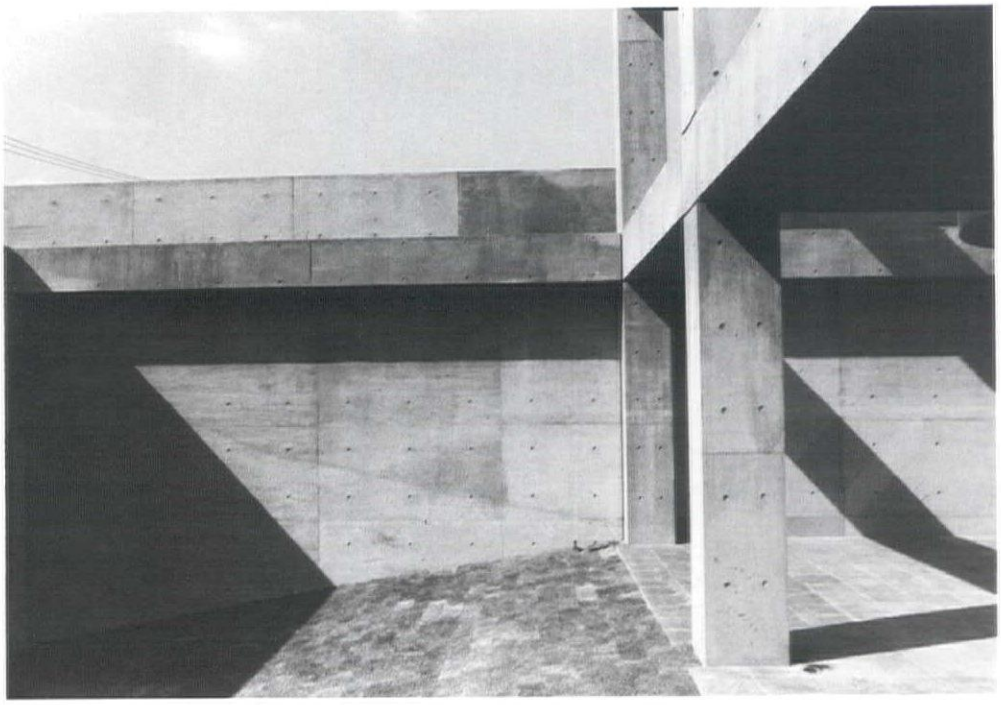

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32
Koshino Residence, living room interior.

33
Sô-ami, Shôshô-Makkei-zu.

34
House at Tezukayama, courtyard.

35
Kôdai-ji, Shigure-tei, east wall, exterior.

ore than a vase containing a very small mber of simple flowers.

nce it prizes the value of abbreviation, n philosophy tends to prefer a perfectly npty space to a space that is perfectly mplete. The same preference is to be en in both tea ceremony architecture d in Andô's work. For example, not only e Andô's courtyard gardens empty, but eir walls seem to have been deliberately ipped of expression (figure 34). He ives to create space by means of invisi-e, apparently nonexistent things. In ef, his kind of space can be called a id, but, ironically, a void in which all ngs are inherent. The idea underlying ch a space is common to much oriental ilosophy.

Geometrical Compositions
Rikyû aimed for regular forms and balanced proportions but included an element of distortion in his designs (figure 35). Similarly, Andô employs almost exclusively straight lines and geometric forms. When curves occur in his work, they are in the form of circles or parts of circles (figure 36). His designs stress floor plan pattern, in which balance between symmetry and asymmetry is important.

Though the Tai-an tea ceremony room, which I discussed earlier, is only two tatami mats in area, Rikyû, like many other tea masters, considered the standard room to be four and one half tatami mats. Such a room is perfectly symmetrical and square, but Rikyû broke the symmetry by using tokonoma alcoves, windows, and ceiling elements (figure 37). In other words, he first adopted the static symmetry of the square as a basic, then introduced dynamism by breaking the symmetry. His spaces express the tension inherent in the relation between symmetry and asymmetry. It is worth noting in this connection that a predeliction for asymmetry may be one of the most profound Japanese psychological characteristics (figure 38).

At a glance, Andô's buildings, especially his early ones, seem highly symmetrical (figure 39). This is partly because of his

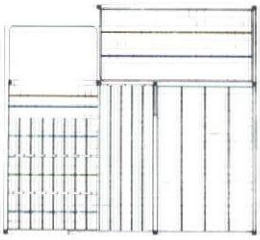
36
Koshino Residence, aerial view.

37
Myôki-an, Tai-an, ceiling.

38
Ura-Sen-ke, Konnichi-an, interior.

39
Sôseikan, plan.

40
Koshino Residence, shaded plan.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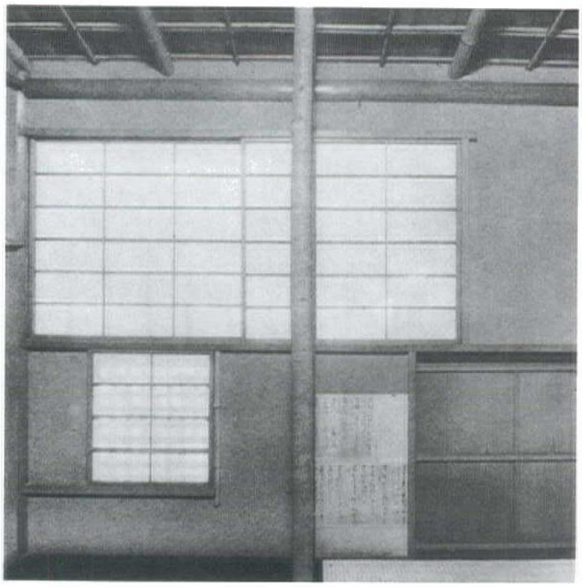
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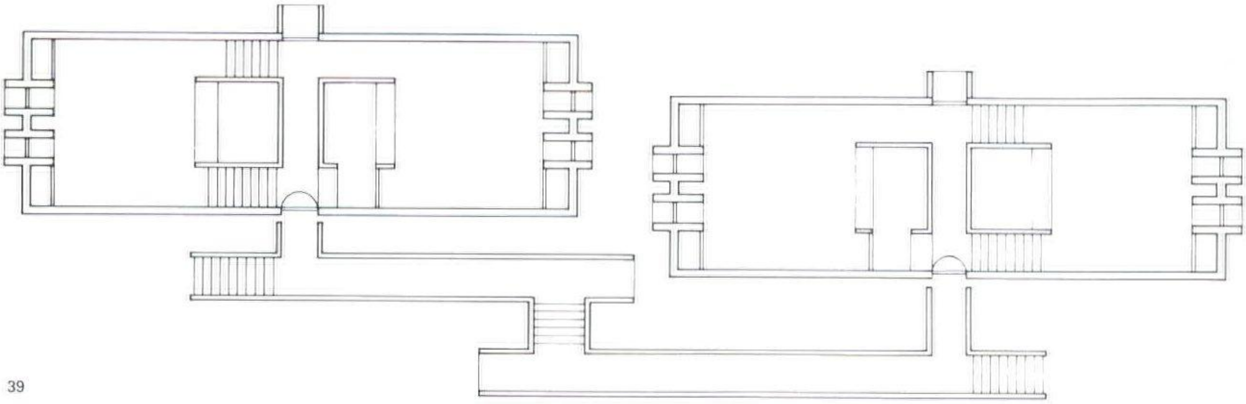
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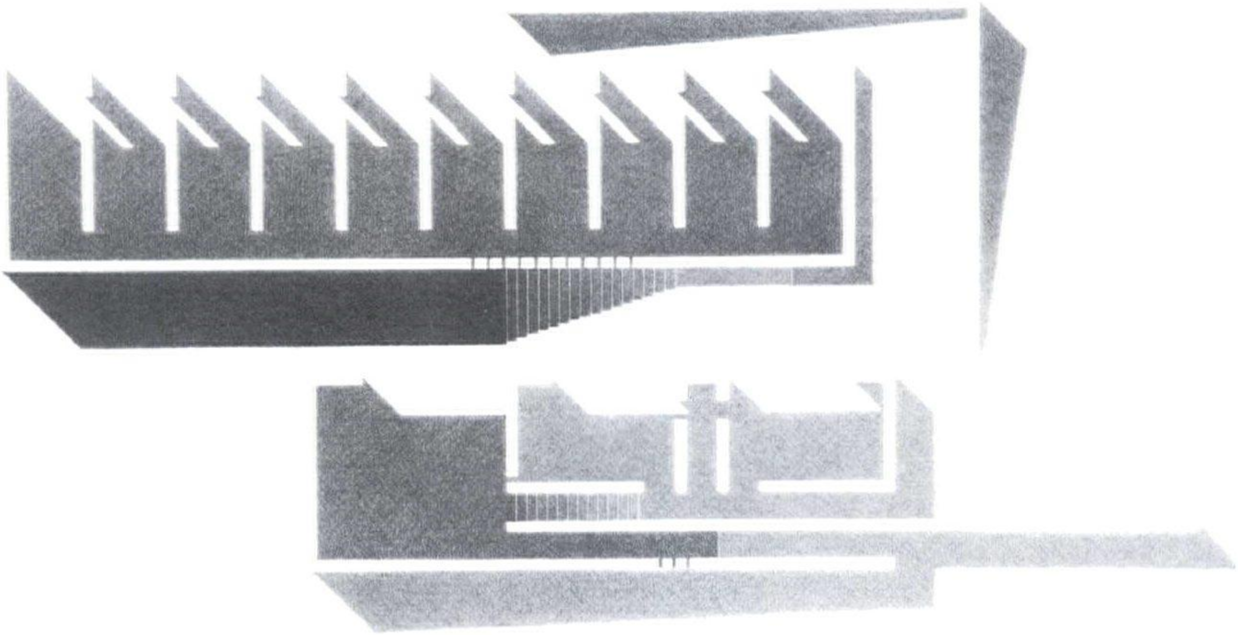

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scination with the number "2" and rela-
ns between pairs of things. A perfect
ation evokes symmetry, and a basic im-
e in his design is that of two things
rned toward each other. When two
ngs face each other, the intercession of
hird is unnecessary to the creation of a
orld. This is why Andô designs houses
at are open on the inside (where pairs
things face each other) and closed to
e outside (on which the same pairs of
ngs turn their backs). In architecture
mposed of pairs of things in relation to
ch other, it is scarcely surprising that
e use of symmetry should seem essen-
l. But, instead of insisting on symmetry,
dô creates a subtle distortion by means
lines of human motion, light or sight.
Symmetry is the premise governing the total composition. But, within the whole, asymmetry in individual parts infuses the dynamic into the static totality.

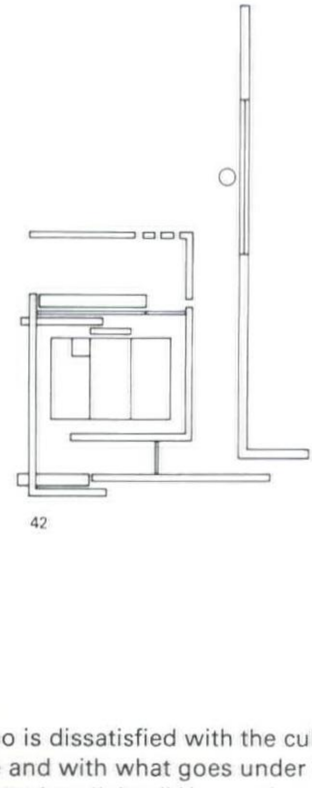
A more marked trend in the direction of asymmetry is apparent in some of Andô's recent works. For instance, the overriding intention in the Koshino residence is composition on the basis of balanced asymmetry, as is apparent from the plan, the wall surfaces, and the skylight placement (figure 40). The purpose behind this kind of plan seems to be a pursuit of spatial tension created by stability within the instability of asymmetry. Nonetheless, even when working in this vein, Andô persists in arranging pairs of things to face each other.

Spirit

Behind the methods and intentions employed by Rikyû was a spirit of reaction against the authority of his time, against the military ruler of the nation, Toyotomi Hideyoshi, and against the opulence and extravagance of the culture of the age (the so-called Momoyama culture). This spirit of rejection evoked the culture of unostentatious refinement described as *wabi*. In rejecting the gilt and glory of decoration of the Momoyama period, the spirit of *wabi* sought beauty in coarse, plain materials.

41
Tea Ceremony Room, Sôseikan, interior.

42
Tea Ceremony Room, Sôseikan, plan.



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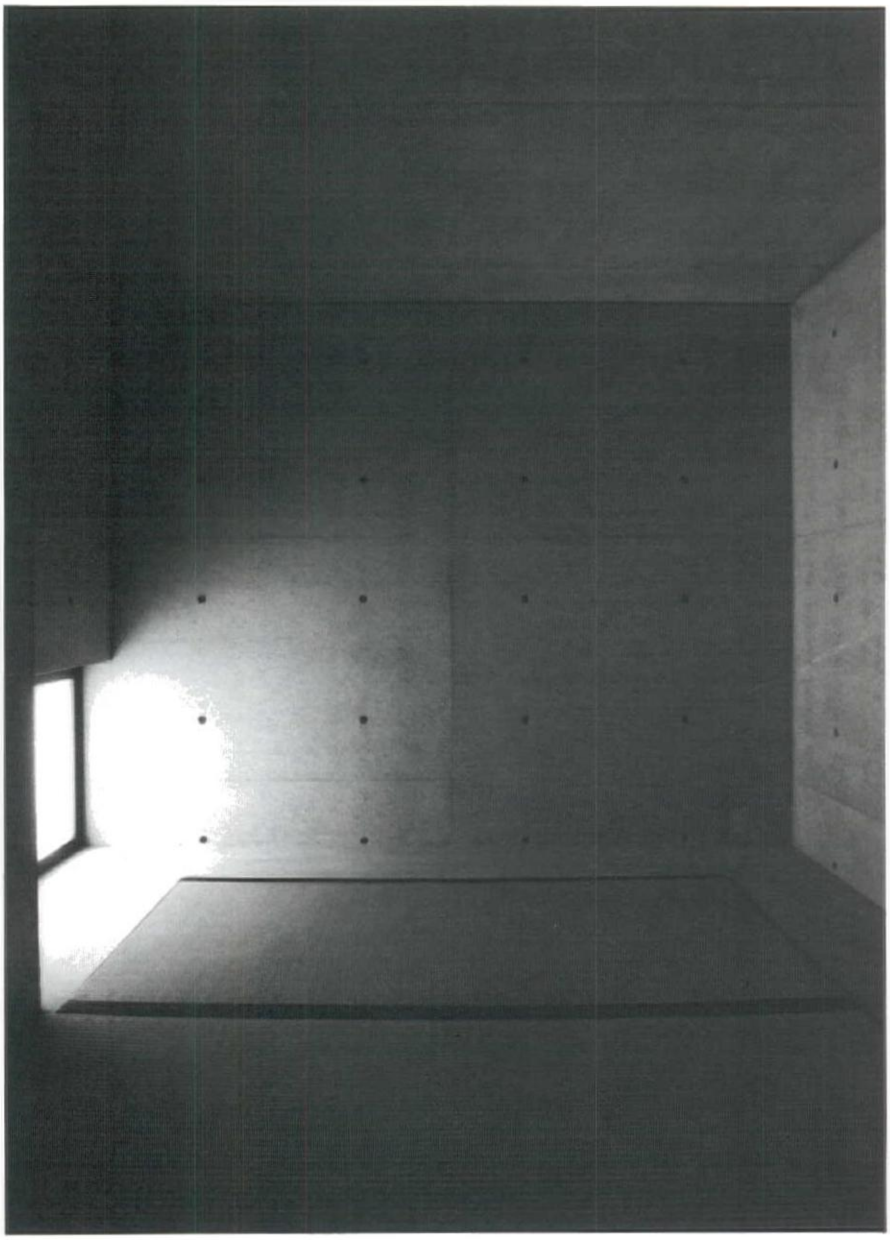

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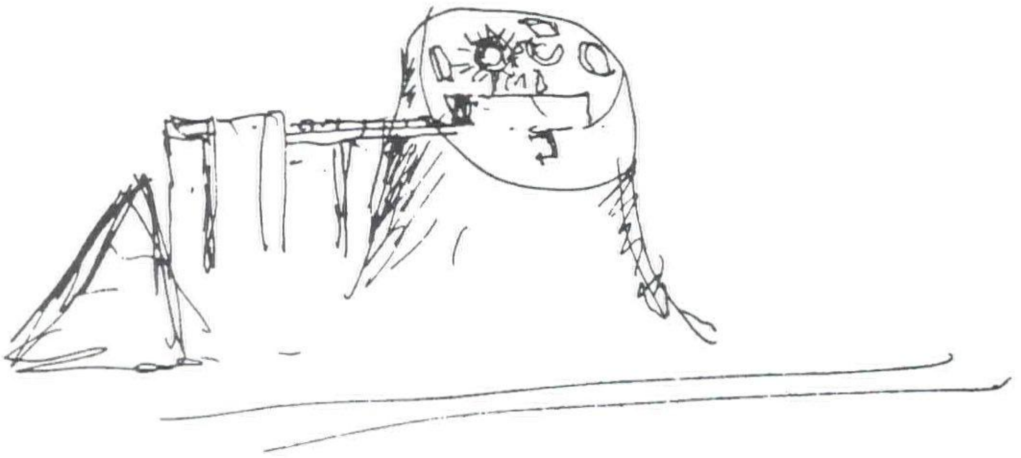
Andô too is dissatisfied with the culture of his time and with what goes under the name "modern living." He speaks out in favor of a simple way of life and against the trends prevailing in the consumer society. His void spaces are a criticism of the insipidness of the overly materialistic modern way of life. Rikyû detested the insipid as lacking tension. Because Andô too is unable to tolerate the insipid, he produces houses with hard, stone cold surfaces that resound on being tapped and that result in spaces taut with tension. The chill of Andô's concrete void spaces is symbolically similar to the ideal world Rikyû wanted to create in tea ceremony architecture.

The tea ceremony room Andô designed as an addition to the Yamaguchi residence (called the Sôseikan) represents very accurately tea ceremony architecture according to Andô's taste for composition and materials (figure 41). The room has unfinished concrete walls, floor, and ceiling, and is covered only partly with three tatami mats. The room is a compendium of all the Andô idioms I have discussed up to this point: spatial enclosure, carefully selected lighting effects, labyrinthine movement lines, a sense of dryness, simple materials, and a clear plan based on the strictest geometrical forms. Furthermore, the plan is symmetrical along a well established axis, but the positionin of the windows and other elements of t design subtly modifies the symmetry (figure 42).

It is by no means coincidental that Tad Andô is the man who produced what is no doubt the first tea ceremony room i concrete erected in Japan. The room is physical manifestation of Andô's spirit fellowship with tea ceremony architect in general and especially with that of S no Rikyû. As if it were a resurrection of Rikyû's world of *wabi*, the room is fille with the tension of the dynamic contai within the static. It exemplifies the act inheriting a tradition on its spiritual pla

Authenticity, Abstraction and the Ancient Sense: Le Corbusier's and Louis Kahn's Ideas of Parliament



rbusier, Parliament
ng, roof structures.

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> It is the proper study and labour of an artist to uncover and find out the latent cause of conspicuous beauties and from thence form principles for his own conduct.[1]
> *Joshua Reynolds*

1

According to the incantations of a recent vogue of criticism, the purgatory of modern architecture is over and paradigms, once lost, are now being regained. We learn that "modernism" sinned by rejecting convention and tradition in favor of utopianism, functionalism and a cult of innovation (to mention only some of the supposed ills) and that architectural salvation will ensue once a new communion with tradition has been made. Little is said about the criteria that may be employed to judge the relevance of one tradition over another, or about the difference between bogus revival and a valid transformation of precedent. Diffuse nostalgia is given a vague shape by opposition to a common "modernist" enemy. This adversary turns out to be a curious caricature of some of the progressive platitudes of a particular phase of the modern movement. Modern architecture emerges as a monolithic and determinist entity without subtle internal dissensions or varying preoccupations and traditions of its own. Le Corbusier, Aalto, Wright, Mies van der Rohe and the rest are rammed together with the most debased modern buildings and urban schemes as a sort of collective demonology. Thus an era is distorted and rejected with something of the simplemindedness that the pioneers of modern design employed in the rejection of their nineteenth century predecessors.

The misportrayal of modern architecture embodied in this critique is not entirely the result of propaganda. Ironically, it seems to stem from a warped vulgarization of the view of the subject presented by writers like Giedion and Pevsner nearly half a century ago. These early historians were preoccupied with defining the ways in which the new architecture was different from past ones, and with distinguishing a supposed genuine twentieth century style from the "evils" of nineteenth century eclecticism. Their picture was somewhat undiscriminating over the relative value of individual works and artists: it stressed links to modern technology, to progressive social thought and to the ideal of a modern machine age. The model was historicist in that it presume a *Zeitgeist* at the heart of the historical and cultural process striving for a holist expression in visual form. This became the stock-in-trade view in architecture schools in the 1940s and 1950s, when i was also generally assumed that mode architecture must be a good thing. Littl wonder that the recent backlash should have been so sweeping, for it has accepted the historical model while confe ring on it entirely negative connotations "Post-modernist" folklore relies for its very definition on the idea of modern a chitecture as a uniform and essentially rootless phenomenon.

This is not the place to sketch a revision history that might take into account the absorption of the past into individual vo cabularies within the broad framework a shared period style; or that might trea modern architecture itself as a complex tradition of evolving types, motifs and themes. If the modern movement involved forward-looking utopian myths concerning the dawning of a new age, i also involved radical ideals to do with th return to fundamentals. Wright deserve to be taken seriously when he speaks o "cause conservative" or of reinvoking "that elemental law and order inherent all great architecture,"[2] and we do well remember that Le Corbusier, the poet o *Esprit Nouveau*, sought touchstones in a cient Greek temples as well as siloes an cars. It impoverishes and misportrays th imaginative structure of these individua to remove an essential tension that existed for them between the most enduri values of the art of architecture and the need to cope with unprecedented problems in industrial civilization. If one probes beyond futurist rhetoric and beyond the outer skin of style, one encoun ters the ambition to formulate an archite tural language with the rigor and depth principle of the great styles of the past. The Villa Savoye, the Unity Temple, the Barcelona Pavilion–all buildings with ob vious place in the standard sagas of mo ern architecture–also deserve a place in any study reassessing the essentials of Classicism. "Post-modernist" dogma pr sumes that abstraction involves divorce from the past, but in the right hands it may become a device through which th artist enters the past on a number of lev els simultaneously and then transforms its lessons into an authentic form in the present.

Squabbles between "post-modern" and

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[1] Joshua Reynolds, *Discourses on Art*, ed. R. Work (Huntingdon Library Edition, 1959), Discourse VI, Lines 281–283, p. 101; first edition London 1797.

[2] Frank Lloyd Wright, "In the Cause of Architecture," *Architectural Record*, 23 March 1908, p. 158.

"modern" tend to have limited critical value precisely because they oversimplify the relationship between invention and precedent. Both sides in the debate are guilty of describing externals of architectural dress without differentiating between the genuine transformation and the pastiche. A soggy critical method can easily ensue which is unable to distinguish between Mies van der Rohe's Lake Shore Apartments, for example, and the routine steel and glass box or–come to that–which fails to understand the difference between a profound Renaissance work like Bramante's Tempietto, and a devalued revival of the same formula. The method reaches its lowest point when precedents are called in as talismans to confer automatic value on copies of them, no matter how feeble. Such critical dangers attend any scheme of classification which stresses the communal aspects of style at the expense of the individual work's special order and synthesis.

This is precisely where the question of authenticity is hit head on, for it is that nebulous quality which confers symbolic and formal vitality on even a wellworn formula. One thinks of the Parthenon, a sublime order within an accepted type, or of Hawksmoor's Mausoleum at Castle Howard, a descendant of Bramante's Tempietto which has an utterly rethought meaning and character of expression; or one thinks of the tension and poetry of the Villa Savoye as compared with the dullness of Gropius' Harkness Commons Dormitories, a building employing analogous stylistic elements like pilotis and strip windows. Dead forms, mere replications of motif, lack a certain tightness between idea and form, and, perhaps as a result, their visual effect is tired and without vitality. One is tempted to paraphrase T. S. Eliot and suggest that the good work of architecture "communicates before it is understood": its deepest and indivisible symbolic powers are exteriorized through patterns of forces that have an immediate and dynamic effect on the emotions and thoughts of the observer. The authentic work transcends the mere mechanics of iconographic convention and touches on areas of a more lasting and more universal symbolism. It maintains an expressive presence long after the codes of particular cultural messages have been forgotten; symbolic and intuitive potency exist far beyond the mere legibility of signs.

If the authentic symbolic form has a certain indivisible character, something similar is true of its relationship to personal and period styles: it blends together a number of stylistic strata from the past in a new and irreducible amalgam. Focillon has astutely written that the principle underlying a work of art is not necessarily contemporary with it: the imagination obeys no simple linear chronology and refuses to be trapped by a single time slot. This is why, for example, it is preposterously simpleminded to call H. H. Richardson a "Romanesque Revival" architect. His architectural system received nourishment from ancient Roman viaducts, from Early Christian work in Syria, from Romanesque examples in the Auvergne and in Spain, from Renaissance Florentine *palazzi*, from Viollet-le-Duc's versions of medieval fortifications, from New England vernacular structures, from the inherited schemata of nineteenth century Beaux-Arts Classicism–and so on. What really matters is that this architect managed to forge these obsessions and sources into a consistent architectural language appropriate to both his own sensibility and the cultural problems of his time. Similarly it oversimplifies Wright or Le Corbusier or Aalto just to call them "modern." They too had their roots in various past traditions: even those of their works that conformed most obviously to the rules of the "International Style" had utterly different internal chemistries and links to the past. One has only to think of the transformation of Classical examples in Le Corbusier's villas of the 1920s to realize that the best "modern" work has rested on a capacity to rethink tradition in new terms. Authentic works possess a sort of temporal depth and resonance: it is even tempting to suggest a substructure of values essential to the medium which is tapped by works of principle no matter what their period.

Part of the power of the authentic work stems from the mythical dimension in the artist's mind. Central personal concerns are liable to crystallize as formal, and thematic obsessions which in a form-maker of depth will have a certain ritualistic capacity to address the values of a broader culture: conventions and societal assumptions may then be refashioned into a terminology of personal force and cogency. The crucial issue is, once again, a profundity of synthesis. But this will be facilitated if the artist has certain type-forms and patterns of visualization that can be gradually perfected to contain the appropriate content. The individual's family of forms emerges gradually as he extends tradition and begins to clarify personal themes. Eventually, through constant trial and error, a stylistic identity, which is still capable of flexible usage, emerges. The true style is the opposite of a dead formula: it is a basis for perception and expression; it supplies consistent devices for ordering ideas and forms according to intuitive rules and, despite repetition, it is a restraint that allows creative freedom while giving that freedom a direction and an aim.

In a sense every artist is an "eclectic," since he draws on many past examples to define his true manner, yet there is still a vast difference between the superficial assemblage and the authentic work. The strength of the latter lies in its greater formal presence, in its power to move through the action of forms, spaces and proportions, in the fitting expression of a significant content, in the submission of details to the vitalizing *Gestalt* at the heart of the work. Parts and whole, elements and system, will seem to have an inevitable and, as it were, natural relationship to one another. The artist who has found an appropriate language for a genuine myth will also possess the imaginative force to forge together past experiences into new unexpected wholes which are utterly convincing. One thinks of the extraordinary "rightness" of Palladio's fusion of the Classical temple front with the rural vernacular, despite the lack of any obvious connection between the two; or of the Plaisaunce Garden by Lutyens where a pergola vocabulary of polygonal pointed roofs is combined with Doric supports in a magical new synthesis. The solarium of the Villa Savoye is another example of an unlikely combination (ocean liner funnels, Purist paintings, etc.) which still emerges as an indissoluble imaginative compound. The strength of a genuine fusion, in contrast to the mere concoction or replication lies in a realm of intuitive appropriateness which far transcends any passing ideal of grammatical correctness. The key to success seems to lie in a forge of abstraction linking disparate elements. The pastiche lacks such bonds of form and content and remains a superficial manipulation whereas the authentic work is the vital expression of a deeply felt idea.

2

There is no simple check-list for a quality as nebulous as authenticity, especially as there will never be a concensus over artistic excellence. Still it seemed worth mapping out the limits of the subject, an insisting that criticism grapple with the difference between the genuine and the fake, rather than advertising fads and fashions. The time has come to concentrate on the genesis of particular examples. I have chosen two relatively recent buildings which belong, in a broad sens to the Modern Movement, but which als transcend their period, as profound wor of art will tend to do. The first is Le Corbusier's Parliament Building at Chandigarh (1953–63); the second is Louis Kahn's Parliament at Dacca (1962–70). Both buildings are rich in institutional ar cosmological meanings, both possess a archaic character, and both stem from a stage in modern architecture which had long since rejected a wholly mechanistic utopia. Both are works of maturity restin on clearly formulated architectural princ ples and languages, and both are steepe in Eastern and Western monumental traditions. To dig down beneath the surface of these works is to confront the transforming power of authentic style.

Le Corbusier's Parliament (figure 1) stands among the other monuments of the Chandigarh Capitol, and contributes to the actual and figurative "head" of the city. Within the acropolis complex itself i is the visual and symbolic counterpart o the Justice building opposite, whereas the Secretariat is subsidiary and to one side. The intended crowning element, th Governor's Palace, was not built, so the Parliament is the dominant structure. Th building is obviously a cousin of the late works like Ronchamp or La Tourette. Complex curves come into tense opposition with a cartesian grid to generate the dramatic effect of an *éspace ineffable*. Heavily weathered bare concrete lends a ancient and primeval character to the building as if it had stood for centuries rather than decades. A number of rhetor cal devices are used to impress the significance of the building's function on th observer. The entrance is signalled by a long, low portico over a giant enamel door preceding an inward-looking box into which the main "objects" of the assembly funnel and the senate pyramid have been set asymmetrically. Thus the internal hierarchy is expressed clearly or the exterior, but these forms also cause a constant tension and opposition as one moves around; they seem to draw the fa distant setting into dialogue with the building. On the interior, the funnel-hyperboloid descends into a shaded hypostyle with a grand order made from mushroom-capped concrete columns—a space that would not be out of place in Ancient Egypt. The outer fringes of the box other than the portico are given over to offices on a much smaller scale and are furnished with deep cut *brises-soleil* which catch the shadow and give the building an even greater sense of grandeur and *gravitas*. In the hot season, when all is parched and brown, the Parliament rhymes with the outcrops of the Himalayan foothills in the distance. Impeccable control of mass, silhouette and surface ensure sculptural tension from any viewpoint. The result is a building of solid dignity, as befits an emblem of state.

To trace the genesis of the main forms is to watch a mature style in action and to see various precedents and examples being absorbed into a work of architecture with its own expressive rules. When Le Corbusier was employed to design Chandigarh in 1951, he fixed the city plan quickly, blending together the principles of the Ville Radieuse, with vistas and boulevards stemming from the Baroque (or even from the example of Lutyens' New Delhi) which he adjusted to the requirements of a democratic state government for the Punjab.[3] Like his British predecessor, Le Corbusier sought a synthesis of Eastern and Western values in his designs for the monuments, but where Lutyens had had the job of anchoring the rule and splendor of the British presence, Le Corbusier had the complex task of expressing the traditions and the capacity for innovation of a newly independent India. He concentrated most of his attention on the Capitol monuments beginning with the Governor's Palace (figure 2), eventually abandoned, in which he established the main symbolic motif of Chandigarh: the upturned crescent form supported on stanchions and creating a shaded space beneath it.

Thus his initial response to India was climatic, and it was this that led him to the common-sense device of a horizontal shading parasol against the rigors of the tropical sun and the monsoons. Such a formulation stemmed naturally from his architectural system, since horizontal overhangs on slender posts were virtually intrinsic to his vision of a concrete architecture. The practical was rapidly turned into the mythical as Le Corbusier sought ways to poeticise this direct acknowledgment of natural forces. Among his travel sketches are some comparing upturned roof structures in vernacular buildings with the silhouette of bulls' horns (figure 3). The bull was a longstanding obsession in Le Corbusier's paintings and drawings, and in this context may have had a specifically local symbolism related to his feeling that India might attempt to preserve longstanding peasant and "natural" values while still benefiting from industrialization. As Le Corbusier seems to have dabbled in "the delights of Hindu philosophy," sacral overtones related to oxen may have been intended too. But the upturned crescent seems also to have been a transformation of an ancient symbol of authority, the umbrella. Perhaps this was known to Le Corbusier through examples like the caves at Ajanta, in which the umbrella could in turn be found standing on a horizontal base extending into space. Or perhaps he grasped the image through the much later variant in Islamic architecture, the "chattri" or domical parasol lifted on supports with a shaded space beneath. Indeed, the Governor's Palace, portrayed at the other end of a sequence of pools and level changes, silhouetted dramatically against the sky, recaptured something of the character of the audience chamber or Diwan-I-Khas at Fathepur Sikri (figure 4). It seems likely that Le Corbusier grasped intuitively the extent to which Islamic architectural vocabularies resulted from a crossbreeding of imported forms and longstanding indigenous ones. He simply added another step to this process of symbolic transformation.

But his aim was not to express another imperium. The dome, with its overtones of centralized, undivided authority and divine sanction for the head of state, would not have been an appropriate symbol even if Le Corbusier had been capable of using one. In his view the symbolic form was a dead one, no longer engaging emergent social realities, and an impermissible one given his preexisting architectural language. So the parasol-dome was transformed into a counter-shape which may, in Le Corbusier's mind, have had a new connotation related to the "Open Hand," an emblem of international peace and generosity embodying the artist's pan-cultural idealism. The upturned shape served further to link the building to the sky and the planets above. Thus a single shape which had already served a variety of representational functions in Le Corbusier's oeuvre, and which possessed certain intrinsic anthropomorphic qualities, was blended with new practical, structural, and symbolic purposes.

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further discussion of the design process at ndigarh, see Stanislaus Von Moos, "The Politics of Open Hand; Notes on Le Corbusier and Nehru at ndigarh," in Russell Walden, ed., *The Open Hand, ays on Le Corbusier* (Cambridge: MIT Press, 1977), 12; also William Curtis, *Fragments of Invention: Sketchbooks of Le Corbusier* (Cambridge: MIT ss and the Architectural History Foundation, 1981) William Curtis, *Modern Architecture Since 1900* aidon, 1982 and Prentice-Hall, 1983) p. 281 ff.

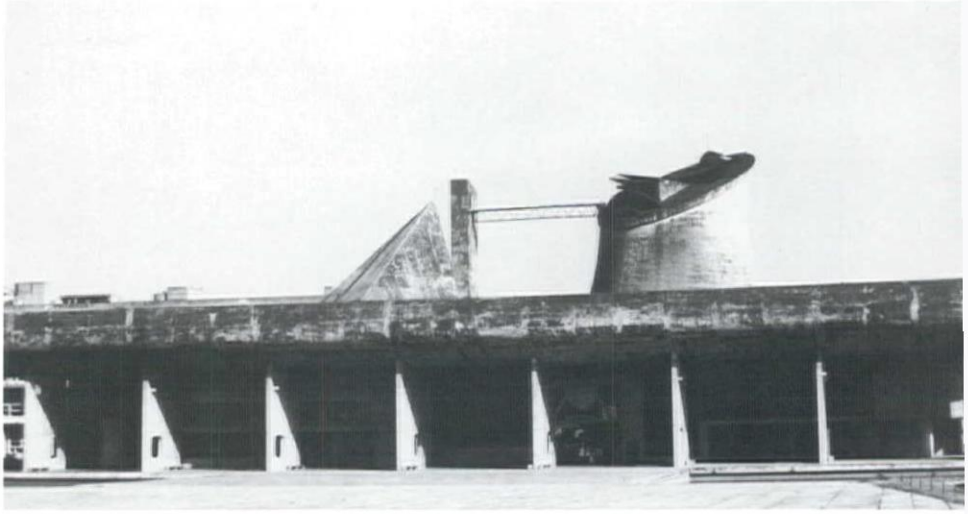
1
Le Corbusier, the Parliament Building, Chandigarh, the Punjab, India 1951-62.

2
Le Corbusier, the Governor's Palace, Chandigarh, project, 1953.

3
Le Corbusier, sketch of bull's horns and roof, 1953.

4
The Diwan-I-Khas, Fathepa Siki, late 16th century.

5
Le Corbusier, Parliament Building, early sketch, 1954.



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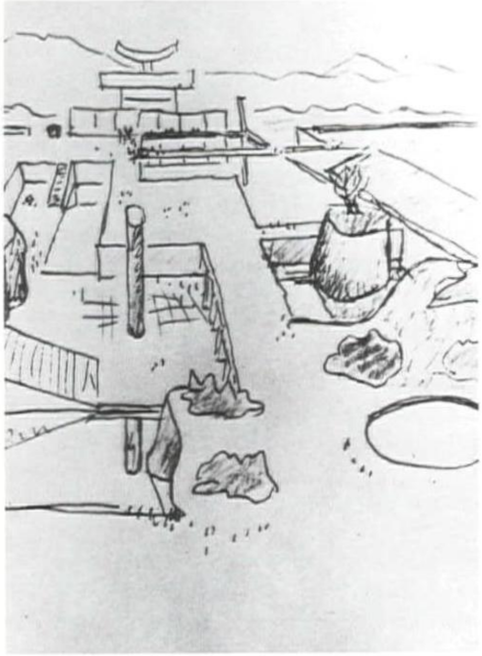

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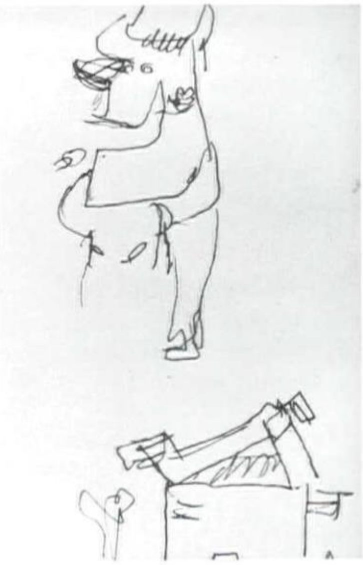

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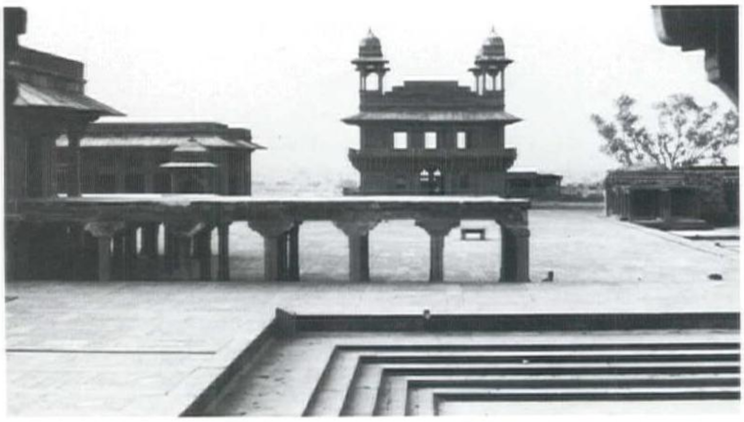

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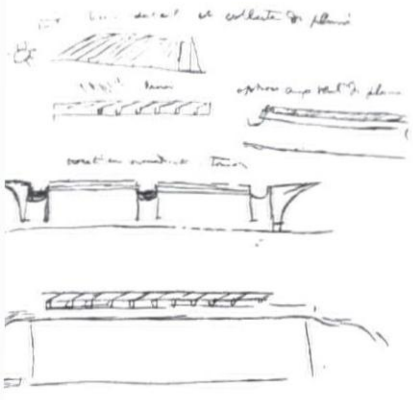
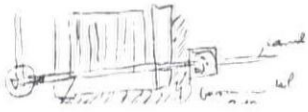
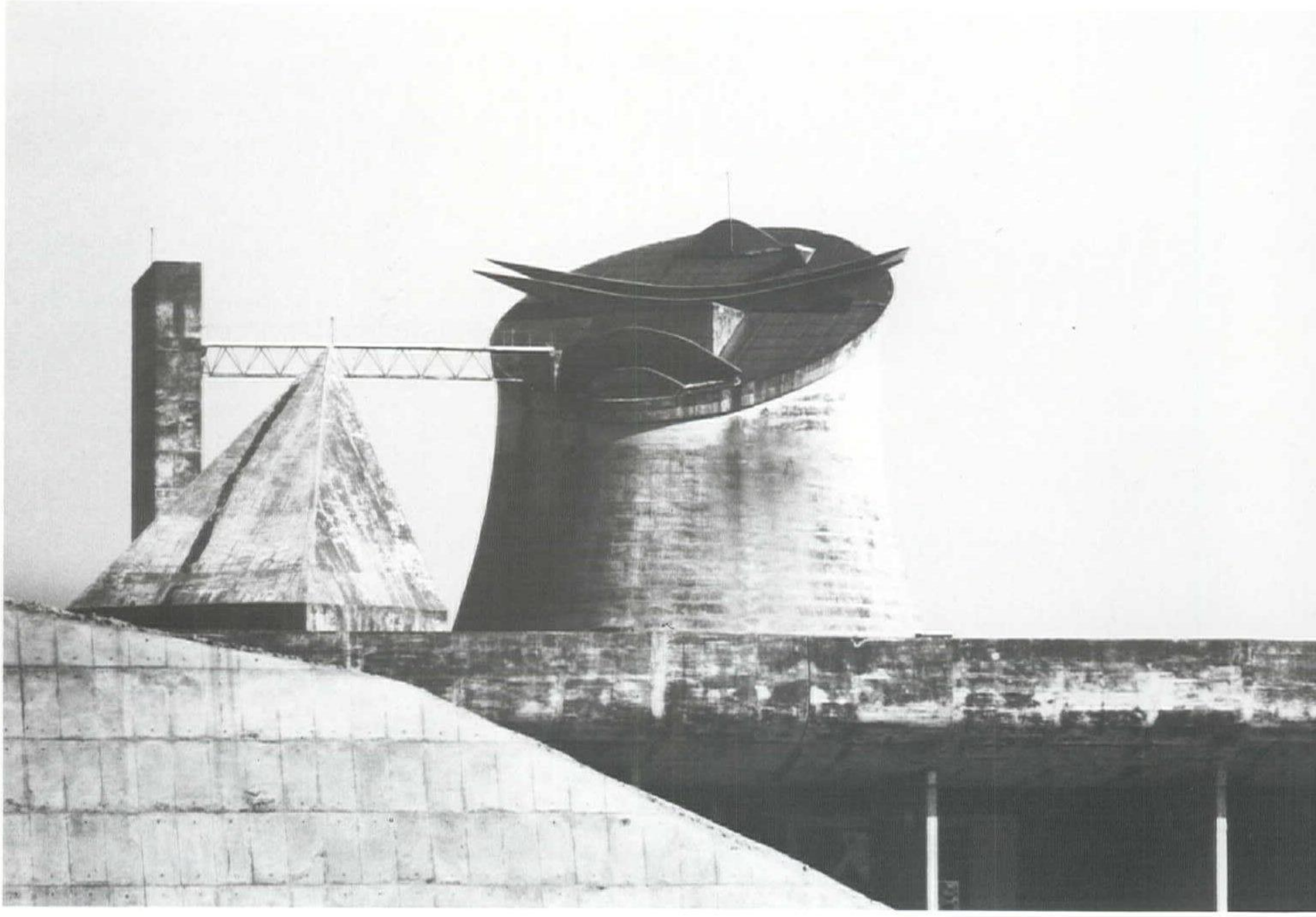




Neither the Governor's Palace, nor the Open Hand sculpture designed to replace it, was built. But analogous ideas did find their way into the Parliament Building. This began life as a large shaded box preceded by a tilted portico of which the top surface was upturned to act as a gutter; as at Ronchamp, Le Corbusier was evidently intrigued by the idea of a roof as an enormous sluice for the rain. The interior arrangement extended a deeply engrained Corbusian pattern: a free plan with curved partitions defining the main functional organs within a grid of supports. It was when problems of lighting, ventilation and rhetoric came to the fore that Le Corbusier broke the assembly form up through the roof to create a lighting and airing system, and a shape with symbolic potential. Among his early doodles were ones referring to the penetration of sunlight and moonlight; there were even curious references to "nocturnal festivals." (figure 5). But while cosmic overtones were intended, the hyperboloid shape seems to have been inspired by an industrial form: cooling towers. The syntax pattern which placed a curved stack in the heart of a box was nothing new: it was a variant on a scheme that Le Corbusier had employed as early as his 1920s villas. But at Chandigarh the stylistic motif was rethought to the demands of the new context, and given new associations. In one version a spiral was shown winding its way around a funnel shape. This provided a practical walkway for the cleaning of skylights, a leitmotif of the Modulor and an image of growth and aspiration: one wonders if Tatlin's Monument to the Third International may not have exerted an influence? And surely Le Corbusier knew the stunning spiral minaret of the Mosque of Ibn Tulun in Cairo, with its stair rising towards heaven? Evidently the artist stopped off in Cairo between Europe and India and visited some of the classic sites. But conceptually, the funnel was less a minaret than a rethought dome. In some sketches he compared its section and lighting system to the dome of Hagia Sophia. Celestial connotations were reinforced when he introduced the idea of a single beam of light to descend from a hole in the top of the funnel and hit the Speaker's area within, at the time of Parliament's opening. This was to remind man that he is "a son of the sun" and to invoke the controlling rhythms of nature in the affairs of man. As to the source, it was surely the Pantheon (figure 6). And just as the Pantheon implied a microcosm linked to the planets, so Le Corbusier's assembly chamber was supposed to be a miniature world within a world. In this way various images and meanings were compressed into a single symbolic form and linked to an institutional and cultural interpretation of the idea of a Parliament.

A similar analogical procedure of transformation is sensed in the design of the top of the funnel with its tilted plaque, its upturned crescent and its counterpart, downward-turning curves (figure 7). To enliven the form and make it address the setting more dramatically, Le Corbusier tilted the funnel slightly. But there was still the problem of having the shape meet the sky. Le Corbusier let it be known that he wanted the top to be equipped for "the play of lights" and that he was thinking of it as a sort of observatory; this suggests, and the form reinforces the suggestion, that he may have been inspired by the extraordinary sculptural shapes of the astrological ramps and platforms of the Jantar Mantar (figure 8) in Delhi (or perhaps the equivalent at Jaipur). Planetary, crescent paths can be found traced in stone in these prototypes, and the artist's doodles and designs for reliefs and enamels indicate that he was fascinated by the contrasting flatnesses of curvature between the sun's path at the equinox and at the solstice (figure 9). The upturned curve, of course, was a variant on the Governor's Palace crescent, and probably bore its multiple loads of association, but could also be read as an armature for carrying the planetary realm. An intriguing analogy is also suggested by some of Le Corbusier's sketchbook doodles where he returns time and again to the image of an oxcart wheel with a crescent shaped chassis (figure 10). Undoubtedly the shape was deeply pleasing to him on its own, but perhaps, like the horns of the bull, it was a metaphor for the long traditions and slowly evolving technologies of India? I suggest that a number of overlapping concerns may have been combined–the slow turning of the wheel, the rotation of the seasons and the planets, the unfolding cycles of human life. Perhaps this was the artist's conception of the fate of man, charted through institutional and moral choices, yet embedded in a cosmic design? As with the parasol, the wheel was an image of complex political and theological meaning in Indian tradition.



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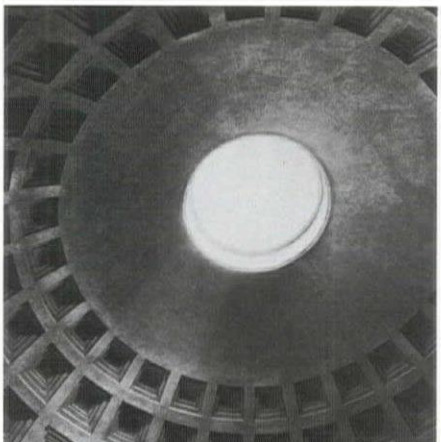

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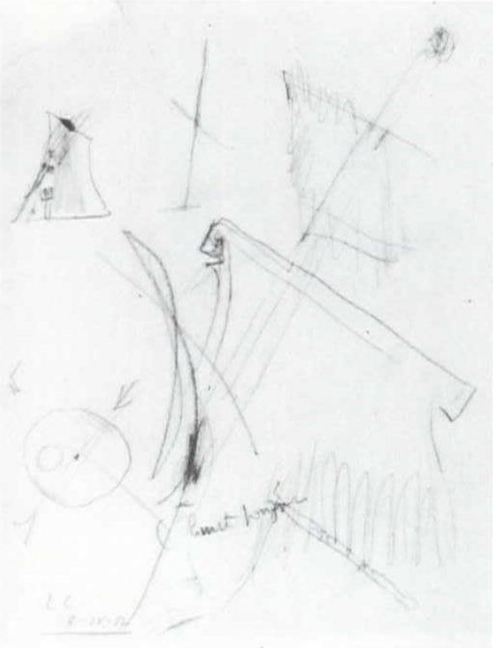

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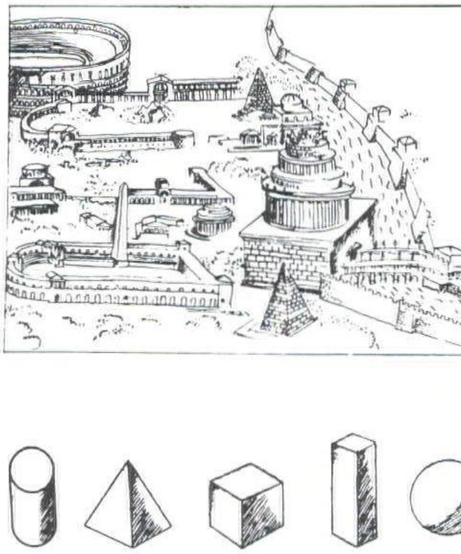

11

heon, Rome, 120 A.D.

orbusier, Parliament
ding, roof structures.

orbusier, Parliament
ding, sketch of "funnel"
ving light penetrating
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orbusier, "The presence of
oast and the past of the
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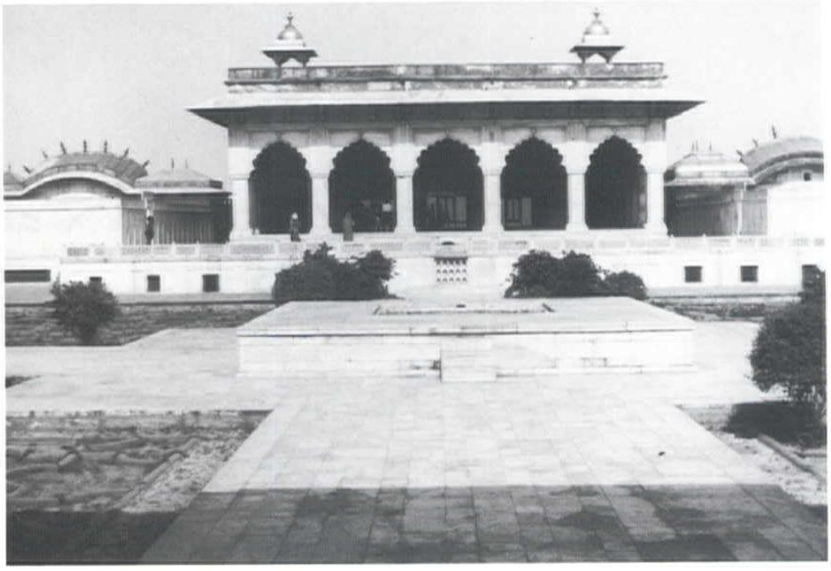

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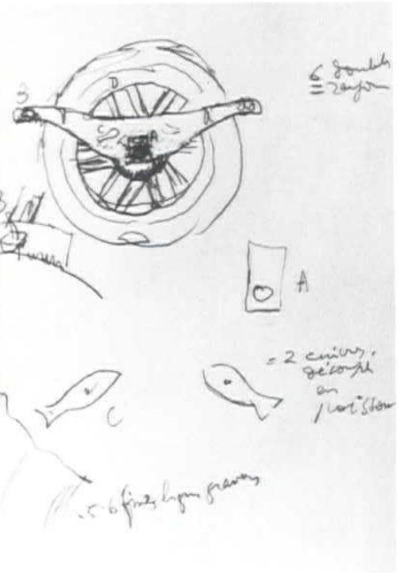

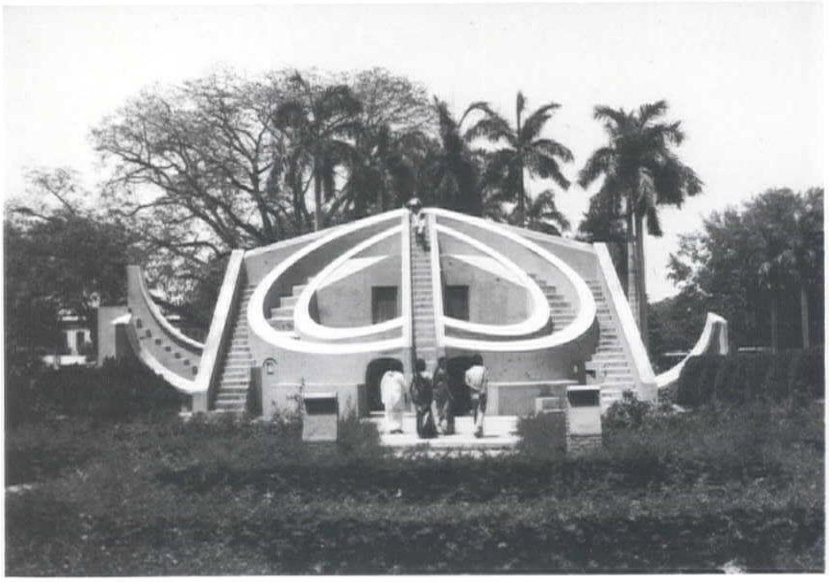

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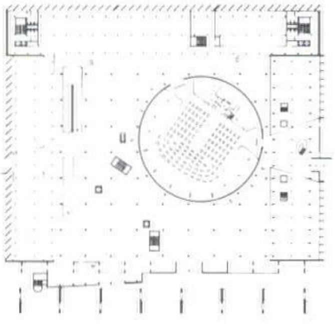
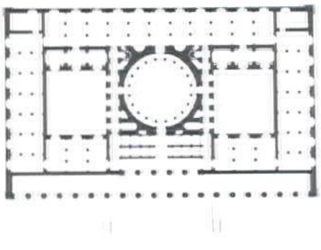




12

tar Mantar, Delhi, 1724.

Corbusier, sketch of oxcart
eel and chassis, 1957.

Corbusier, Parliament
lding (right) and Karl
derick Schinkel, Die Altes
seum, Berlin, 1823-36 (left).

val Chamber, Red Fort, Agra,
h century.

Whatever the precise intentions (and here more research needs to be done) it seems clear enough that the artist's creative method involved the matching of certain pre-forms in his style with phenomena of the outside world, be they in nature or in cultural tradition (figure 11). Through abstraction multiple readings became possible in a sort of hieroglyphic language. Even the entire plans of buildings could embody a multiplicity of ideas. The Parliament's overall organization was a variant on a type-form combining portico, processional route, centralized domical space and fringe of secondary functions. The model of Schinkel's Altes Museum has been suggested and this seems feasible so long as it is not assumed that the example was imitated directly (figure 12). Probably it is more correct to say that Le Corbusier grasped a hierarchical order suggested by the program which made the portico/dome formula a relevant typological tradition. But he would not have sensed this continuity if he had not approached the institution in a particular way. Just as the acropolis as a whole may be read as an idealization of the balance of powers, so the Parliament plan may be interpreted as an ideogram of the democratic process. The two chambers enter a sort of spatial debate within an egalitarian forum of equal sized supports fringed by a smaller scale bureaucracy and linked to the public plaza by the generous portico which, as in the Altes Museum, may perhaps be read as a descendant of a *stoa*. The portico/dome idea was thus reinterpreted through spatial conceptions descending from Cubism and in a language of elements based on the potentials of reinforced concrete.

It is never quite satisfactory to isolate a single element in an architectural arrangement from its total thought-complex, unless this may serve the purpose of heightening an architect's overall strategy. The portico of the Parliament demonstrates Le Corbusier's general intention of blending together lessons from East and West in a suitable rhetorical form for the main façade. Where the superficial revivalist might have attempted a literal transposition, Le Corbusier tried to probe certain generating ideas and functional necessities of porticoes. His piers were scarcely Classical in character, but they did supply a sort of grand order for the building's frontispiece, and did supply a strong directionality while mediating between walls, *brises-soleil* and columns. Similarly his "entablature" had no dir Classical allusion, but it did nonethele have an anthropomorphic character fr which, arguably, Classicism in the first stance sprang. In turn the element provided shelter and shade while acting a gutter, and harmonizing with the cresc leitmotif. The shape was well suited to gesture toward the setting, while, seen head on, it floated as a stable horizont above undercrofts of shadow. From th vantage point the building took on the character of an audience chamber of the type the architect may have seen i the Red Fort in Delhi or at Agra (figure 13). Such state chambers were define by grids of supports open at the edges for cross ventilation and shaded from sun and rain by deep overhangs. Le Corbusier's solution responded to the same issues of formality, ventilation ar shelter, but in his own terminology. He bridged the gap between East and We ancient and modern, by drawing close the generating principles of past form guages. In the process he touched on tain deep correspondences between th Western Classical language and the architectural grammar underlying both Moslem and earlier architectural traditions.

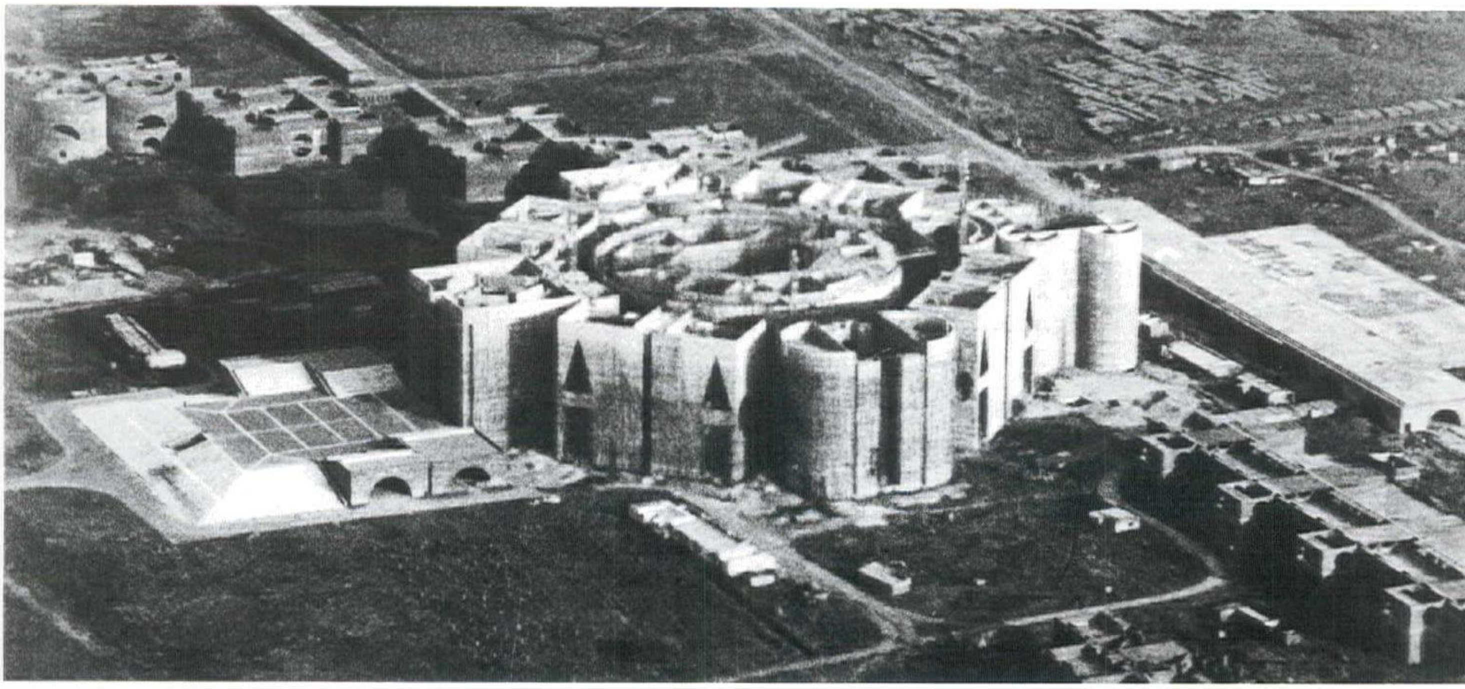
3

Louis Kahn's Parliament Building at Dacca, Bangladesh (1962–70) is also a chaic in character. The building domina its setting by standing on a raised platform as a sort of fortified citadel (figure 14). There is no doubt that it is the dom nant element of the body politic, becau it stands at the culmination of a major axis with the "feet" of the Secretariat a the other, lower end. In turn the anthropomorphic image of the city of pov ers is enhanced by the extending "arm of the various hostels in an array of dia onal buildings growing away from the Parliament. The offices and supporting functions jostle around the main space the building in oblongs and cylinders which mediate geometrically between centric, inward-turning chamber of the sembly, and the diamond format of the perimeter. The same geometrical motif used throughout the complex are intensified and magnified in the Parliament building itself. A rich variation is achie where the mosque breaks free from the governing geometry as it inflects towar Mecca. The primary axis of the scheme a whole links the Parliament to its setting over platforms and changes of level, but the axis of the assembly chamber itself is switched through 90 degrees.

The volumes projecting above the plan carry the intentions into a robust sculptural expression responsive to light and shade. The rough brick and concrete materials made sense in terms of local geographical and labor conditions, but also matched the artist's intentions of creating a building of ancient character. The vast cylinders and oblongs are punctuated by enormous voids that create shaded and well ventilated areas. If Le Corbusier's conception for coping with climate was a parasol, Kahn's was a protective layer of secondary spaces around the main chamber. This was also a way of registering a functional distinction between member's offices, press-rooms, (the "servant" areas) and the main "served" assembly. In Kahn's mind, no doubt, the gaunt and weathered cylinders, and complex spatial transitions recalled the Roman Baths he so admired: This was the cult of the ruin, brought in to endorse an archaic vision of monumentality (figure 15).

Classical inspirations were so embedded in Kahn's mind that it becomes difficult to single out particular sources. The Dacca Parliament is a case of a building issuing from a family of forms with roots in a number of different phases of the past. The anthropomorphism of the capitol as a whole, the suggestion of a body with a central spine and extending arms, may be seen as a long range reinterpretation of a schematic attitude descending from Palladio's grandest villa ideas with their centralized structures at the peak of a hierarchy, their wings and their judicious use of axes. There can be little doubt that Kahn particularly revered one major descendant of this type, namely Jefferson's University of Virginia, a complex he seems to have admired for its clear hierarchy, its variations of function and meaning within a common system, and its reinterpretation of the Pantheon at the "head" of the scheme. Kahn's instinct for bold and sublime geometries was nurtured by Piranesi's reconstructions of antiquity, while his feeling for abstraction was reinforced by those most stripped of Neo-classicists, Boullée and Ledoux. The planning strategy which sought distinctions between served and serving areas descended from Guadet's Beaux-Art theories, *"surfaces utiles"* and *"circulation"*, and perhaps from particular examples like Garnier's Paris Opera of 1864 (figure 16). It is interesting to compare the plan of this building to that of Dacca (figure 17). There is a strong affinity in the ceremonial use of space, in the variation of structural density and the use of circular and nichelike areas, and even in the way that the mosque is articulated, recalling loosely the "deviant" circular ramps to one side of the Opera. Finally, of course, Kahn's vision of Classicism was enhanced by *Vers une architecture* an anti-Beaux-Arts tract, which attempted to probe the underlying plastic values of antiquity and which contrasted the giant brick surfaces of the Baths and the Pantheon with the late baroque "horrors" of decadent Rome.

If these inspirations were present in Kahn's architectural system, they were thoroughly absorbed long before he went to Bangladesh. But like Le Corbusier, Kahn was also ready and willing to learn from Eastern architectural traditions on the Indian subcontinent. There is little hard evidence concerning his travels or his specific enthusiasms, but Kahn was concerned to avoid creating an entirely Western import. On the basis of his numerous studies for Dacca, one guesses that the integration of gardens, water troughs, processional ways and mandala-like plans in Mogul garden design may have made a deep impression. Moreover, where Le Corbusier's concrete skeleton system of architecture allied itself naturally with the post-and-lintel construction of Fathepur Sikri, Kahn's penchant for solid masonry cut into by figural openings, for centralized geometries and for axial planning must surely have drawn him to the central tomb structures on platforms close to Delhi and Agra (e.g. the tomb of Hummayum or the Taj Mahal). Islamic tomb buildings (figure 18) made a virtual obsession out of the elegant reconciliation of circular, polygonal and square geometries, and one guesses that such lessons were not lost on Kahn. I suspect that he knew the Jantar Mantar (figure 19), especially as the Court of Ablutions preceding the mosque at Dacca seems almost to have been lifted straight from that source, while the President's Platform has an uncanny resemblance to the vast stepped platform preceding the frontispiece of the Jami Masjid in Delhi. But Kahn's grasp of buildings he admired went far deeper than particular elements or surface effects. The Mogul tradition held out numerous brilliant examples in



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14
Louis I. Kahn, Parliament Building, Dacca Bangladesh, 1962-70, aerial view. The Presidential platform is to the left, the mosque to the right.

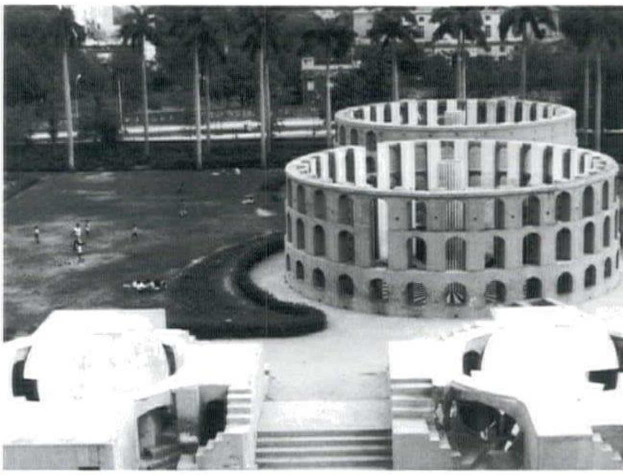
15.
Ruins on the Palatine, Rome.

16
Charles Garnier, Opéra, Paris, 1866-73, plan.

17
Louis Kahn, Parliament Building, Dacca, sketch.

18
Plan of the tomb of Muhamud at Bijapur, illustrating the transformation from circular to square geometry.

19
Jantar Mantar, Delhi.



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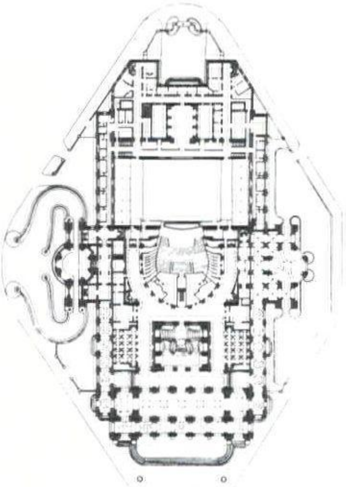

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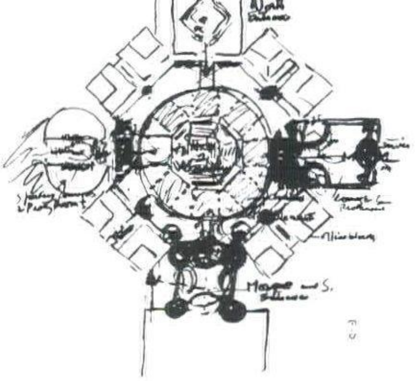

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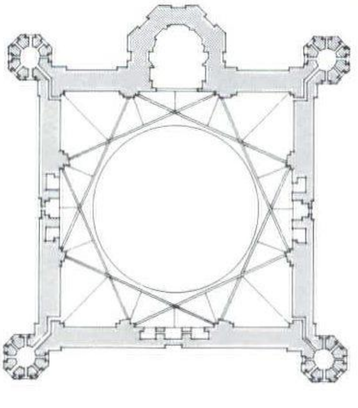

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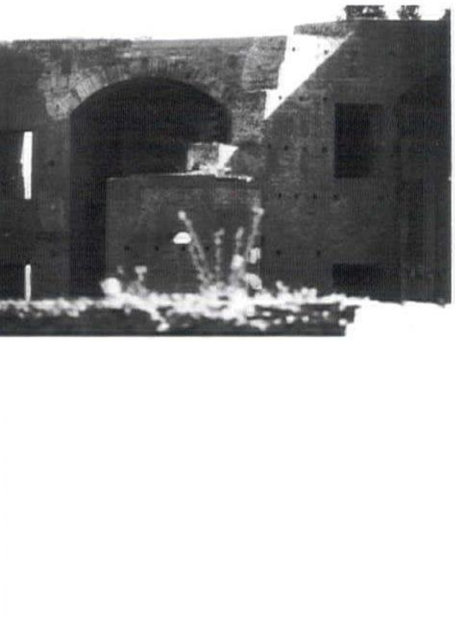
the handling of primary and secondary axes, level changes, diagonal perceptions of structure, and the linking of one formal theme to another. What Hindu temple complexes he may have known is uncertain, but in any of the monumental complexes of India, Kahn could have sensed an animating character, a material expression of the world of the spirit, in accord with his own search for fundamentals. Whether the particular inspirations for his centralized form belonged more to Eastern or to Western traditions is not clear. The fact is that he found common denominators between the two. But his preexisting obsessions, and his formal schemata, naturally led him to seek out different underlying correspondences than those which had attracted Le Corbusier.



What stopped Kahn from merely producing a skin-deep Orientalism, or an overblown formalism, was the foundation of an underlying philosophy and a set of symbolic forms linked to the idealization of the social order. He believed it was a primary task of the architect to understand the nature of the institution requiring a building. This was an issue he handled with considerable mysticism and some obfuscation, for basically he felt that forms of social grouping stemmed from a limited number of archetypes. It was the job of a designer to see beyond the surface of a building program to this deeper identity and then to intuit an appropriate generating "idea" (which he referred to Neo-Platonically as its "form") before proceeding to the full realization of the idea in visual arrangement (the stage that he called "design"). Kahn's primitivism involved the conceit of a sort of first building for each type of institution.

> That is why it is good to go back to the beginning because the beginning of any established activity of man is its most wonderful moment. For in it lies all its spirit and resourcefulness from which we must constantly draw our inspirations of present needs.[4]

The search for an appropriate symbolic form for the institution "parliament" emerges if one examines Kahn's doodles and sketches. Evidently he conceived of a parliament as a sort of centralized assembly seeking a unified course of action. In fact this made it a close relative of synagogues and religious spaces in his own private typology of forms. But while the circle was the idealized shape of this sort of assembly, the actualities of parliamentary debate were best handled by a variant on an amphitheater. The slightly uncomfortable relationship of the two shapes is sensed in the plan and illustrates perfectly the tension between an idealized type (the "form") and its actual realization (the "design") whose role is "to adjust to the circumstantial."[5]

Kahn's method of design emphasizes to an extreme what tends to happen in most design processes: An architect's preexisting solutions and style influence greatly the way a new problem is conceived and solved. Time and again in his buildings and schemes, Kahn resorted to square, diamond or circular forms in plan. Time and again he emphasized the distinction between served and serving areas. Time and again he sought to articulate the separation of private rooms from public spaces–the latter often expressed as atria or covered courts of assembly. Essentially, the Kahnian "genotype" was a centralized space surrounded by a fringe of smaller spaces embedded in a thickened structure, and entered on a corner or a symmetrically placed axis. Not surprisingly, the Parliament was a sort of ultimate expression of this formula. While it may be possible to trace the roots of this arrangement to various precedents which mattered to the architect (e.g. the Unity Temple by Wright or various ideal schemes by Boullée), this does not explain the impulses in Kahn's mind that were so satisfied by the shape. Evidently squares, diamonds and circles were so many private cyphers to him: The symmetrical, centralized form was a personalized mandala of a kind.

This is why the sketches are so revealing, for they suggest the way in which Kahn sought to bring into equilibrium his own psychic impulses toward an intuitive harmony, with the symbolic demands of a major state building. Like Le Corbusier, he possessed a language of symbolic forms pregnant with expressive possibilities yet rooted in certain deeply engrained ideals concerning the integration of society with the natural order. His private mandala was able to resonate with a long tradition of centralized symbolism for state buildings. Abstraction became the device through which a virtual archetype was unearthed, awakened and revitalized. His Parliament was an image of wholeness and balance, a theater of the world, a metaphorical wheel with its axis in the

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n in Scully, *Louis I. Kahn*, p. 121.

is I. Kahn, "Form and Design" (1960), cited as
ructure and Form" in Vincent Scully, *Louis I. Kahn*
w York: Braziller, 1962) p. 115.

centre and its spokes radiating to society. Like Le Corbusier's Parliament, Kahn's was an emblem rich in ideas, a cosmogram nourished by traditions without, and by a private myth within. By these means, the buildings achieved their prodigious authenticity.

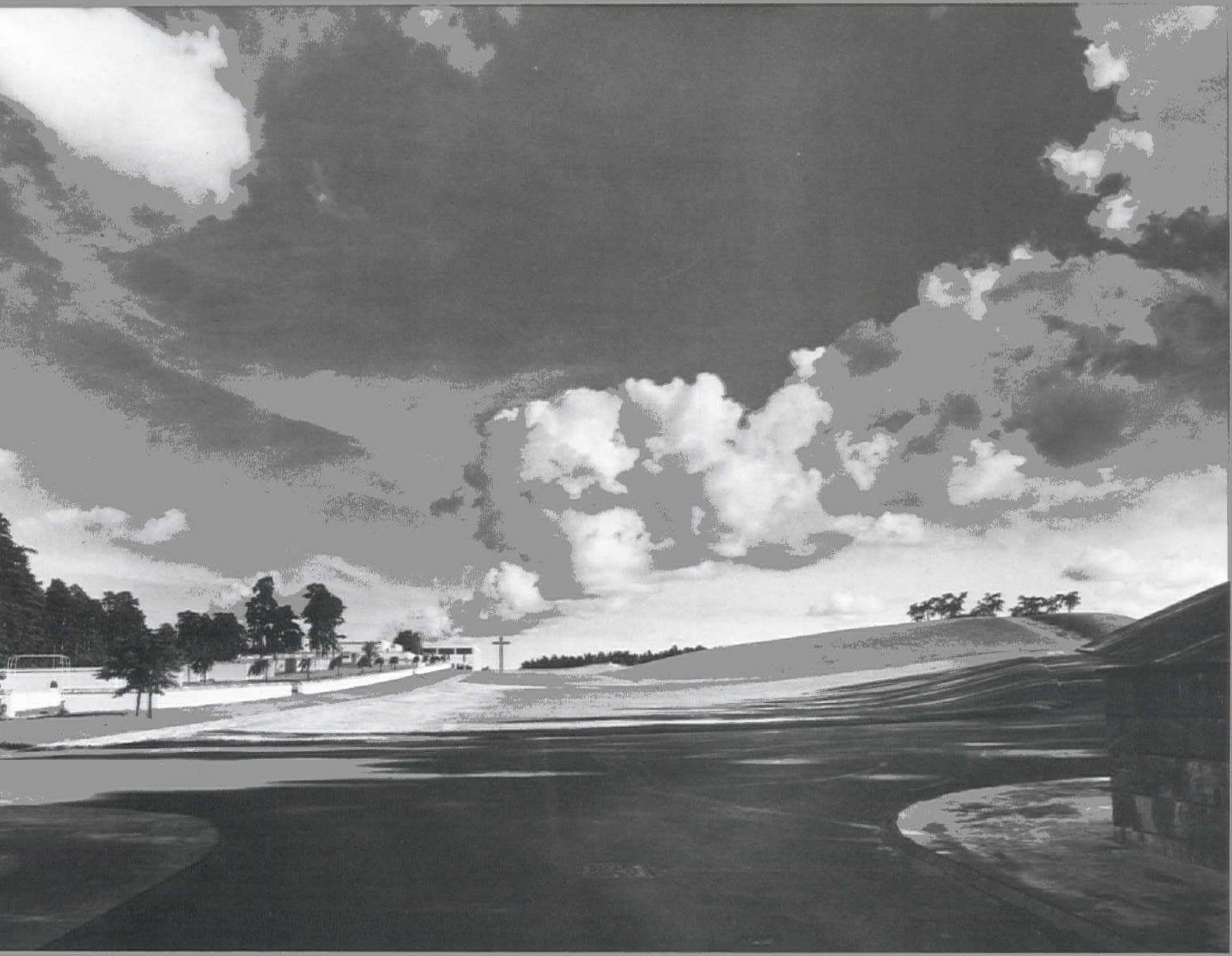
4

This essay began with some observations about the distortions of recent propaganda, especially with regard to the role of precedent in modern design. It should be clear that the reorientation of architecture and the other arts which began toward the beginning of this century implied less a rejection of the past than a profoundly new reorientation toward it involving a far greater degree of abstraction. At its worst this degenerated into banal reductivism; at its best it allowed, and continues to allow, a sort of expressive compression and a research in sensibility into the very basis of the architectural languages of the past. The outstanding works of the modern tradition – among them the two discussed here – have been rooted in this transformation and have rested on new perceptions of age-old lessons. They recall Palladio's claim for Bramante – that he did not copy the ancients, but understood their spirit and their motivating principles.

Alongside buildings of the expressive power and depth of meaning of Le Corbusier's and Kahn's Parliaments, th revivalist exercises that have had so much press coverage in recent years seem flimsy indeed. They remind one a weak revival is really no more intere ing, in the long run, than a weak contin tion of a pre-existing norm. Stylistic clothing matters very little if it does no contain a substantial body.

The architect of the moment who seek present in the past, or a past in the pre ent, had better seek an alliance with th outstanding works of the modern tradi tion. For, as well as giving hints relevan to the technologies and societies of the modern world, these buildings also pro vide links to the vital springs of traditio If such lessons are to bear a worthwhil fruit, the artist must possess an authen style, encapsulating a mythical view of society, a formal system appropriate to the guiding idea, and an intuitive sense order in both tradition and nature: This much was known before the first pyramids were even conceived.

Landscape and Architecture: the Work of Erik Gunnar Asplund



splund with Sigurd
entz, Woodland
ery, 1935-40,
torium and landscape
emetery entrance.

Perspecta: The Yale Architectural Journal, Volume 20 0079-0958/83/20195-020$3.00/0

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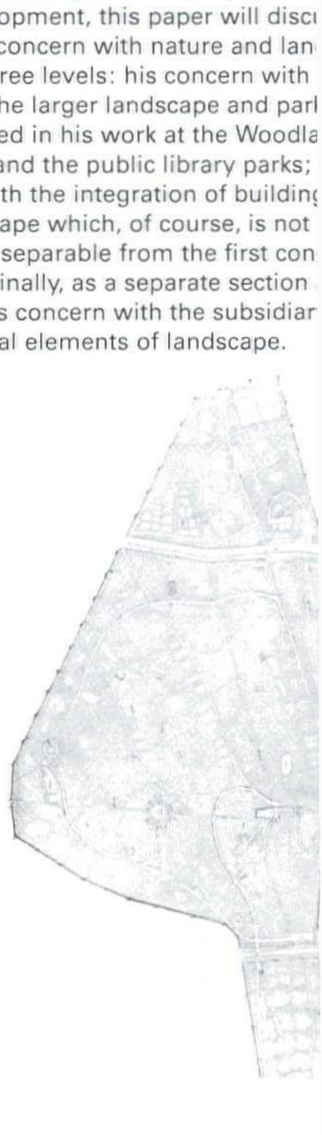
Landscape was not on the agenda of the Modern Movement, except as a sanitary or recreational concern, as a greenbelt or "tapis verte." The aesthetic and symbolic dimension, which had traditionally been a central concern of garden and landscape design, was essentially discarded by the Modern Movement in favor of utilitarian concerns. This largely accounts for the fact that landscape architecture in modern times has found itself in a subordinate position to architecture and that a vital modern garden or landscape tradition can hardly be said to exist. The few good examples in existence, the work of Barragán or Burle Marx, are in fact the exceptions that prove the rule.

In the work of both Le Corbusier and Mies van der Rohe, attention to landscape design remains most often schematic, though Le Corbusier shows a classicist's concern and sensitivity to the siting of his buildings in the macrolandscape. While early Mies integrated house with landscape via walls extending out into nature as well as by the use of extensive areas of glass, late Mies used plantings and trees as a subordinate system for extending the all pervasive grid-like order created by his buildings. Frank Lloyd Wright, drawing on English picturesque and Japanese traditions of sensitivity to the melding of building and landscape, has perhaps been the chief modernist model for integrating architecture with the natural landscape. But Wright's, Le Corbusier's and the Modern Movement's bias in general was for the natural landscape. Underlying this bias was the Modern Movement's urge to discard history and begin at the beginning. The traditional garden and park were seen as artificial, products of an obsolete culture which was no longer relevant to the needs of a utilitarian era. The rare design by Le Corbusier or Mies that can be seen as anything near a prototypical modern garden–the Beistegui roof terrace, or the courtyards of the Barcelona Pavilion–have been internalized in the building, and in a sense privatized. Or, as in the case of the roof playground of the Unité d'Habitation, they have been given an apparent utilitarian purpose.

Of the major twentieth century architects who were part of the Modern Movement, Erik Gunnar Asplund offers us some profound lessons in landscape architecture, and in the relating of buildings and landscape. The design of the landscape, the integration of building and land, and the design of particular architectonic elements in the landscape, both in untouched nature and in urban settings, preoccupied him throughout his caree For Asplund, landscape does not assu the passive or secondary role it does e where in the Modern Movement, and rather than make a revolutionary break with the past, Asplund sought to rene and revitalize landscape traditions. Asplund's landscape sensibility receiv its first major challenge with the comp tion for the Woodland Cemetery that h did together with Sigurd Lewerentz in 1915. Though that project was to be hi (and Lewerentz's) central landscape achievement, and was to preoccupy hi over his entire career, his landscape ab ities manifested themselves elsewhere subtly brilliant ways as in the designs the parks surrounding the public librar the siting of his summer house, and th plan for the paving of Gustaf Adolf's square in Gothenburg.

While looking at each of the projects s arately, and giving a brief background their development, this paper will disc Asplund's concern with nature and lan scape at three levels: his concern with design of the larger landscape and par as evidenced in his work at the Woodl Cemetery and the public library parks; concern with the integration of buildin and landscape which, of course, is not together inseparable from the first con cern; and finally, as a separate section the end, his concern with the subsidiar architectural elements of landscape.



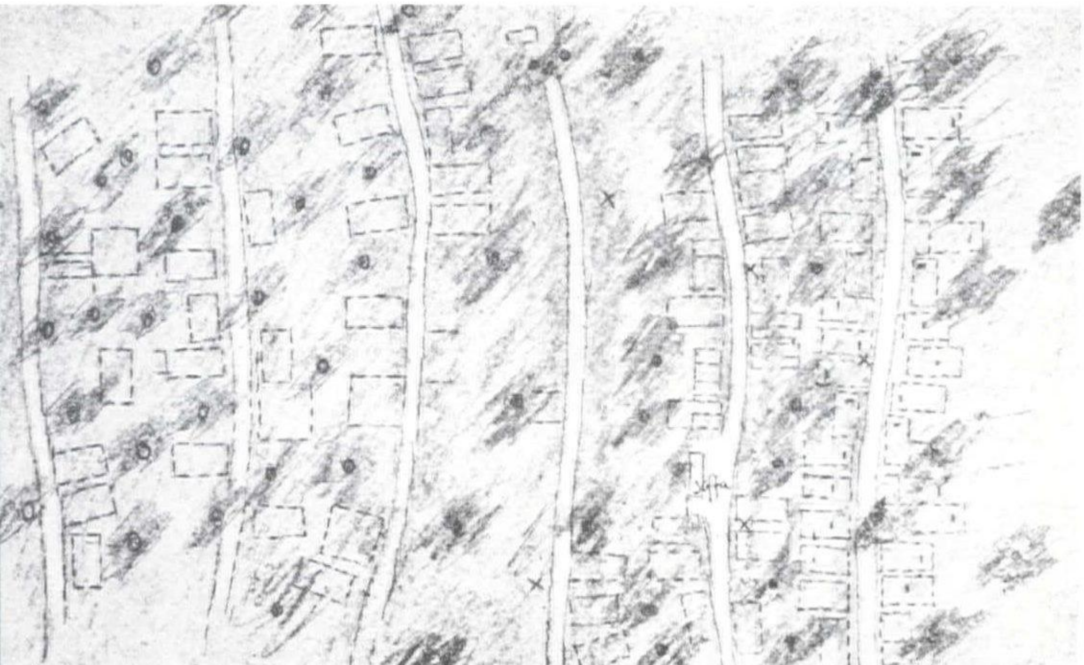
1

Woodland Cemetery

Asplund's approach to landscape and the relation of building and landscape is best exemplified in the extensive work with the design of the Woodland Cemetery that for over twenty-five years he and Sigurd Lewerentz carried out, as well as in the two individual buildings, the chapel and the crematorium he designed by himself for the grounds. Asplund and Lewerentz's competition entry, which was chosen over fifty-five other entries, clearly stands out in its intense romantic naturalism. The winning scheme was the only one that turned the existing, essentially untouched Nordic forest on the site into the dominant experience. While civilized and well-groomed English parks mixed with *allées* on axis, and informal and formal open areas were features typical of the other competitors, Asplund and Lewerentz evoked a much more primitive imagery. The intervention of footpaths, which meandered freely through the forest, was minimal. Graves were freely and informally to be laid among the existing wild forest. The interventions they allowed themselves, such as the moulding of the two old gravel pits and the ordering of the area surrounding the main chapel, became all the more charged because they existed hidden within and in contrast to the raw and untouched forest surrounding them. This contrast is well captured in their as yet quite romantic competition sketches.

It is the evocation of raw Nordic wilderness that constitutes a radical departure in landscape architecture, not to speak of cemetery layout at this time. Asplund and Lewerentz's sources were not high architecture or landscape planning, but rather medieval and ancient Nordic vernacular burial archetypes. Freely mixed in were elements from the Mediterranean and antiquity whose effects are again heightened by becoming isolated elements in the Nordic forest.

But in terms of its organization, Asplund and Lewerentz's scheme clearly grew out of the English romantic garden tradition, which in fact had flourished in Sweden since the days of Frederik Magnus Piper, the designer of both the English gardens at Drottningholm and at Haga.[1] The interest in ancient Nordic burial archetypes also had precedents. Erik Dahlberg's monumental *Suecia Antiqua et Hodierna* compiled at the end of the seventeenth century featured etchings of many of the most spectacular ancient burial and ritual sites of the country. The runic hill in the gardens of Rosersberg, probably conceived by Olof Rudback, Professor of Botany at Upsala, for Axel Oxienstierna dates from the mid-seventeenth century.[2] Piper himself was to evoke similar primitive imagery in his monument hill at Drottningholm. But the runic hill at Rosersberg existed at the periphery of a formal French garden, while monument hill was placed in the well-groomed and most civi-

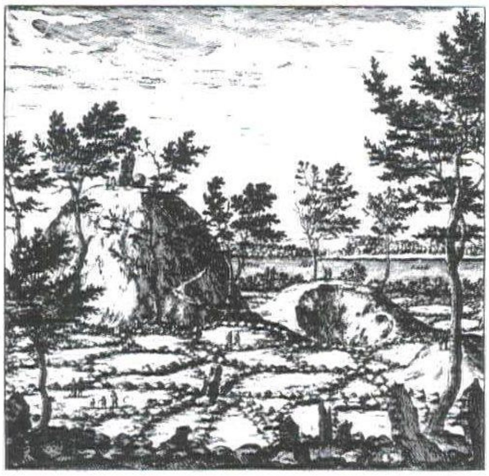


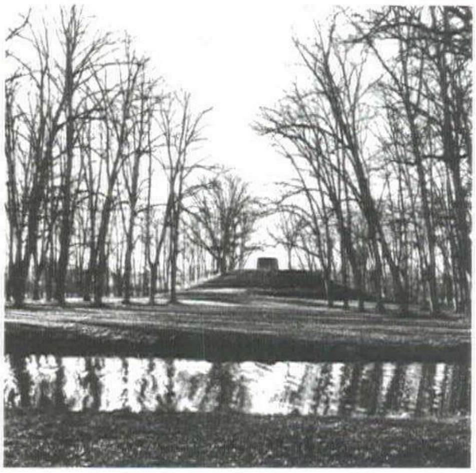
1
Competition entry, Woodland Cemetery, 1915 site plan.

2
Competition entry, Woodland Cemetery, sketch plan showing layout of graves.

Frederik Magnus Piper and the Landscape den, Exhibition Catalog, (Stockholm: The Royal demy of Fine Arts, 1981).

nus antedates the Druids cell at Stourhead by 100 rs, which itself presages one of the distinct motifs he Romantic garden landscape.





3
Burial mound at Inhinge in Smaland, from Dahlberg's, *Suecia Antiqua et Hodierna.*

4
Frederick Magnus Piper, Monument Hill at Drottningholm.

lized English garden at Drottningholm. In each case the primitive landscape element had been isolated and removed from its original context and placed in an artificial one and thus, in a sense, tamed. In being out of character with the larger surrounding context, it lost some of its aura and tended to become a mere curiosity.

Thus it is the shift to a more Nordic, more primitive and untamed context that makes Asplund and Lewerentz's scheme new, and the fact that the landscape was a cemetery and not a royal pleasure park lent it authenticity. The architects found a receptive audience in the jury, whose key members were Ragnar Ostberg and Lars Israel Wahlman, two of Sweden's leading national romantic architects. The interest in the raw Nordic landscape, while a new phenomenon in landscape architecture and relatively new among architects, was widespread in the national romantic culture of Sweden from the 1890s onward. The writings and poetry of Verner von Heidenstam celebrate the Nordic landscape as well as the primitive vernacular building culture that was an integral part of it. Heidenstam, who saw the intimate and inseparable connection between building and landscape, also spoke of the soul of, and the emotional content of, landscapes and buildings. These concepts were to be central to the idea of the cemetery.

Among artists the Nordic landscape became the focus of interest for a group of painters, contemporaries of Heidenstam who, having absorbed the realistic techniques of *pleinaire* painting in Paris, reacted against the city's cosmopolitan culture and returned to Sweden to rediscover their native land.[3] Rather than being concerned with realistic detail, a characteristic of their Parisian schooling, they sought to capture the mood of the landscape, and like Heidenstam, its emotional content. As such, their work, along with their Nordic contemporary, Edvard Munch,[4] may be seen as a revitalization the northern romantic tradition in painting which had an important source in the work of Caspar David Friedrich (1774–1840), the German romantic painter and contemporary of Goethe an Schinkel. Born in Griefwald on the Baltic coast (in his youth still Swedish Pomerania) and educated as an artist in Copenhagen, Friedrich had close Scandinavian connections. Through his frien ship with J. C. Dahl and others, Friedrich was to be an important influence on his Scandinavian contemporaries. While Friedrich was not rediscovered in Germany until 1906, he was apparently rediscovered for Scandinavian artists muc earlier through the writings of the Norwegian art critic and historian, Andreas Aubert, who discussed Friedrich extensively in two articles on J. C. Dahl in 189 and 1894. Thus such Swedish painters a Prince Eugen and Karl Nordström possibly drew direct inspiration from Friedric resorting to a kind of *répétition différent* of the same themes that had animated the culture almost a century earlier.

Friedrich brought into conscious usage for the first time in painting certain arch typal Nordic landscape images: the dee evergreen forest with graves set in the wilderness, the church with surroundin churchyard, and the dolmen and earth mound on the heath surrounded by oak and the wayfarer's cross. But rather than being naturalistic documentations, Friedrich's landscapes, in their intensely concentrated imagery and often elementary symmetrical compositions, took on transcendental and symbolic dimensions.

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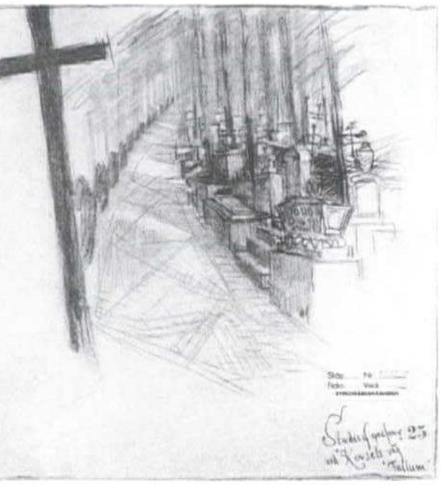
[3] The return to the land and the interest in more primitive cultures was widespread as witnessed for instance by Gauguin's move to Tahiti. For an excellent discussion of the Scandinavian aspect of this movement, see *Northern Light, Realism and Symbolism in Scandinavian Painting, 1880–1910*, the catalog of an exhibition of the same title held at the Corcoran Gallery and the Brooklyn Museum in the fall of 1982.

[4] For an excellent discussion of the Northern Romantic tradition in painting, see Robert Rosenblum, *Modern Painting and the Northern Romantic Tradition*, (New York: Harper and Row, 1975).

In the images evoked, the wayfarer's cross, graves and chapels in the wild overgrown forest, and in the associations to an earlier and more primitive age of faith, Asplund and Lewerentz's competition scheme was close to Friedrich, yet still perhaps overly romantic, lacking the concentration of imagery and paring down to essentials that characterizes Friedrich's work as well as the best work of Prince Eugen. However, their scheme would evolve.

While the scheme draws on Pompeii's Via Sepulchra and other elements from antiquity, it is the primitive Nordic landscape and archaic Nordic burial archetypes that dominate. Thus Asplund and Lewerentz's scheme also stands in contrast to a popular motif in continental European cemetery design at the turn of the century which drew inspiration from the symbolist paintings of Arnold Böcklin, especially his famous "Island of the Dead." Böcklin's landscapes, with their classical fragments



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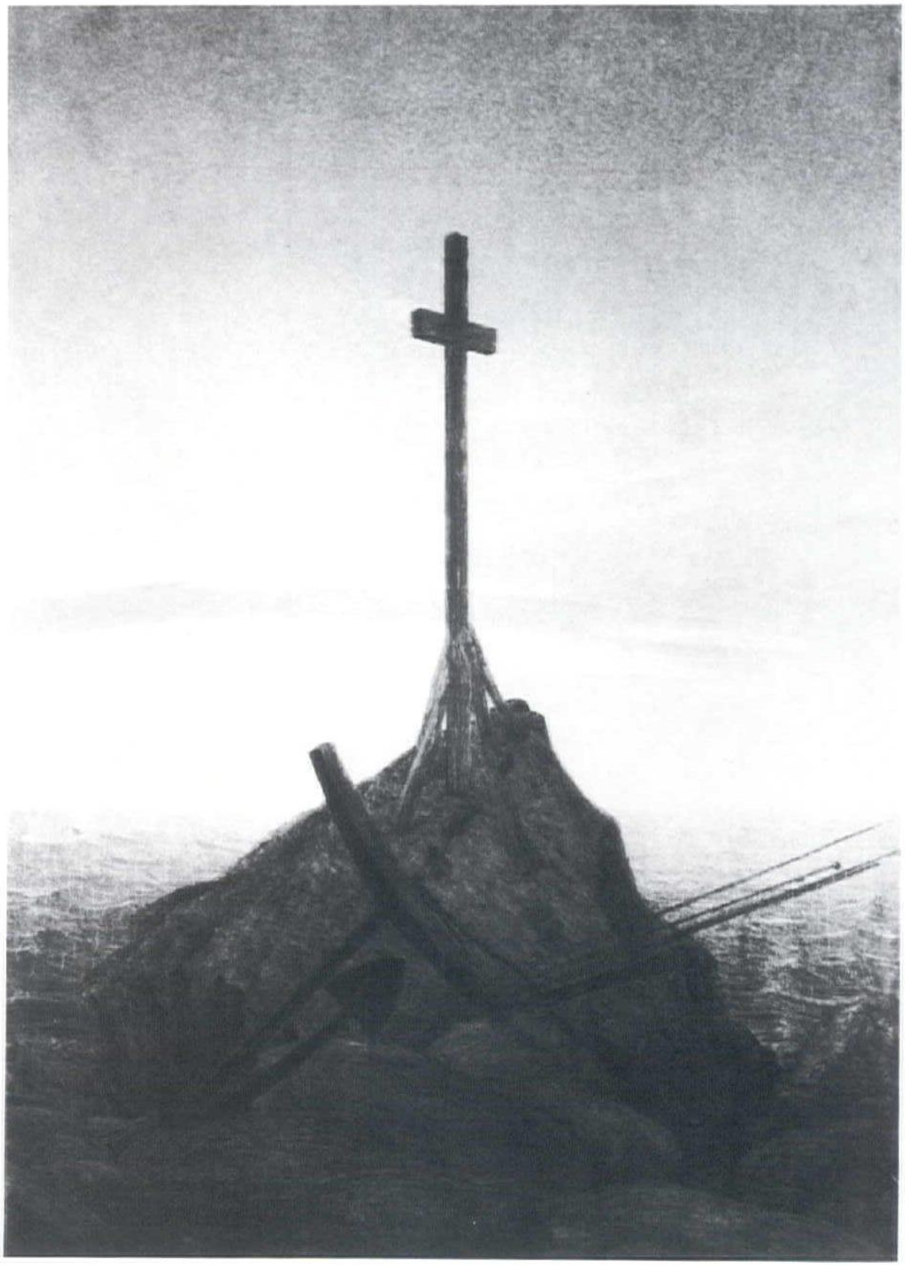
Competition entry, Woodland Cemetery, perspective of "The Way of the Cross".



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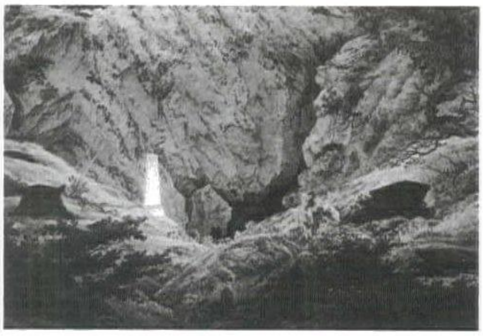
Caspar David Friedrich, "The Cross on the Baltic", 1815.



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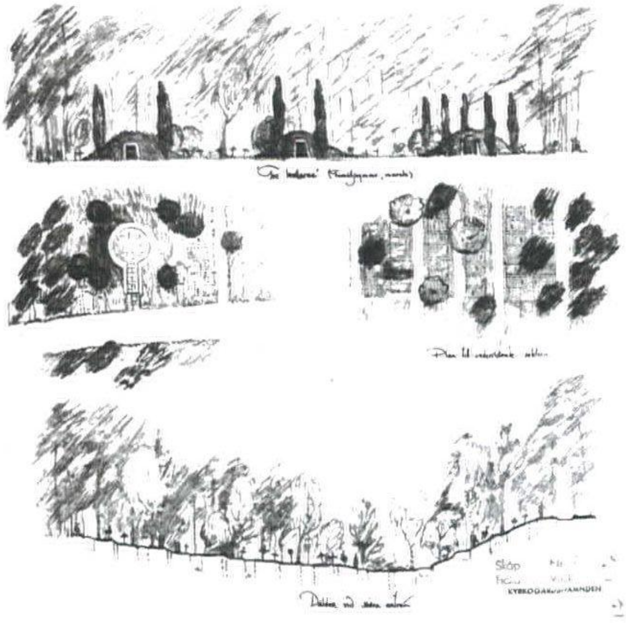

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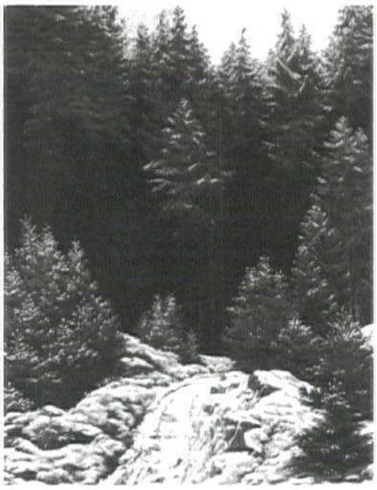

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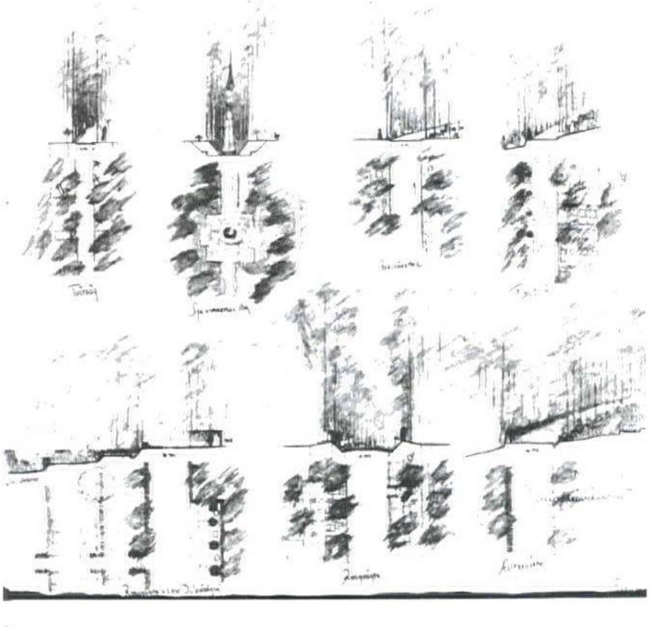

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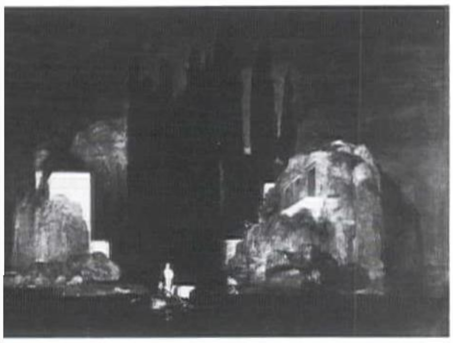
8
Caspar David Friedrich, "Old Heroes' Graves", 1812.

10
Caspar David Friedrich, "Early Snow", 1828.

7
Competition entry, Woodland Cemetery, above: "The Three Mounds", below: dell at south entrance.

9
Competition entry, Woodland Cemetery, path and road profiles.



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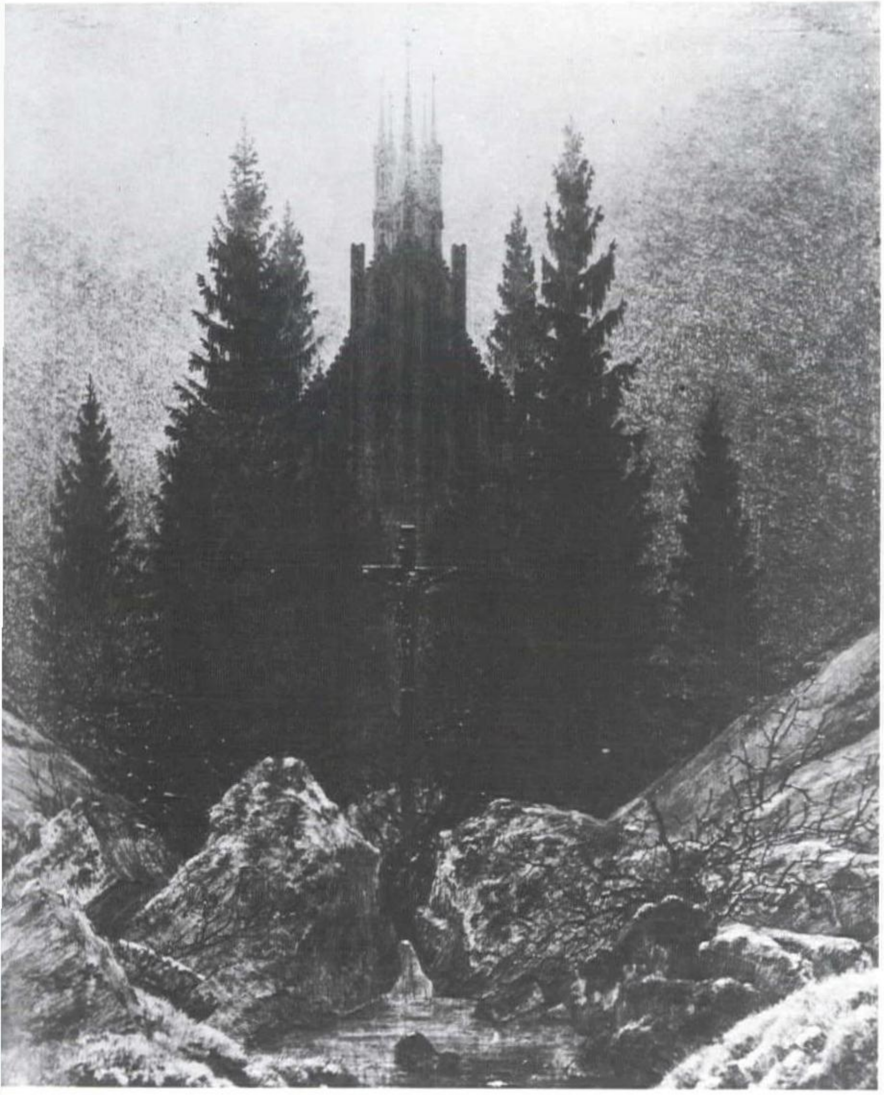
Arnold Bocklin, "Island of the Dead", 1880.

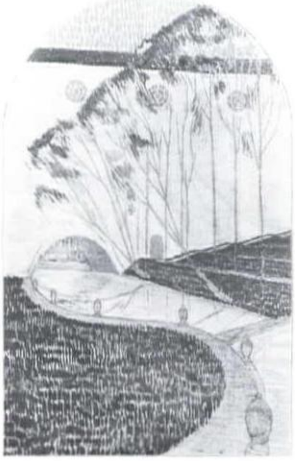
and their enigmatic figures, evoke a sense of decadence and an undertone of the sinister. That the jury preferred the northern romantic scheme of Asplund and Lewerentz to one pursuing Böcklinesque motifs, is probably a good indication of the different stage in cultural time Scandinavia found itself vis-á-vis the rest of Europe.

It must be stressed that Lewerentz's contribution to the scheme was no doubt as important as Asplund's, though it is impossible to say who was responsible for what. We do know that Lewerentz and Torsten Stubelius's proposed crematorium for Helsingborg served as the model for the chapel. And a study of the Helsingborg proposal shows Lewerentz to be a consummate landscape artist with a similar delicate touch that is discernible in the cemetery competition entry. Brilliant in the Helsingborg proposal is the handling of the stream passing through the site, which by being directed through a vault under the chapel evokes the Cremation Movement's coupling of death and rebirth. On one side the stream flowing into the vault recalls the river flowing to Hades, the mythological realm of the dead; on the other side, emerging out of the vault and breaking into a cascading waterfall, the stream evokes rebirth and life.

The Woodland Chapel

The Woodland Chapel, designed and built in the years 1918–20, represents both an intensification and a formal disciplining of the romantic naturalism of the competition scheme. The increasing severity and discipline reflect Asplund's developing in-





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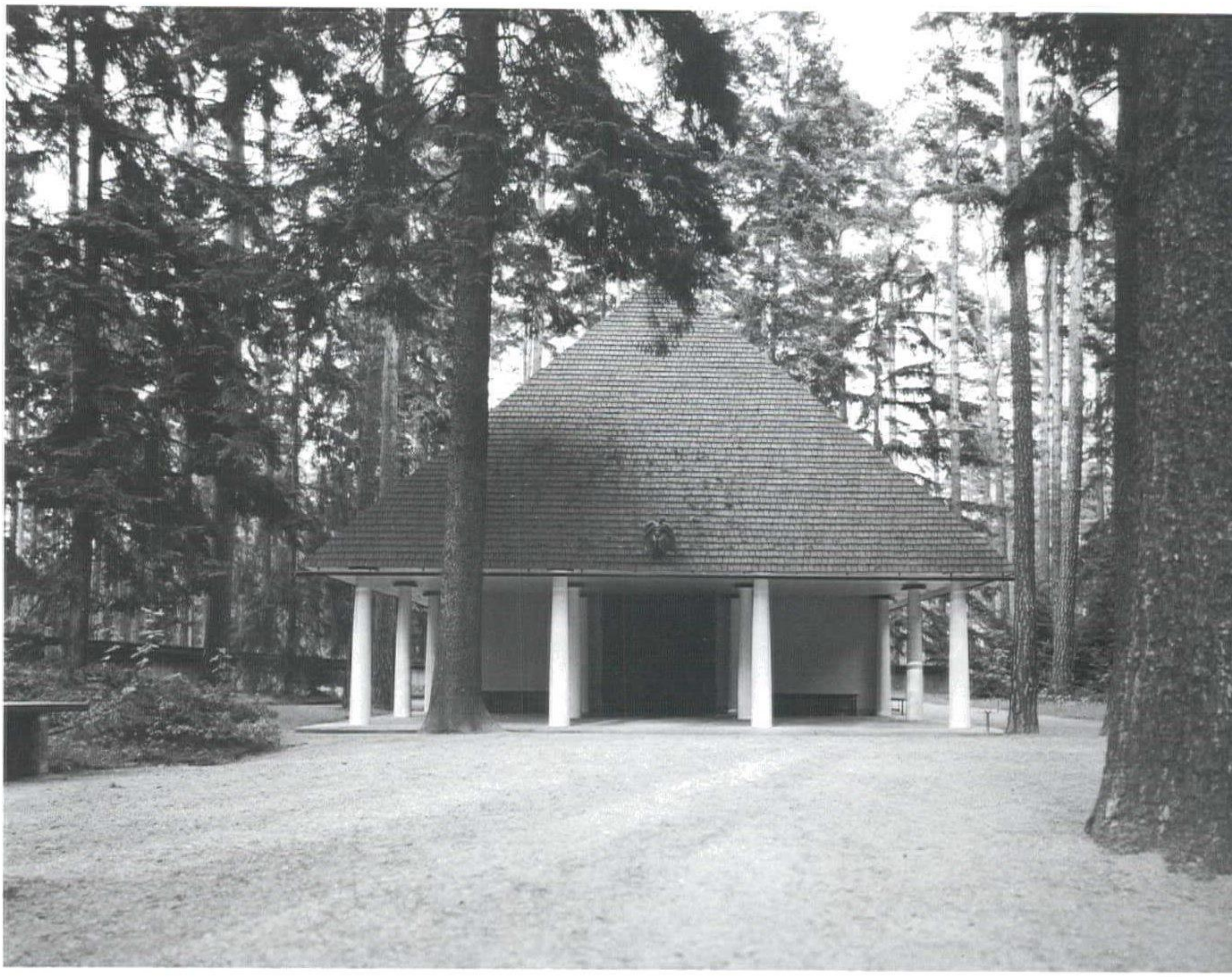
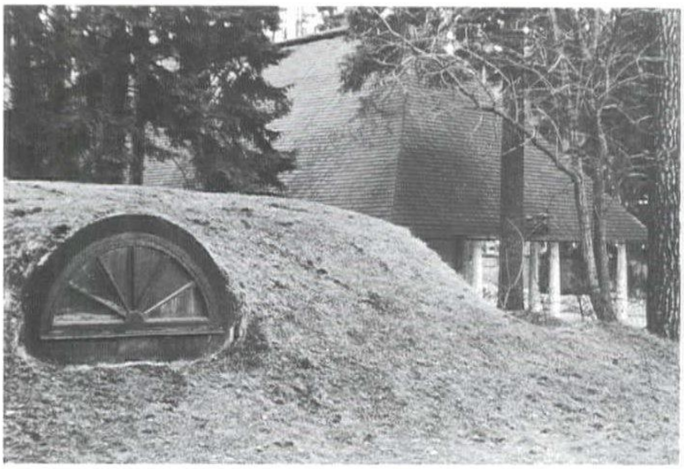
12
Sigurd Lewerentz and Torsten Stubbelius, Project for a Crematorium in Helsingborg.

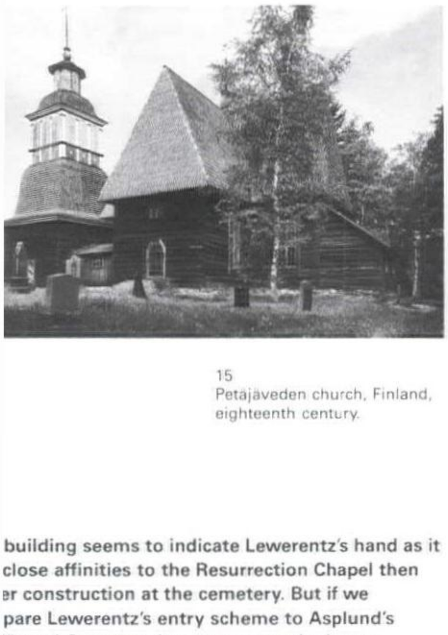
13
Caspar David Friedrich, "Cross in the Mountains", 1813.



14
E. G. Asplund, Woodland Chapel, 1918-20, front.



16
Woodland Chapel, view of earth vault.



15
Petäjäveden church, Finland, eighteenth century.

terest in classicism and classical composition methods. But the point of departure for the chapel, which is set in a grove of mature fir trees surrounded by a wall, is an indigenous vernacular landscape/building type, the country church surrounded by a walled graveyard overgrown with fir trees. Thus, while the plan and major elements are classical, Asplund retains important roots in the vernacular.

Building and surrounding landscape are conceived as an integral whole. One cannot separate the chapel from the carefully chosen setting, or it would lose much of its meaning and resonance. Memory of an archetype and its emotional resonance is of key importance here. But Asplund abstracts, transforms, and intensifies the experience of the original. Not only does the black shingle wooden roof evoke the vernacular country church, but by a subtle shift in its proportioning and by isolating it aloft on Tuscan columns, it becomes, seen frontally, a primitive wooden pyramid levitated amid the fir trees. An example of architecture mimicking nature, the pyramidal roof echoes the slope of the tree branches while the columns echo the trunks.

In front of the chapel is a vault sunken halfway into the ground and covered with earth containing the caskets to be buried that day. It strongly reinforces the death symbolism of the composition, an often recurrent element in the traditional country churchyard. But the earth vault also reinforces the primitive quality of the design. Both the earth vault and the chapel represent basic archetypal human constructs. Contrasted to one another, they also represent a basic duality. The amorphous organic earth shape of the mound lies in contrast to the sharp Platonic geometry of the pyramidal roof. The pyramid floats aloft among the trees in contrast to the rootedness in the earth of the mound. Matter is contrasted to spirit, and in the most elementary and abstract way the Christian notion of the separation of body and soul at death is evoked.

In the Skövde Crematorium project of 1938 (finished after his death) Asplund develops an interesting variation on the landscape scenario of the Woodland Chapel. The two chapels are similar in terms of size and shape. But Skövde is sited on open high ground evoking again a historic building/landscape prototype, the small stone church on the open heath, surrounded by burial mounds. The stone walls of the octagonal chapel and the steep black wooden roof pulled in behind the roof line, complement the earth mounds in their archaic primitiveness. The driveway, which takes one around the complex, provides a series of varied juxtapositions of mounds and chapel.

The Evolution of the Cemetery Landscape

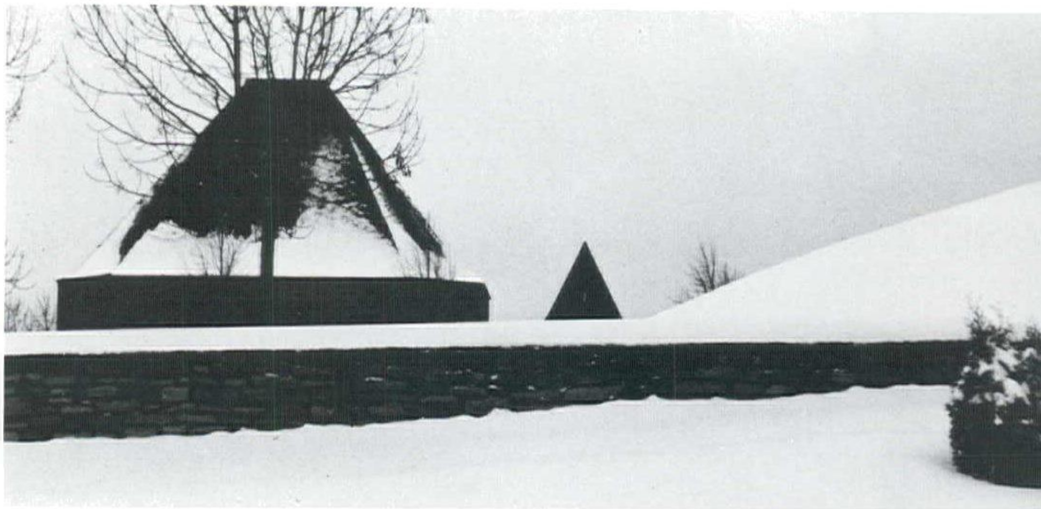
Initially, Asplund and Lewerentz had planned to collaborate on the design of the crematorium, but when the time came to prepare the final designs, the building committee decided to give the job to Asplund alone. However, if the crematorium took shape from 1935 onward under Asplund's aegis alone, many of the crucial decisions which contributed to its siting were made earlier and involved the joint contribution of both architects. The moulding of the surrounding landscape at the front of the cemetery continued to be the responsibility of both architects and had in fact nearly achieved its final form in a joint project of 1932.

The evolution of the form of the main chapel and surrounding landscape seems to parallel the stylistic development of Asplund and Lewerentz's architecture. In a plan dating from 1922–23, the architects moved the chapel from its picturesque location on the crest of the ridge, as suggested in the competition scheme, and placed it on axis with the entrance in strict classical fashion. This project was done in conjunction with Lewerentz's design for the neoclassical semicircular walled entry into the cemetery.[5] The proposed chapel was a classical temple form with a rather innovative loggia passing through the building. Like Lewerentz's Resurrection Chapel, the proposed chapel allowed itself considerable freedom with the temple form.

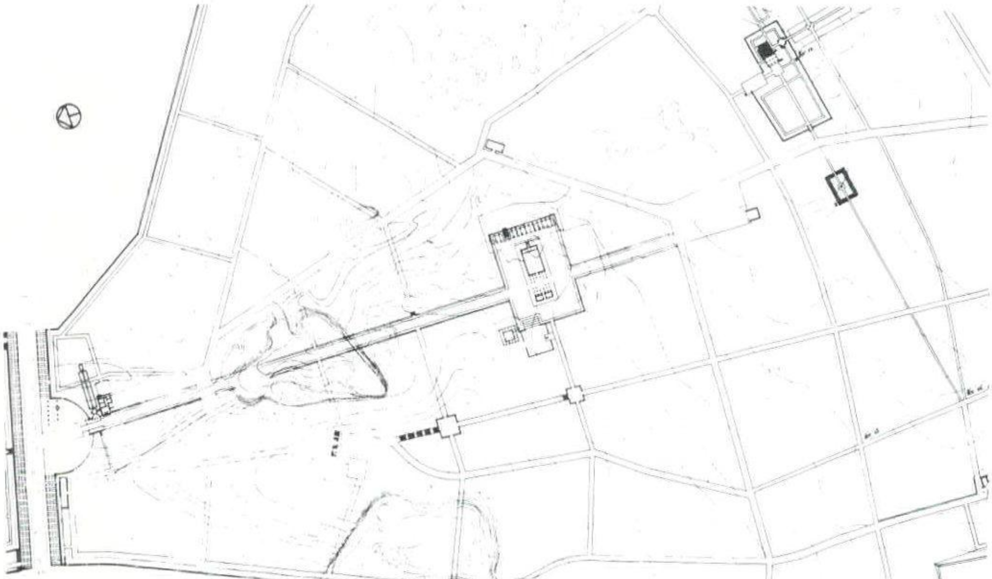
The final moulding of the landscape at the front of the cemetery and the final decision on the location of the main chapel, were represented in another joint plan of 1932. The main chapel was moved off axis to the eastern edge of the gently sloping plateau beyond the cemetery entrance. The landscape, which had been cleared of forest between the cemetery entrance and the main chapel, was now further opened up to accommodate larger expanses of lawn. It was in this proposal that the famous grass covered knoll with the meditation grove found its form.[6]

building seems to indicate Lewerentz's hand as it
close affinities to the Resurrection Chapel then
er construction at the cemetery. But if we
pare Lewerentz's entry scheme to Asplund's
lösund Cemetery layout, we see the latter
‹ing along very similar lines at this time.

the creation of a separate hillock out of the ridge
its origin in the 1922–23 proposal when the
ıitects, citing reasons of circulation, were able to
a service road through the ridge. It was, however,
arently not until the work on the road was in
ȷress that the architects realized its potential
n open landscape. Until the plan of 1932, the hill
to have been forested with graves placed among
trees.



17
E. G. Asplund, Skovde Crematorium, 1937-40, side view.



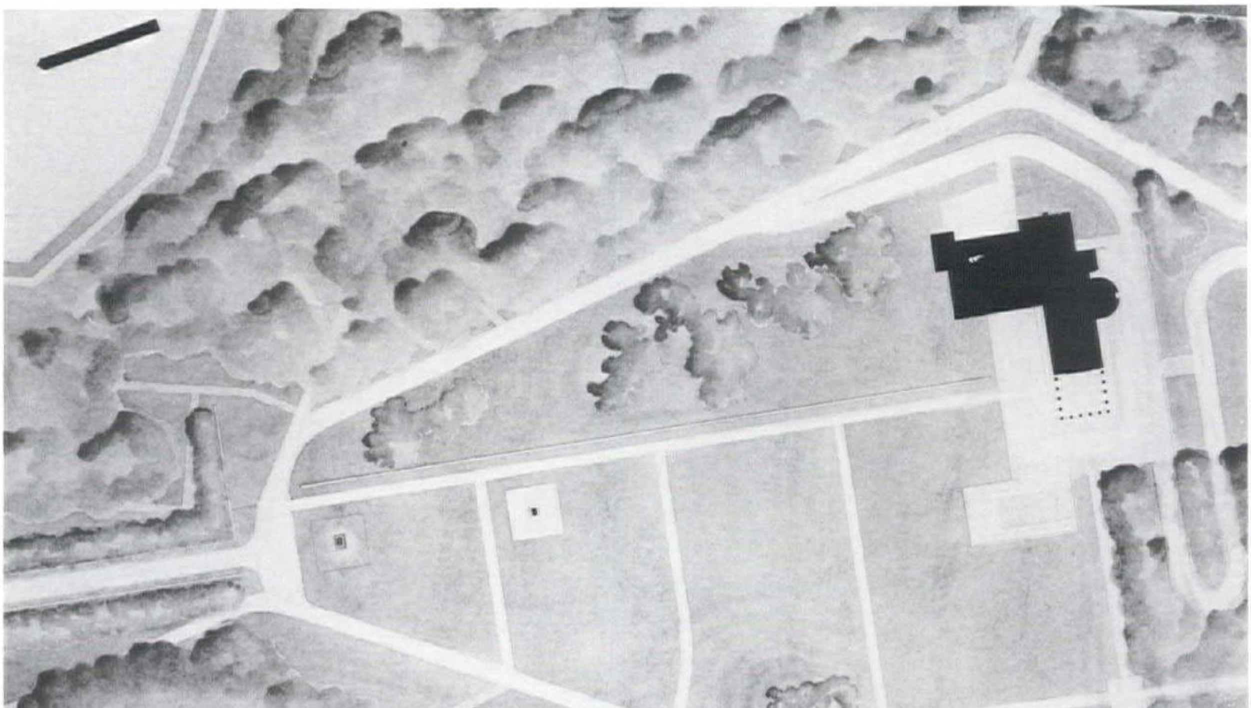
18
Woodland Cemetery, front portion, plan and section, 1922.

found in the gouache, but in the 1932 site plan. wall had in fact been two walls in the 1922–23 eme, but one wall was eliminated to open up the v of the landscape facing the chapel.

The scheme of 1932 represents a move from the classicism of the 1920s to a more naturalistic asymmetrical layout with a modernist influence. But, though it may be seen as a move back to a more picturesque direction, the overly romantic scheme of the competition was gone, modified by the severe and elementary classical sensibility of the 1920s and the minimalist asymmetry of modernism. Yet the essence of the original scheme remained – a powerful emotional resonance evoked by the landscape which now once again became the dominant focus of the scheme.

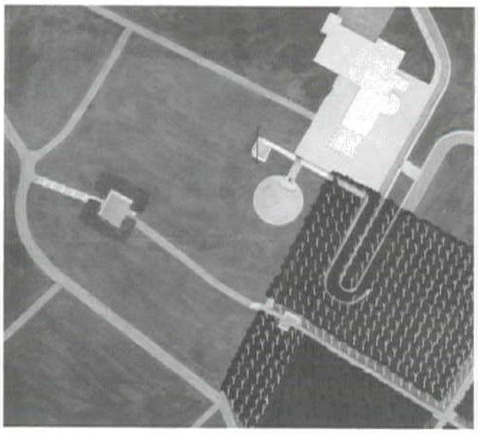
A gouache by Asplund dating from 1932, an aerial axonometric of the landscape around the still sketchily designed main chapel, shows the key elements already in place: the open landscape, the meditation grove and the earth mound, the planted birch forest at the top of the ridge and even the road to the chapel. The main chapel shows two elements which would carry through to the final scheme, the open loggia in front of the chapel and the low wall following the footpath leading up the hill to the chapel.[7]

In 1935, Asplund began the final designs for the building which was now to be a crematorium. The program called for one large and two small chapels. Like the Woodland Chapel, the crematorium subordinates itself to and is an integral part of the landscape. But unlike the intimate forested site of the chapel, the landscape setting of the crematorium is open and has a monumental sweep. Visually tied to



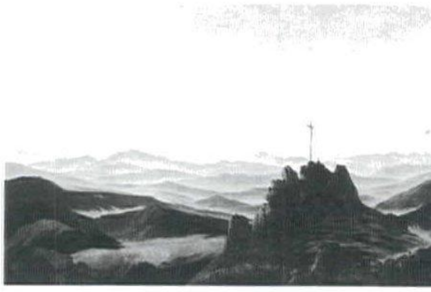
19
Woodland Cemetery, watercolor, front portion, 1932 plan.

the low wall that borders the footpath up the slope, the building follows the edge of, and blends in with, the forest on the eastern edge of the site, which it defines. Seen from the entry to the cemetery, the strong rising directionality of the low wall is terminated by the static form of the great loggia at the crest. The large stone cross silhouetted against the sky acts as a counterpoint to the linearity of the wall and becomes one of the focal points in the composition.



20
Woodland Cemetery, gouache, chapel and landscape, 1932.

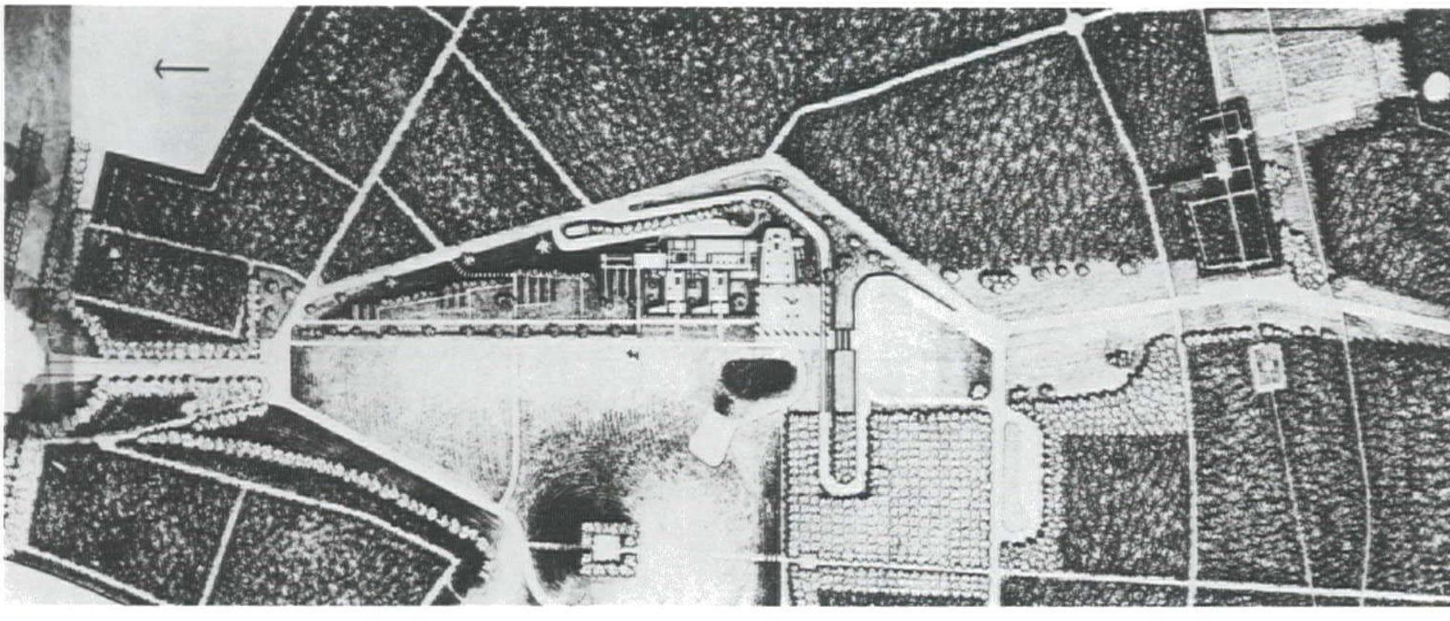
Balancing the crematorium on the eastern edge of the open site is the great earth mound on the southwestern edge. The square grove of trees at its top forms a second focal point in the landscape. These focal points, the loggia, the cross, and the meditation grove, all silhouetted against the sky, exist in a sparse minimalist surrounding of sky and earth. The lawn sloping up from the foreground towards the ridge carries the eye to an empty sky. The top of the fir and birch forest beyond is barely visible. As in the blank, tableau-like front façade of the Villa Snellman, similarly bifocal, the open expanse of grass and the sky becomes the cosmic tableau upon which Asplund composes.



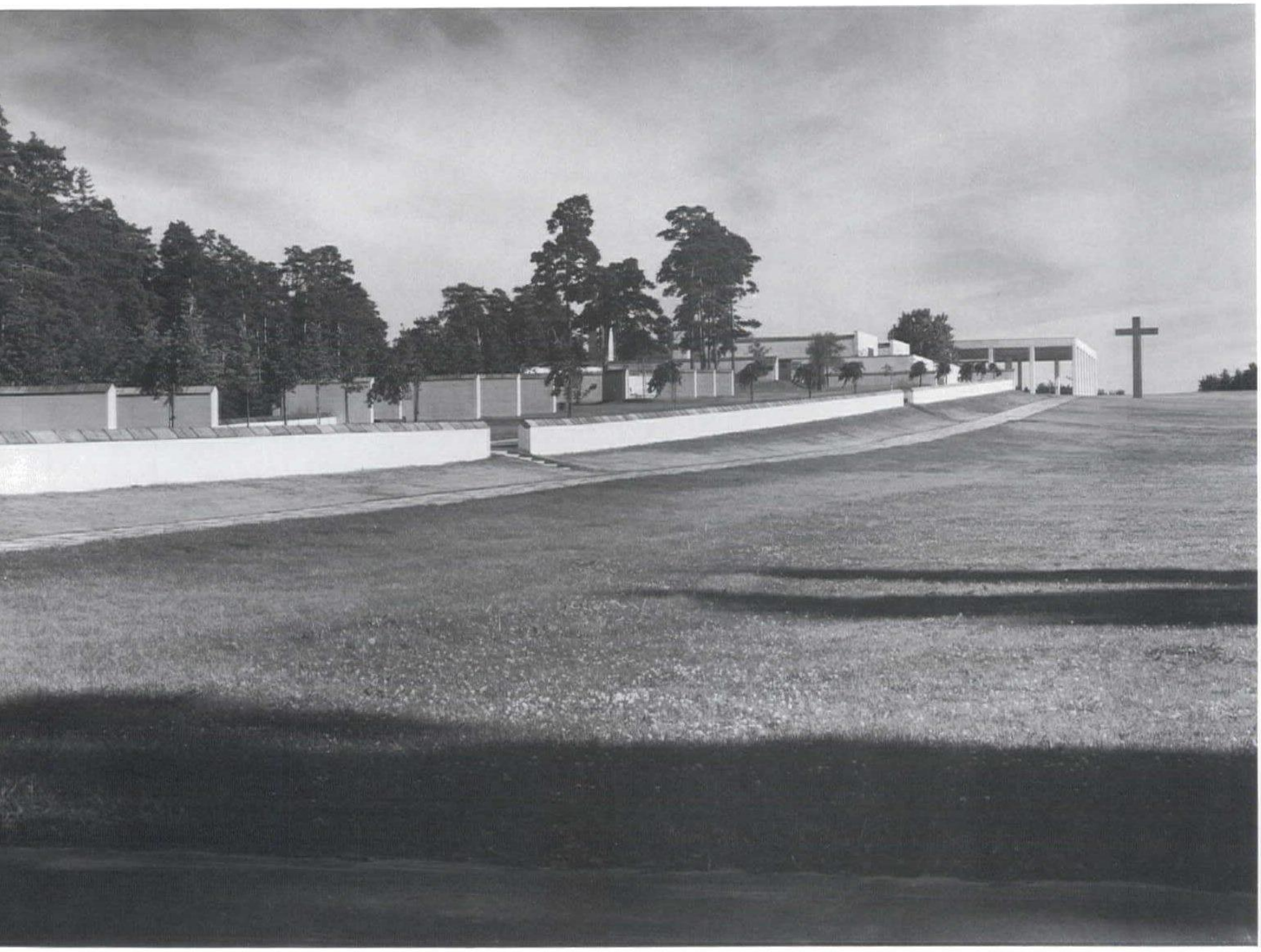
23
Caspar David Friedrich, "Morning in the Rosengebirge", 1810-11.

For, upon entering the Woodland Cemetery, we are in fact confronted with a cosmic landscape of Friedrichian intensity and power. The sparse elementary composition has excluded all redundant el
ments. As in Friedrich's "Morning in th
Reisengebirge", we stand before a lan
scape of a profound religious intensity.
Asplund and Lewerentz, working for o
twenty-five years, had perfected their
composition. The lingering connection
the landscape painters of the 1890s is
also clear as are additional connection
Friedrich.

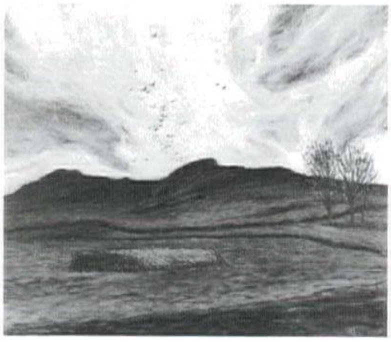
While Friedrichian in its intensity whe
experienced from the oblique approac
the entrance, the building complex wh
seen in the landscape from the meditation grove, has a classic Poussinesqu
repose with its layered planes. Thus,
from the initial powerful sense of the s
lime upon entering, the feeling change
to arcadian repose and tranquility as o
moves about the landscape.



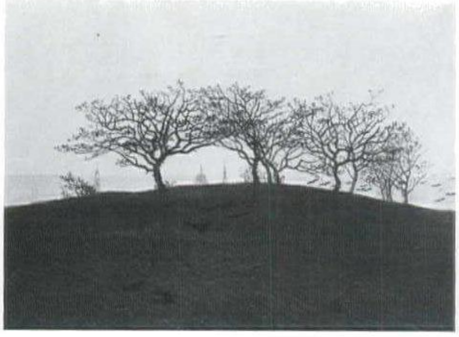
21
The Woodland Cemetery, final site plan of the front portion of the cemetery with crematorium, undated.



22
Woodland Crematorium, 1935-40, crematorium and landscape from cemetery entrance.



24
Karl Nordström, "Storm Clouds", 1893.



26
Caspar David Friedrich, "Hill and Ploughed Field near Dresden", 1824.

25
Woodland Crematorium, great cross with knoll and meditation grove in background.

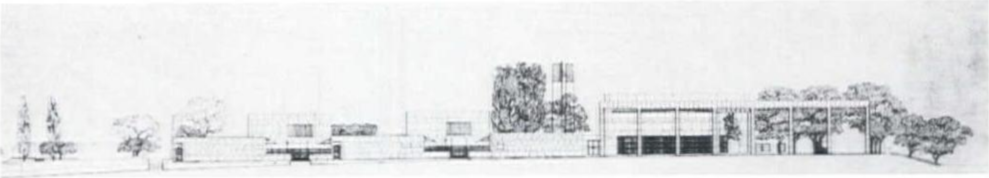
29
Woodland Crematorium, view from the loggia towards the meditation grove on the knoll.

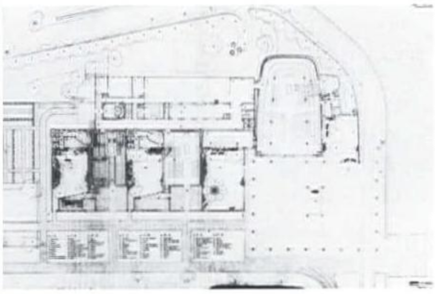
As at the Woodland Chapel, architecture and nature borrow motifs from and mimic each other, as well as representing basic dualities that take on symbolic overtones. While the great earth mound in its archaic and amorphous shape contrasts with the planar geometry of the architecture, the strict square placement of the trees of the meditation grove on top of it echoes the shape of the loggia and the trunks of the trees its pillars. In contrast to the frontal geometry of the building, the main chapel takes on a natural "organic" form adding another natural dimension to the building which already represents a complex interlocking of architecture and nature via the extensive set of courtyards. By jumping scale, we may see the three chapels of the building, fronting on the landscape as they do, as side chapels to the main "cathedral space" of the open landscape itself. And in a reversal of an ancient metaphor developed in a number of other Asplund projects, the sky becomes the ceiling.

The forms of both natural and architectural elements take on symbolic meaning. The great earth mound recalls the archetypal Nordic burial mound, but also evokes a great earthen breast;[8] the double symbolism appropriately echoing the Cremation Movement's coupling of death and rebirth. The main chapel, its organic shape suggesting both burial cave and womb, echoes the same symbolism. While the meditation grove and the loggia echo each other, they also provide a two-way directional force between earth and sky, symbolically a kind of communication system. The trees of the grove reach up towards the sky while the loggia with its inverted roof and impluvium, receiving the life-giving water from above, inflects towards the ground.

y be noted that the great Bronze Age burial
ids in Denmark have, especially when they occur
rs, always been referred to by the local
ation as the "maiden mounds."

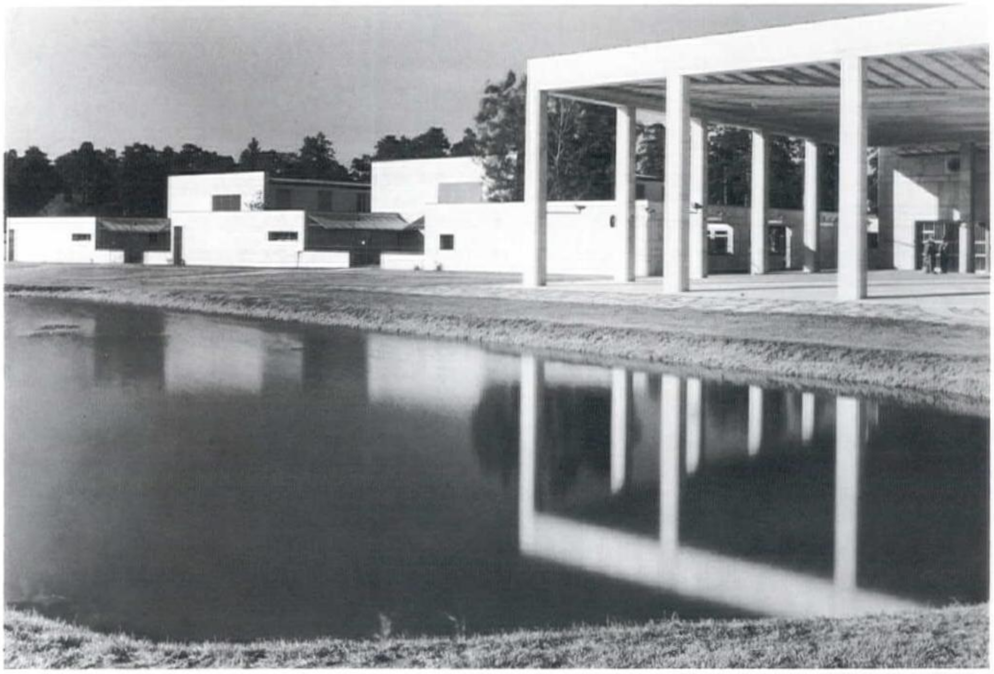
28
Woodland Crematorium, drawing of front facade.





30
Woodland Crematorium, ground floor plan and side elevation.

27
Woodland Crematorium, the great loggia and two small chapels.



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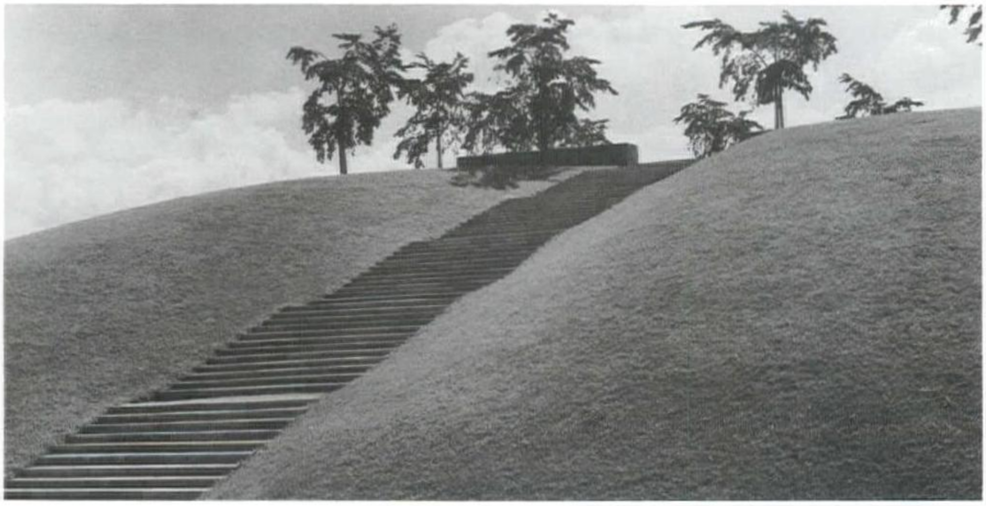
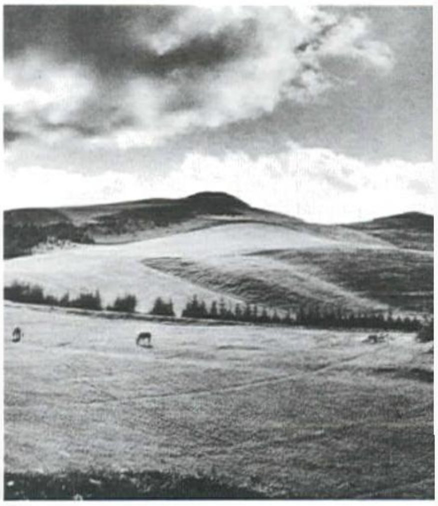


31
Woodland Cemetery, steps to the meditation grove by Sigurd Lewerentz.



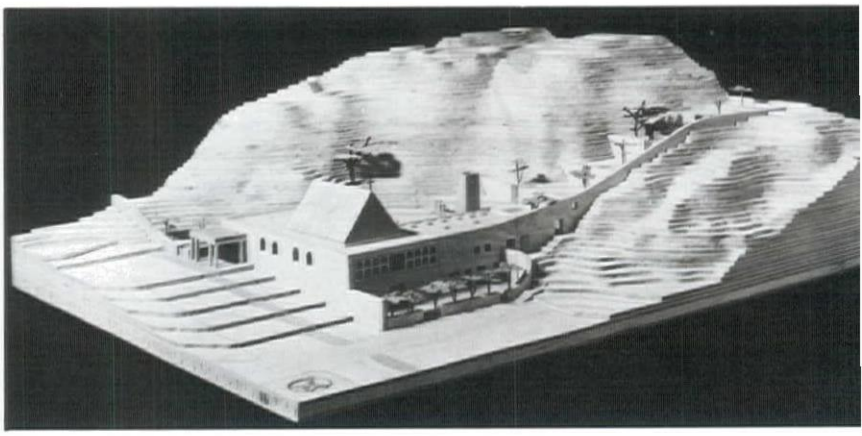
32
Stabelhöj (Bronze Age burial mounds) at Agri on the island of Mols, Denmark.

Formally the crematorium represents a head-tail organization with the static loggia acting as head, and the frontal walls of the small chapels together with the wall following the path constituting the subordinate tail. As a compositional device, this is a repeated theme in Asplund's work, from the winning competition scheme where the Path of the Cross was the winding tail leading to the chapel, the head, to the 1938 project for the Kviberg Crematorium, where the wall descends down the hill to fuse with the chapel.[9] It is also the underlying concept in the articulation and siting of Asplund's summer house, and in the 1926 scheme for Odenhallen, where the Public Library and Sales Hall form a clear head-tail organization. But, in addition to its semi-

anthropomorphic quality, the Woodlan
Crematorium most clearly indicates an
other important feature of this organiz
tional device. For here the combinatior
tail and head, wall and loggia, may als
be seen as the combination of the vernacular (the wall) and the classical (the
loggia). Thus we may see Asplund as s
cessfully combining two separate tradi
tions, the classical and the vernacular,
siting buildings in the landscape, a phe
nomenon that parallels their integratio
in his architecture. The buildings stand
a separate static element in the landsc
in the manner of the classical tradition
while at the same time are moored to
integrated with the landscape via the w
in the manner of the vernacular traditi

34
Stennäs, Gunnar Asplund's summer cottage, Lisön, Sorunda, exterior.

33
E. G. Asplund, Kviberg Crematorium, Gothenburg, 1936-40, project model.

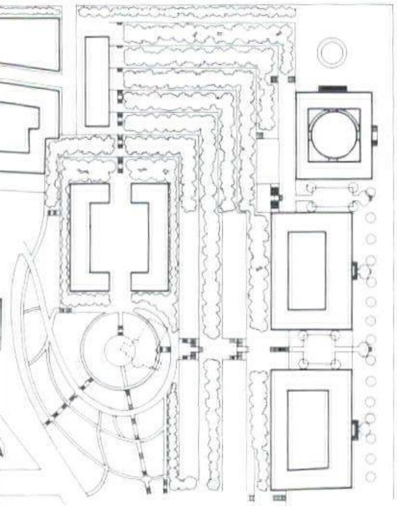


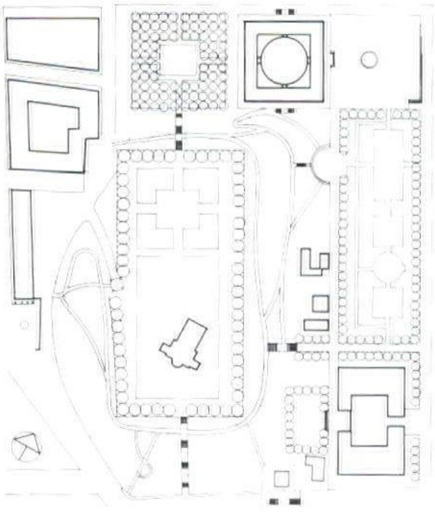
9
Unfortunately, when built, the wall went straight into the hill rather than climbing up it as originally designed thus destroying an essential element of the composition.

The Stockholm Public Library

The Stockholm Public Library posed a challenging siting problem for Asplund. Set in the middle of central Stockholm, the library not only had to adjust itself to the surrounding multistory apartment buildings along Sveavagen and Odengatan, but had to deal with a large untamed hill adjacent to it in the center of the block. In conjunction with the library design, Asplund was asked to work out a master plan for the block. The first plan of 1922 was the most elaborate and exploited the block rather heavily. Asplund turned the slope of the hill into an extensive set of terraces to the north and east, with the terracing extending all the way to Odengatan. A year later Asplund produced a revised scheme for the block. A number of important changes occurred. Not only were a number of unspecified buildings left out, creating a much more park-like setting, but the focus of the block had changed from Odengatan to Sveavagen, which, because it connected to the center of the city, was the more important street. Asplund also abandoned the effort to order the slope of the hill through terracing and instead created a kind of walled acropolis at the top of the hill, leaving the rest in its natural state as a complement to the otherwise formal park layout.

Two library related projects of 1926 focused Asplund's mind on the final articulation of the site, one of which unfortunately did not get built as planned. Whereas the first two schemes were still diagrammatic and contained redundant elements, the 1926 schemes pared things down to essentials and brought the elements together into a unified whole. The two projects were the limited competition for the park adjacent to the library along Sveavagen, and the plan for a market hall, Odenhallen, along Odengatan.





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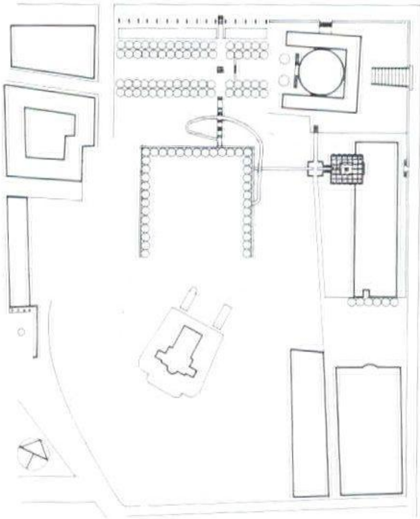


37

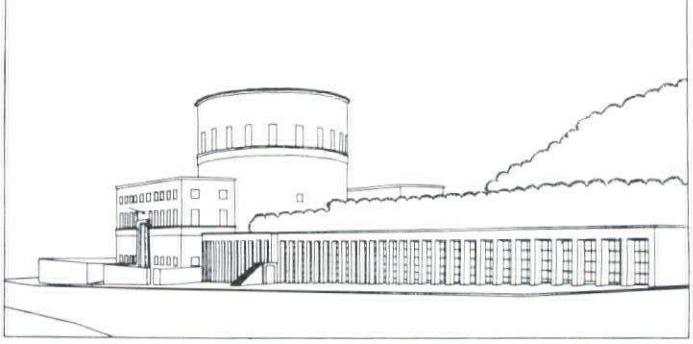
Asplund, Stockholm
ic Library, 1922 site plan.

kholm Public Library, 1923
plan.

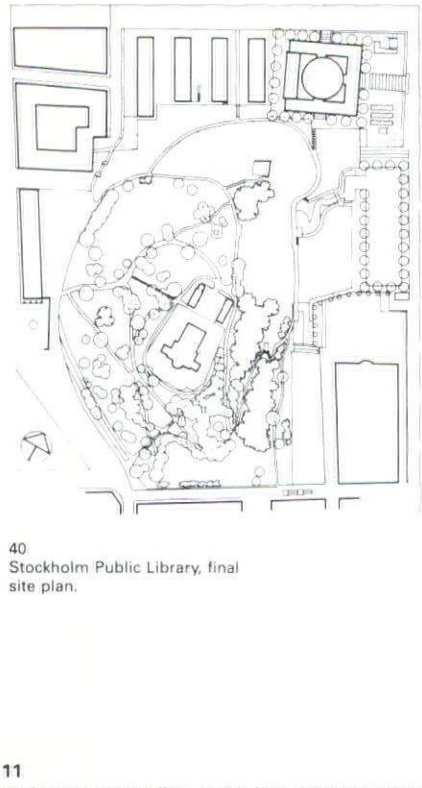
kholm Public Library, 1926
posite plan showing
petition entry for park and
osal for Odenhallen.

hallen, 1926, perspective
ing.

39



10
In the actual building, the front of the base facing Sveavagen was inflected, making it parallel to the front of the library and providing a natural entrance into the adjacent park.



40
Stockholm Public Library, final site plan.

11
In the actual building, some key elements were modified or left out. The modification of the stream has already been mentioned. And, instead of the concentrated grove of trees that provided a soft contrast to the hard geometry of the built forms, the final project surrounded the pond and building with trees, diluting the power of the initial conception.

The park along Sveavagen is a study in the richness of simple minimalist landscape design. The main element is a large, shallow rectilinear pond along Sveavagen on axis with the raised forecourt of the library. When viewed diagonally across the pond, the stark forms of the library are mirrored in the pond. Intersecting one side of the pond and jutting out into it there was originally to be a smaller square, defined by walls and evenly planted with a square grove of trees whose overhanging branches gave it a distinctly soft appearance. The contrast of the soft grove of trees with the stark hard forms of the library behind it as seen in a watercolor by Asplund is beautiful and another indication of the basic dualities that constantly underlie Asplund's work. The amorphous shape of the hill contrasted to the sharp abstract geometry of the library and the soft sunken space of the pool contrasted to the hard upward thrusting mass of the library represent other such basic dualities. While they are in a sense well known historical composition devices, Asplund has succeeded in imparting to them a new intensity.

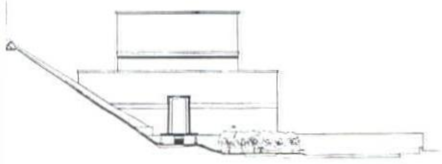
At the top of the hill, a stream emerges out of a vaulted opening and flows down a chute, under the walk leading to the library, breaking into a cascade with steps on either side. It flows into the center of the little grove where it forms a square pool before flowing over a last cascade and into the large pond. This rigorous but rich landscape layout, evoking both the primal spring and the sacred grove, remained the basis for the built project, but both the stream and the square grove were unfortunately modified into a more informal and less intense direction.

The scheme for Odenhallen dealt with the area behind the library along Odengatan. Asplund designed a low narrow pillared market hall set back from the street to allow temporary open-air stands on the sidewalk, in front of it. The hall was oriented only to the street, being partly built into the earth because of the slope of the land. The building thus acted also as a wall between the street and the park behind, broken only at one point by a stair set at a perpendicular angle to the building that ascends to the park and via a stepped path to the top of the hill beyond. In its relation to the library, the market hall is subordinate, essentially continuing the role of the wall played by the library base. Here, as already mentioned, we again have an inventive variation on the head-tail theme, with the library as the free-standing head, and the market ha the tail anchoring the complex to its si

Between the market hall and the steep slope of the hill, Asplund created a par Two rows of trees on either side made great cylinder of the library the focus o the composition. While it was essentia a straightforward park layout, the view wards the powerful and dominant libra cylinder would have made of the park extraordinary visual experience.

Tying these landscape compositions to gether, the nexus and dominant eleme of the scheme was the library itself, at corner of the two streets. Its base conformed to the rectilinear order of the street grid[10] defining the edge of the si walk as well as reinforcing the everyda street activity by providing shops alon the Sveavagen side. Only at the point where it confronts the corner of the ste hill does the base set back and make a inflection. This inflection becomes the erence for the inflection of the library i self, which is given a slight twist off th rectilinear to further emphasize its imp tance. It is thus related to the observat on the hill by being inflected off the gri and by the placement of the library cyli der on axis with the observatory. One o the side walls of the Capitoline-like ram cutting through the base to the main e trance of the library is also inflected at same angle as the building, thus acting a mediating element between rectiline order and the inflected library, but also creating a forced perspective as one ap proaches the building up the ramp.

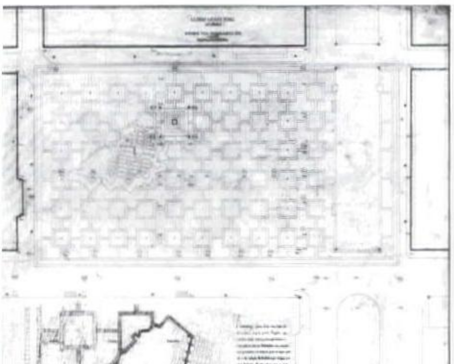
Thus through a complex series of devi axes, vistas, reflections, inflections, co trasts of opposites, the elements of the site are brought together into a unified whole. Asplund also tied his building complex into the surrounding urban fa ric through two historic devices. The height of the main square block of the brary aligns approximately with the co nice height of the surrounding apartme buildings, thus giving them all a comm reference plane. And while the surroun ing block of apartment buildings create dense urban *poché*, the library exists a its opposite, a free-standing object in a park-like setting carved out of the *poch* thus both separated from and unified v its surroundings.[11]



kholm Public Library, 1926
section.

kholm Public Library and
, view

41



G. Asplund, Gustav Adolf
uare, Gothenburg, 1924,
posal for paving, plan.

Landscape fragments

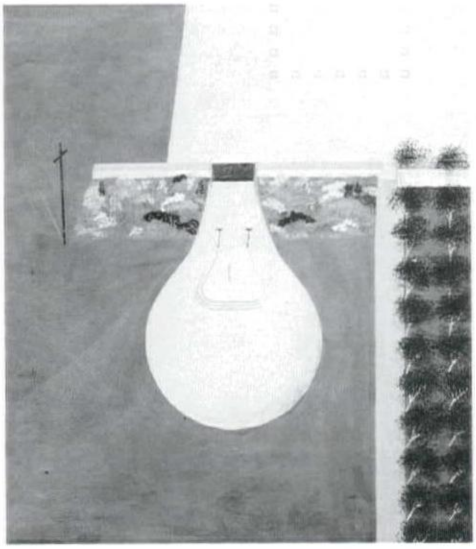
Finally, I would like briefly to discuss a few of Asplund's landscape details, elements within larger contexts, to illustrate how in a sense he recharged traditional landscape elements with new vitality and meaning. The proposal for paving Gustaf Adolf's square in Gothenburg is a case in point. Borrowing an idea from the Romans who inscribed a map of Rome in the Forum Romanum, Asplund superimposed the irregular outline map of fortified old Gothenburg at an angle on an overall rectilinear paving pattern of squares connected at midpoints, creating a superb piece of abstract graphics. However, not only is the reference to the Forum Romanum made, but the development of the European city in general, and Gothenburg in particular is symbolized where the fortified medieval town outgrew its walls and expanded out into the landscape in a regular grid pattern.

In his 1932 design for an outdoor ceremonial plaza adjacent to the Woodland crematorium, later to be built in a different form, Asplund has taken the traditional curving garden steps that well out through a terrace wall and turned it into a large drop shaped stone paved area that appears to have run, liquid like, out over the grassy landscape. A smaller tongue, framed by two torches, continues on a level course and becomes the platform upon which the casket is set.

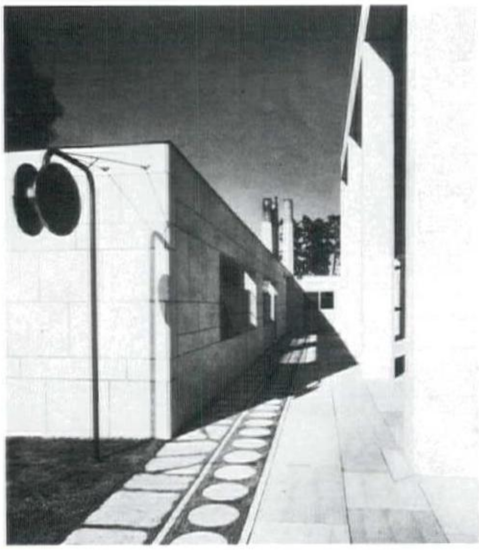
The outdoor clock at the crematorium is a most traditional, and in this case utilitarian, outdoor element. But by its placement and by the inflection he has given it, Asplund has charged it with meaning. Not only does the clock evoke the passing of time and thus in this context, mortality, but the way it is bent over evokes metaphors of both old age and the withering of a flower.

In his design for an outdoor drinking fountain for the Carl Johann school in Gothenburg done in the early 1920s, Asplund uses the traditional landscape element, the urn. But rather than the ornate urns set on pedestals so beloved by the nineteenth century, Asplund uses a simple but very sensual "vernacular" amphora shape and sets it directly on the ground surrounded by four stone slabs forming a circle around it. The bulging sensual form with its jet of water appears almost to have grown out of the ground. While the metaphor of drinking in classical culture is obvious, more importantly the sensuality of the act of drinking is made manifest. And the curving form of the amphora provides a contrast to the rigorous rectilinearity of the adjacent building.

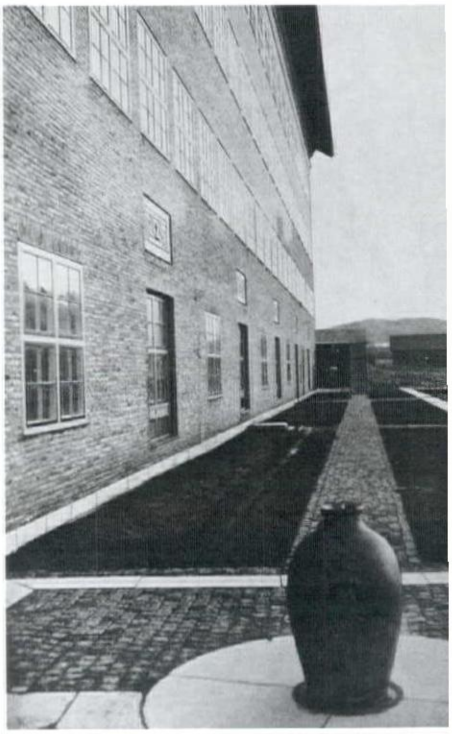
In 1940, Aalto wrote of Asplund in reference to his Skandia Cinema, "I had the impression that this was an architectur where ordinary systems hadn't served the parameters. Here the point of departure was man, with all the innumerable nuances of his emotional life and natur This contact with nature, man included was clearly discernible in all of Asplunc projects. Much can be written about Asplund's art and its different phases, t if one studies them one will always finc this underlying direct contact with nature."[12]



43
Woodland Cemetery, proposed outdoor ceremonial plaza, 1932 gouache.



44
Woodland Crematorium, Clock.



45
E. G. Asplund, Drinking Fountain, Carl Johann Sch
Gothenburg.

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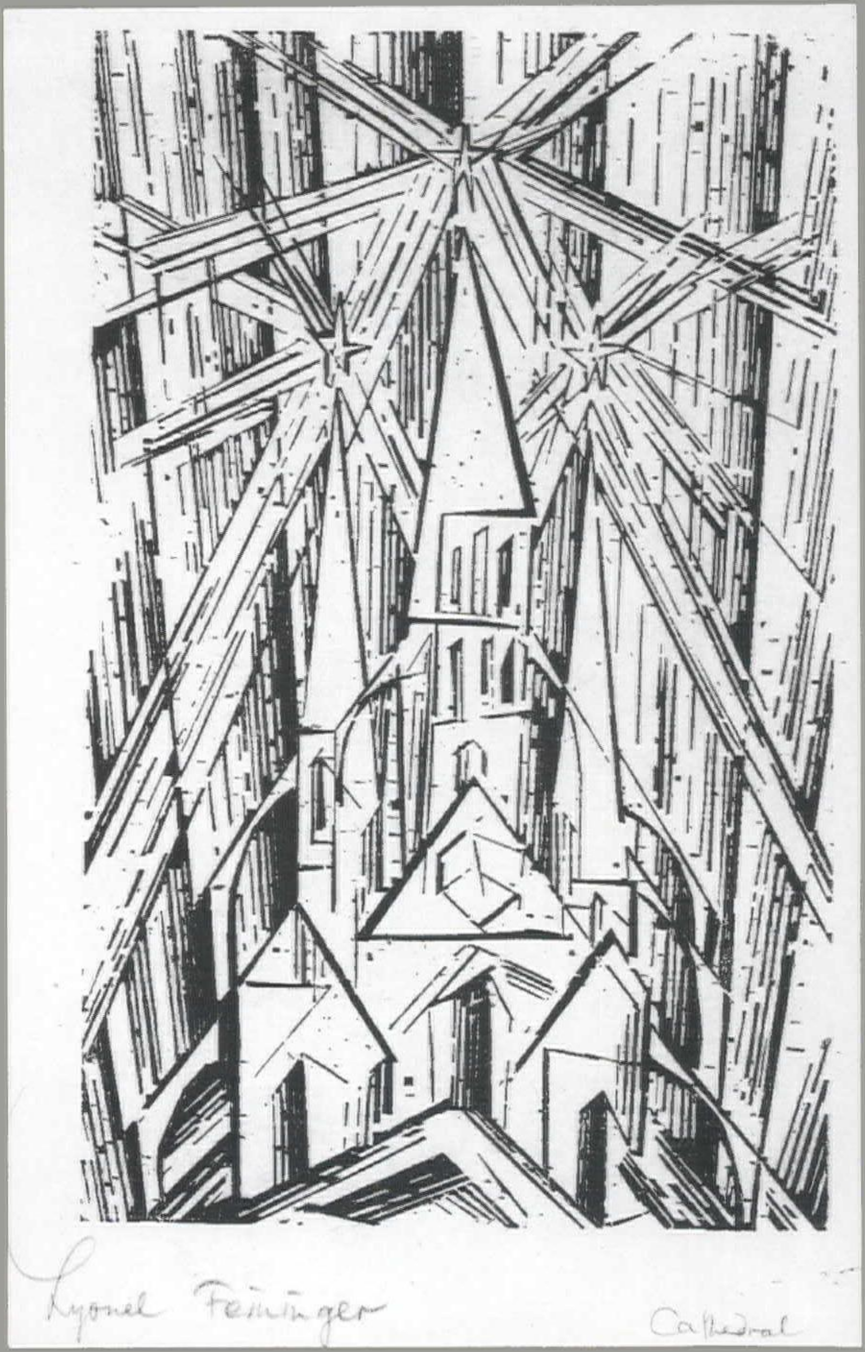
[12] **Alvar Aalto, "E. G. Asplund in Memoriam (1940)," *Sketches* (Cambridge, Mass. and London: MIT Press, 1978), p. 66.**

Architectural Authenticity



nel Feininger, "Cathedral",
9, woodcut. Collection, the
seum of Modern Art, New
k. Gift of Abby Aldrich
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Perspecta, The Yale Architectural Journal, Volume 20 0079-0958/83/20215-005$3.00/0

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From the very outset the Modern Movement in architecture was haunted by the spectre of the Gothic cathedral. The one thing upon which its founders and early apologists agreed, whether at the Bauhaus, or at Taliesin, or at 35 rue de Sèvres, was the notion that in the thirteenth century there had been produced a truly authentic architecture, the real thing, so genuine as to have set a standard by which the works of later builders might be judged and found wanting. In the Gothic era, architecture had indeed been "the mother of the arts," and the architect had played a grand role within a grandly coherent scheme of things.

The nineteenth and early twentieth century judgment as to the excellence of what the thirteenth century architect had wrought was based upon two disparate and virtually unrelated criteria. On the one hand it was argued, especially by Pugin and Viollet-le-duc, that the Gothic was the most rational of styles, one in which considerations of structural honesty were paramount: the mechanics or engineering of the building was held to have been made wholly visible, and the shapes of all its elements to have been determined by their function. (These were conceived, of course, to have been characteristics of the Gothic *style*; they were not thought to have derived from the specifically ecclesiastical purposes or program of the architect and his patrons.) On the other hand, and at the opposite pole from such matters of praxis, it was averred that the Gothic had expressed, had bodied forth in visible form, the very life and spirit of what was imagined to have been a pervasively Christian age (never mind the innumerable manifestations of barbaric violence and cruelty that were typical of its life). So organic had been the community that the many kinds of anonymous craftsman who had brought the building and its appurtenances into being had worked in intuitive harmony with one another and with the *Zeitgeist*, hardly aware of the idea of style and blessedly ignorant of style history. That ideal state of affairs was believed to have been corrupted and undone by the emergence in the fifteenth century of the *academic* architect, who came to the profession by way of bookish learning rather than by having acquired, within the quasi-religious fellowship of the stonemasons' guild, the practical skills of the master builder.

Out of this way of thinking, as we all know, came the belief that an authentic modern architecture could arise only o the basis of a craftsmanly knowledge c the properties of materials and the processes of construction (*modern* materi and *modern* processes, needless to say a thoroughgoing analysis of the specifi functions that any given building shoul be expected to serve or satisfy, and an unquestioning acceptance of the belief that ours is the age of Science and Technology—an age in which consideration of efficient cause have superseded and displaced once and for all the notion of final cause as a factor at work in the un verse; wherefore it seemed appropriate that our architecture should be based upon mechanistic problem solving, sinc only that is in keeping with scientific method and with what science has demonstrated to be "the nature of things."

But now that most of us have lost faith the historicistic idea of *Zeitgeist*, having come to see that our Victorian forebear were guilty of circular reasoning when they defined the spirit of the Gothic Age in terms of its art and architecture and then proceeded to find that same art an architecture to exemplify the Gothic Spirit; and now that we have come to s that the functionalistic interpretation of the Gothic style involved a lamentable confusion of aesthetic factors with structural ones, how much of its vaunted authenticity does the cathedral retain? Can we still conceive that it sets a standard, must we see it as having been merely a ephemeral manifestation, one of the many phases or episodes that have constituted the on-going, ever-changing, an open-ended history of architecture?

Modern historiography has so zealously embraced the methodology and outlook of the social sciences that we have all been persuaded to eschew the poetic id alizations of a Ruskin or a Henry Adams and to try to find the hidden or unspoke purposes (most likely of a base and self-serving nature) that we assume to lie behind ostensibly noble enterprises. From this point of view we have no trouble at all in interpreting the Gothic cathedral as having been a masterful propaganda stroke, aimed at supporting a carefully calculated policy, conceived in all likelihood by the Abbot Suger, the purpose o which was to bring about a new and stabilizing accord between and among the French royal court (eager for the kind of monarchical power that the dukes of Normandy had recently achieved, in alliance with their clergy and with the help of an imposing architecture, in their newly unified English kingdom), the bishops of the Royal Domain (who could no longer exercise the kind of feudal authority their predecessors had once wielded but who wanted nonetheless to maintain their dominance, and at the same time to elevate the status of the episcopal or secular church over that of the small but immensely rich monastic or regular church), and the increasingly prosperous and powerful burghers (who had reason to value their bishop's access to the king's court and to share the king's desire for a unified nation, since feudal fragmentation was a major barrier to commerce). The policy seems to have called for blandishment: it appears to have been directed toward wooing an increasingly restless and disaffected bourgeoisie by appealing to its municipal pride and to its taste for things chivalrous and courtly, and by making the church invitingly attractive, especially by virtue of its spacious and richly decorated doorways, so different from the ambivalent and often somewhat threatening entrances of the Romanesque–though we do well to remember that all the persons represented in the embrasures are members of the first and second estates; bankers and merchants were not among the saints. It was an ingenious and, for a while, a highly effective policy, aimed at creating a new "image" of the alliance of church and monarchy, an alliance that had only recently been badly shaken by the struggle over investiture; and we can see why the bishops were willing to spend enormous sums of money for the creation of that image–much as modern corporations spend comparable sums for towering skyscrapers faced with white marble or reflective glass.

Yet all this is to say that the cathedral was designed simply in order to manipulate people's feelings, to reshape their attitudes toward the governing institutions of church and state. But if the purposes of the builder and his patron were of that order, were they *sincere*? Did those men have covert motives they would not readily have admitted to? If so, was the cathedral authentic, or was it merely a sham, as hollow as a modern public relations campaign?

There have been times in my life when I have been concerned to develop at considerable length the relation of the Gothic cathedral to the machinations of institutional policy making; better that, I still think, than to rely upon anything so lame as the idea of *Zeitgeist*; but I must confess that I have lately come to see the building in a different light. In the thirteenth century the cathedral church was called the *Aula Virginis*, the *Aula Reginae Coeli*, the Palace of the Queen of Heaven, whose coronation is sometimes represented in a doorway tympanum or a stained glass window. Like other works of traditional art, the building constitutes a metaphor, wherefore its validity or authenticity depends upon the truth of what is asserted in that metaphor: to wit, that palatiality and regality, queenliness and courtliness, monarchical stateliness and resplendent enthronement, immensity, grandeur, mystery–that all these are essential aspects of the true nature of things and stand at the very summit of an ordering that is of divine ordination, then, now, and for all time. The cathedral declares that our idea of kingship derives from the reality of the Kingdom of Heaven, our idea of the city, of communion and of community, from the true being of the City of God, the Heavenly Jerusalem.

To believe the metaphor to be valid entails, of course, an act of faith, since its truth cannot be objectively demonstrated to the uninterested and unbelieving "observer," as we like to call the modern tourist or museum-goer (or student of art history); but, as Philip Rieff has persuasively argued, every community of human beings must in the long run be bound together by a shared faith, otherwise we become mere *idiotai*, monads, not so much private persons as non-persons–for personhood is not a biological attribute of each specimen of *homo sapiens*, but rather something that arises out of our meaningful, purposeful, ethical interaction with one another in the ongoing history (not to say drama) of communal life. One of the oldest and most fundamental ways of organizing that life, and the personhood of its participants, has been centered upon the idea of kingship–an idea that declares the reality of the State to be focused and dependent upon the centrality of the thinking, speaking, and responding *person*.

Faith in monarchical hierarchy remains today, hardly less than was the case in the thirteenth century, central to what the Catholic Church stands for, for that institution is the last great monarchy to survive into the present age. Since it has more members than any nation, but China, has citizens, it can hardly be dismissed as an atavistic anachronism; nor can the cathedrals be so dismissed, for what they declare has never been renounced or abrogated by the Roman church–even though some of its leaders have been gulled by panculturalists (those who believe society and its culture to constitute the ultimate human reality) into believing that the church should erect radically modern buildings lest it reveal itself to be "out of step with the times."

Some years ago I came across what seemed to me a curiously uncharacteristic statement by Ralph Waldo Emerson, whom I had never suspected of being a Platonist. "An American who has been confined, in his own country, to the sight of buildings designed after foreign models, is surprised on entering York Minster or St. Peter's in Rome, by the feeling that these structures are imitations also, faint copies of an invisible archetype." If so confirmed a Unitarian as Emerson could experience that feeling, how much more intensely must generation after generation of Catholic Christians have felt the same thing! But if Plato was dead wrong, and if there are no invisible archetypes, no eternal ideas, no Heavenly Jerusalem, no ultimate *intention* behind things and no ultimate bases of judgment; if nothing is true except for our thinking or feeling it to be so, then surely we should tear down the cathedrals (much as the Futurists wanted to tear down Venice) and replace them with corporate skyscrapers, laboratories, motels, technical schools, and low-cost public housing–that is to say, with the kinds of building that have totally dominated the Modern Movement, kinds that never symbolize membership institutions, kinds that demand of us no loyalty, no filial piety, no commitment of our personhood.

But something holds us back from that demolition, some lingering suspicion that we just may be wrong in thinking that all is flux and chance, that the only reality, for the architect no less than for the avant-garde painter such as DeKooning or Pollock, resides in our ephemeral acts of experiencing–the more novel the experience the better. In pursuit of that dubious reality we have caused both art and architecture to dissolve into a succession of trivial fads that follow one another more and more rapidly with each passing decade. But if nothing has the power to *stand*, if nothing is thought to be enduringly valid and binding, then the durable integratedness of buildings, whethe old or new, can have no metaphorical significance, no high meaning for us–indeed, the flat-walled and largely unmembered structures that have been th characteristic products of the Modern Movement have generally lacked the sy tematic ordering of parts into an integrated whole that has been the distincti feature of Western architecture for the past five thousand years.

Though it is not now fashionable to remind architects and architecture studen of the fact, the idea of stasis, of steadfas standing, constitutes the central meanin of the word "state" (from *sto*, *stare*, *stet* *status*); wherefore architecture has been ever since its earliest beginnings in Egy an art that has been devoted almost exclusively to the support of the state and state-supporting institutions. It has been neither a progressive nor a revolutionar art. Caught up as he was in the historicism that has underlain so much of our thinking about the arts, Professor Gerha Kallmann saw fit to argue, some twenty three years ago, that architects should now bring forth an "action architecture" to match the then stylish "action painting" of Pollock, Gorky, Kline, DeKooning and company–a kind of painting that briefly and vainly declared the absolute primacy of the flux of experience. But though it has always been possible for men to make Heraclitan gestures, all su persons depend every day of their lives in cold fact, upon the reliable constancy of the State and of the many state-chartered or legal institutions by whose agency its ethos, its under-girding conception of justice and civility, is maintained. No one who uses words and grammatical speech can really believe that flux, and fire, and change are the ul mate substance of things.

Despite the faddish folly of much recent painting, despite the anti-verbal minima ism or pointless eccentricity of much recent architecture, there is reason to hop that all is not lost. I draw comfort from t fact that many millions of our fellow citizens got up at four thirty in the mornin last year to witness, via satellite, the roy wedding in St. Paul's–and will in the du course of time make the same effort to witness the coronation of a new king in Westminster Abbey. I take that to indica that there survives among us a latent bu powerful and widespread conviction tha what the cathedrals stand for, what they affirm in perdurable form, is still compe ling, still valid. I am convinced that the overwhelming majority of Americans still think it appropriate that the National Capitol should in many ways resemble St. Paul's, and that many, if not most, of the State Capitols should be visibly akin to St. Paul's, or St. Peter's, or the Invalides–should derive in the long run from a tradition of columniated architecture that reaches all the way back to pharaonic Egypt. That tradition has from the beginning been bound up with the notion that there is an "invisible archetype" that authenticates the community's demand that we conform to its standards of justice and decorum.

The founders of the Modern Movement apparently fancied, as have so many liberal social scientists and academics, that the instrumentalities of modern science are putting in men's hands, the means by which we shall be enabled to deal rationally with the organization and reform of society, so that we may all be liberated from the burdensome necessity of having to conform to ancestral norms. Unquestionably, the impact of such thinking has been immense, but that the results have been salutary seems increasingly doubtful, at least to a very large number of our fellow citizens. They continue to take seriously the forms of traditional church buildings, capitols, courthouses, and mansions (such as the White House and Monticello), sensing, as did Emerson, the power of the archetypes that lie behind not only the buildings themselves but behind the institutions, the enduring modes of human relatedness, that the buildings symbolize. Therein, I am persuaded, is to be found the only basis for an authentic architecture. To think, in the post Modern manner, that a building is authenticated by its uniqueness, or by the idiosyncratic eccentricity of its architect is to embrace madness: for it is to deny that a shared faith is either possible or desirable–and that, in turn, is to deny that the idea of civilization any longer has meaning.

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Timeless but of Its Time: Le Corbusier's Architecture in India

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Architecture and Morality: An Interview with Mario Botta

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The Symbolism of Centric and Linear Composition

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Prospects for a Critical Regionalism

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Tadao Ando: Heir to a Tradition

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Authenticity, Abstraction and the Ancient Sense: Le Corbusier's and Louis Kahn's Ideas of Parliament

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Landscape and Architecture: the Work of Erik Gunnar Asplund

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Architectural Authenticity

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Karsten Harries was born in Jena, Germany in 1937. He received a Bachelor of Arts degree and a Ph.D. in Philosophy from Yale University, where he is currently a Professor of Philosophy. His study has concentrated in two areas: existentialism, especially the thought of Martin Heidegger, and the philosophy of art. Since the appearance of his book, *The Meaning of Modern Art* (Northwestern University Press, 1968), his interest has shifted more specifically to architecture. *The Bavarian Rococo Church: Between Faith and Aestheticism* (Yale University Press, 1983) will be followed by a more general work, closely related to the essay for *Perspecta 20* and to its two predecessors, "The Dream of the Complete Building" (*Perspecta 17*, 1980) and "Building and the Terror of Time" (*Perspecta 19*, 1982).

Giuseppe Zambonini was born in Italy in 1942. He received his Dottore in Architettura in 1971 from the Istituto Universitario di Architettura of Venice with a thesis on the Architectural and Political History of the City of Verona, presented to Carlo Scarpa. He has taught drawing, architecture and theory of form uninterruptedly since 1961 both in Italy and in the United States. He is presently a Critic in Architectural Design at Yale University. Mr. Zambonini practiced experimental theater in Italy and architecture and furniture design in the U.S. since his immigration in 1971. In 1976 he founded The Open Atelier of Design in New York City, where he is finally able to integrate design, construction and teaching.

Koji Taki, a photographer and art critic, is currently a Professor at the Tokyo College of Art and Design. Born in Japan in 1928, he has enjoyed a long friendship with Kazuo Shinohara, who requested that he write this article. His books include *Thought Without Words* (*Kotoba no nai Shiko*), *The Lived House* (*I Kirareta Ie*), and *Metaphor of the Eye* (*Me no Inyu*).

Christian Norberg-Schulz was born in Oslo, Norway in 1926. He received his ploma in Architecture from the E.T.H. i Zurich (1949) and continued his studie Harvard (1952–53) and in Rome (1956-58). He has taught, lectured and published widely in Europe and the Unite States. His books include *Intentions in Architecture* (Allen & Unwin, 1963 and MIT Press, 1977), *Existence, Space and Architecture* (Praeger, 1971), *Meaning i Western Architecture* (Praeger, 1975) an *Genius Loci: Towards a Phenomenolog Architecture* (Rizzoli, 1980).

Joseph Burton was born in Palaios, Tex in 1947. He was educated at the University of Texas, where he received both his Bachelor and Master of Architecture degrees. He recently completed his Ph.D. in Architecture for the Graduate School of Fine Arts at the University of Pennsylvania.

Peter Serenyi was born in Budapest, Hungary in 1931, and lived in Hungary and Austria prior to immigrating to the United States in 1950. He graduated from the French–Hungarian Lyceum in Innsbruck, Austria in 1949. He later received an A.B. in the History of Art from Dartmouth College in 1957, an M.A. in History from Yale University in 1958, and a Ph.D. in the History of Art from Washington University in 1968. His diss tation was titled, "Le Corbusier's Art an Thought: 1918–1935." The research for his article for *Perspecta* was aided by a initial grant from the Graham Foundati for Advanced Studies in the Fine Arts a later by a Senior Research Grant which Dr. Serenyi received for a 1974–75 ter of study in India. Dr. Serenyi is currentl the chairman of the Department of Art a Architecture at Northeastern University.

Livio Dimitriu, born in Romania in 1950 is now an architect practicing and teach ing in New York. He was the founder, in 1978, of the U.S.A. Group, an organizati devoted to developing a better understanding of American and European arch tecture. He is an associate in the firm of Perchuk and Associates, Inc. He has exhibited, published, lectured and taught abroad and in the U.S.A. at the New Yor Institute of Technology, Pratt Institute, Syracuse University, and the Open Ateli of Design. Professor Dimitriu has curate many North American premier architectural exhibits since 1977, among them: Alessandro Anselmi of G.R.A.U., Mario Botta, Vittorio Gregotti, Figini–Pollini, Franco Purini and Alberto Sartoris.

Rudolf Arnheim received his Ph.D. in experimental psychology at the University of Berlin in 1928. After his arrival in the United States in 1940 he taught at Sarah Lawrence College and the New School for Social Research. From 1968 until his retirement in 1974 he was Professor of the Psychology of Art at the Carpenter Center for the Visual Arts of Harvard University. At present he is a Visiting Professor at the University of Michigan in Ann Arbor. Among his books are *Art and Visual Perception* (1954–74), *Visual Thinking* (1969), *The Dynamics of Architectural Form* (1977), and *The Power of the Center* (1982)–all published by the University of California Press.

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