

1 Introduction:

Reflections on the Scope of the Tectonic

The history of contemporary architecture is inevitably multiple, multifarious even; a history of the structures that form the human environment independently of architecture itself; a history of the attempts to control and direct those structures; a history of the intellectuals who have sought to devise policies and methods for those attempts; a history of new languages which, having abandoned all hope of arriving at absolute and definitive words, have striven to delimit the area of their particular contribution.

Obviously the intersection of all those manifold histories will never end up in unity. The realm of history is, by nature, dialectical. It is that dialectic that we have tried to pin down, and we have done what we could not to smooth over conflicts which are cropping up again today in the form of worrisome questions as to what role architecture itself should or can have. It is useless to try to reply to such questions. What needs to be done, instead, is to trace the entire course of modern architecture with an eye to whatever cracks and gaps break up its compactness, and then to make a fresh start, without, however, elevating to the status of myth either the continuity of history or those separate discontinuities.
Manfredo Tafuri and Francesco Dal Co, *L'architettura contemporanea*, 1976

The great French architectural theorist Eugène-Emmanuel Viollet-le-Duc would compile his magnum opus of 1872, his *Entretiens sur l'architecture*, without once using the term space in a modern sense.¹ Twenty years later nothing could be further from the structuralism of Viollet-le-Duc's thought than the primacy given to space as an end in itself in August Schmarsow's *Das Wesen der architektonischen Schöpfung* (*The Essence of Architectural Creation*), first published in 1894.² Like many other theorists before him, Schmarsow would advance the primitive hut as the primordial shelter, only this time he would see it as a spatial matrix, or what he would call the *Raumgestalterin*, the creatress of space.³

To a greater extent perhaps than any other late nineteenth-century theorist, including the sculptor Adolf von Hildebrand, who gave primacy to kinetic vision, and Gottfried Semper, from whom Schmarsow derived his thesis, Schmarsow came to see the evolution of architecture as the progressive unfolding of man's feeling for space, what he called *Raumgefühl*. Between 1893 and 1914 Schmarsow's identification of space as the driving principle behind all architectural form coincides with the evolving space-time models of the universe as these were successively adduced by Nikolai Ivanovich Lobachevsky, Georg Riemann, and Albert Einstein. As we know, such paradigms would come to be deployed early in this century to rationalize in various ways the appearance of dynamic spatial form in the field of avant-gardist art.⁴ This conjunction was reinforced through the experience of speed and the actual transformation of space-time in an everyday sense, due to the mechanical inventions of the last half of the century: the familiar Futurist technology of the train, the transatlantic liner, the car, and the plane.

Space has since become such an integral part of our thinking about architecture that we are practically incapable of thinking about it at all without putting our main emphasis on the spatial displacement of the subject in time. This quintessentially modern viewpoint has clearly underlain innumerable texts treating the intrinsic nature of modern architecture, ranging from Sigfried Giedion's *Space, Time and Architecture* of 1941 to Cornelis van de Ven's *Space in Architecture* of 1978. As van de Ven shows, the idea of space established a new concept that

not only overcame eclecticism through a relativizing of style, but also gave priority to the spatio-plastic unity of interior and exterior space and to the nonhierarchical assimilation of all instrumental forms, irrespective of their scale or mode of address, into one continuous space-time experience.

Without wishing to deny the volumetric character of architectural form, this study seeks to mediate and enrich the priority given to space by a reconsideration of the constructional and structural modes by which, of necessity, it has to be achieved. Needless to say, I am not alluding to the mere revelation of constructional technique but rather to its expressive potential. Inasmuch as the tectonic amounts to a poetics of construction it is art, but in this respect the artistic dimension is neither figurative nor abstract. It is my contention that the unavoidably earthbound nature of building is as tectonic and tactile in character as it is scenographic and visual, although none of these attributes deny its spatiality. Nevertheless we may assert that the built is first and foremost a construction and only later an abstract discourse based on surface, volume, and plan, to cite the "Three Reminders to Architects" in Le Corbusier's *Vers une architecture* of 1923.⁵ One may also add that building, unlike fine art, is as much an everyday experience as it is a representation and that the built is a thing rather than a sign, even if, as Umberto Eco once remarked, as soon as one has an object of "use" one necessarily has a sign that is indicative of this use.

From this point of view, we may claim that type form—the received "what" deposited by the lifeworld—is as much a precondition for building as craft technique, however much it may remain open to inflection at different levels. Thus we may claim that the built invariably comes into existence out of the constantly evolving interplay of three converging vectors, the *topos*, the *typos*, and the *tectonic*. And while the tectonic does not necessarily favor any particular style, it does, in conjunction with site and type, serve to counter the present tendency for architecture to derive its legitimacy from some other discourse.

This reassertion of the tectonic derives in part from Giorgio Grassi's critical polemic as this was advanced in his essay "Avant Garde and Continuity" of 1980, in which he wrote:

As far as the architectural vanguards of the Modern Movement are concerned, they invariably follow in the wake of the figurative arts. . . . Cubism, Suprematism, Neo-plasticism, etc., are all forms of investigation born and developed in the realm of the figurative arts, and only as a second thought carried over into architecture as well. It is actually pathetic to see the architects of that "heroic" period, and the best among them, trying with difficulty to accommodate themselves to these "isms"; experimenting in a perplexed manner because of their fascination with the new doctrines, measuring them, only later to realize their ineffectuality.⁶

Despite the retardataire implications of this Lukacsian critique, Grassi's observation nonetheless challenges the prestige that still seems to attach itself to the figurative in architecture. This challenge comes at a time when architecture appears to oscillate uneasily between a deconstructive aestheticization of its traditional modus operandi and a reassertion of its liberative capacity as a critical form. It is perhaps a measure of Grassi's professional alienation that his work remains somewhat hermetic and indeed paradoxically removed, when built, from the poetics of craft construction. This is all the more inexplicable given the care

that he takes in developing the constructional details of his work (fig. 1.1). No one perhaps has made a more judicious assessment of the contradictory aspects of Grassi's architecture than the Catalan critic Ignasi de Sola Morales:

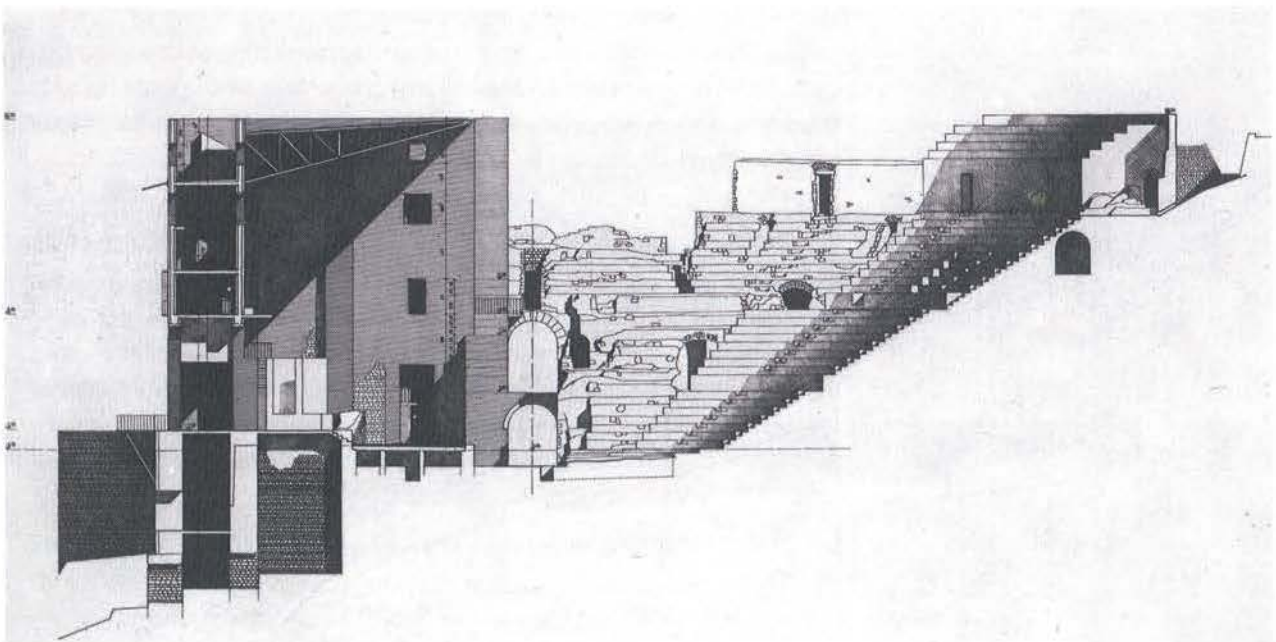
Architecture is posited as a craft, that is to say, as the practical application of established knowledge through rules of the different levels of intervention. Thus, no notion of architecture as problem-solving, as innovation, or as invention ex novo, is present in showing the permanent, the evident, and the given character of knowledge in the making of architecture.

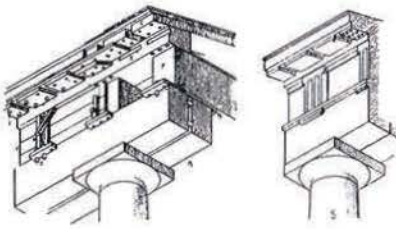
... The work of Grassi is born of a reflection upon the essential resources of discipline, and it focuses upon specific media which determine not only aesthetic choices but also the ethical content of its cultural contribution. Through these channels of ethical and political will, the concern of the Enlightenment ... becomes enriched in its most critical tone. It is not solely the superiority of reason and the analysis of form which are indicated, but rather, the critical role (in the Kantian sense of the term), that is, the judgement of values, the very lack of which is felt in society today. ... In the sense that his architecture is a meta-language, a reflection on the contradictions of his own practice, his work acquires the appeal of something that is both frustrating and noble.⁷

Etymology

Greek in origin, the term tectonic derives from the word *tekton*, signifying carpenter or builder. The corresponding verb is *tektainomai*. This in turn is related to the Sanskrit *taksan*, referring to the craft of carpentry and to the use of the axe. Remnants of a similar term can be found in Vedic poetry, where it again refers to carpentry. In Greek it appears in Homer, where it alludes to the art of construction in general. The poetic connotation of the term first appears in Sappho, where the *tekton*, the carpenter, assumes the role of the poet. In general, the

1.1
Giorgio Grassi, restoration and reconstruction
of the Roman theater of Sagunto, Valencia,
1985. Cross section.





1.2

Auguste Choisy, the derivation of the Doric order from timber construction, from *Histoire de l'architecture*, 1899.

term refers to an artisan working in all hard materials except metal. In the fifth century B.C. this meaning undergoes further evolution, from something specific and physical, such as carpentry, to a more generic notion of making, involving the idea of *poesis*. In Aristophanes it would seem that the notion is even associated with machination and the creation of false things, a transformation that would appear to correspond to the passage from pre-Socratic philosophy to Hellenism. Needless to say, the role of the *tekton* leads eventually to the emergence of the master builder or *architekton*.⁸ That the term would eventually aspire to an aesthetic rather than a technological category has been remarked on by Adolf Heinrich Borbein in his 1982 philological study:

*Tectonic becomes the art of joinings. "Art" here is to be understood as encompassing tekne, and therefore indicates tectonic as assemblage not only of building parts but also of objects, indeed of artworks in a narrower sense. With regard to the ancient understanding of the word, tectonic tends toward the construction or making of an artisanal or artistic product. . . . It depends much more upon the correct or incorrect applications of the artisanal rules, or the degree to which its usefulness has been achieved. Only to this extent does tectonic also involve judgement over art production. Here, however, lies the point of departure for the expanded clarification and application of the idea in more recent art history: as soon as an aesthetic perspective—and not a goal of utility—is defined that specifies the work and production of the tekton, then the analysis consigns the term "tectonic" to an aesthetic judgement.*⁹

The first architectural use of the term in German dates from its appearance in Karl Otfried Müller's *Handbuch der Archäologie der Kunst* (Handbook of the Archaeology of Art), published in 1830, wherein he defines *tektonische* as applying to a series of art forms "such as utensils, vases, dwellings and meeting places of men, which surely form and develop on the one hand due to their application and on the other due to their conformity to sentiments and notions of art. We call this string of mixed activities tectonic; their peak is architecture, which mostly through necessity rises high and can be a powerful representation of the deepest feelings." In the third edition of his study Müller remarks on the specifically junctional or "dry" jointing implications of the term. "I did not fail to notice that the ancient term *tektones*, in specialized usage, refers to people in construction or cabinet makers, not however, to clay and metal workers; therefore, at the same time, it takes into account the general meaning, which lies in the etymology of the word."¹⁰

In his highly influential *Die Tektonik der Hellenen* (The Tectonic of the Hellenes), published in three volumes between 1843 and 1852, Karl Bötticher would make the seminal contribution of distinguishing between the *Kernform* and the *Kunstform*; between the core form of the timber rafters in a Greek temple and the artistic representation of the same elements as petrified beam ends in the triglyphs and metopes of the classical entablature (fig. 1.2). Bötticher interpreted the term tectonic as signifying a complete system binding all the parts of the Greek temple into a single whole, including the framed presence of relief sculpture in all its multifarious forms.

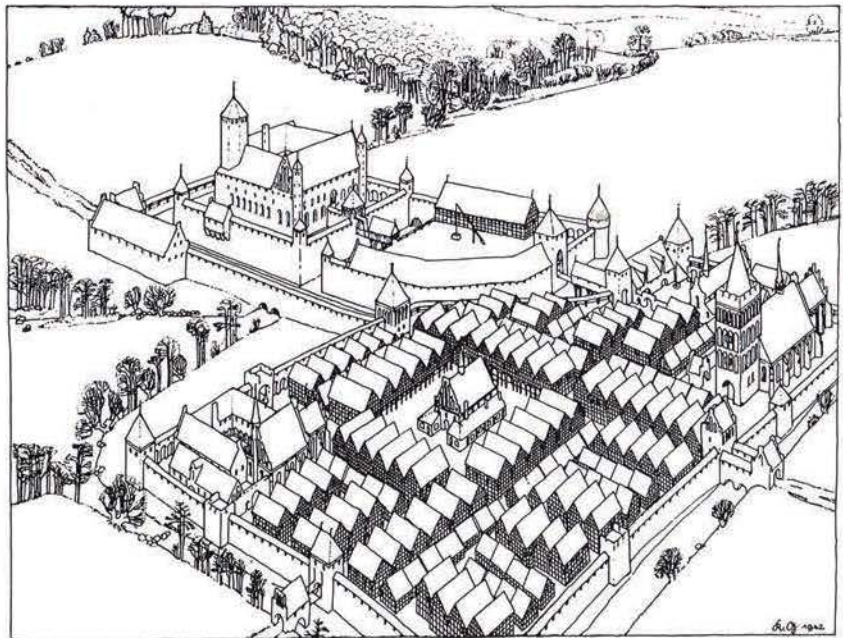
Influenced by Müller, Gottfried Semper would endow the term with equally ethnographic connotations in his epoch-making theoretical departure from the Vitruvian triad of *utilitas*, *fermitas*, and *venustas*. Semper's *Die vier Elemente der*

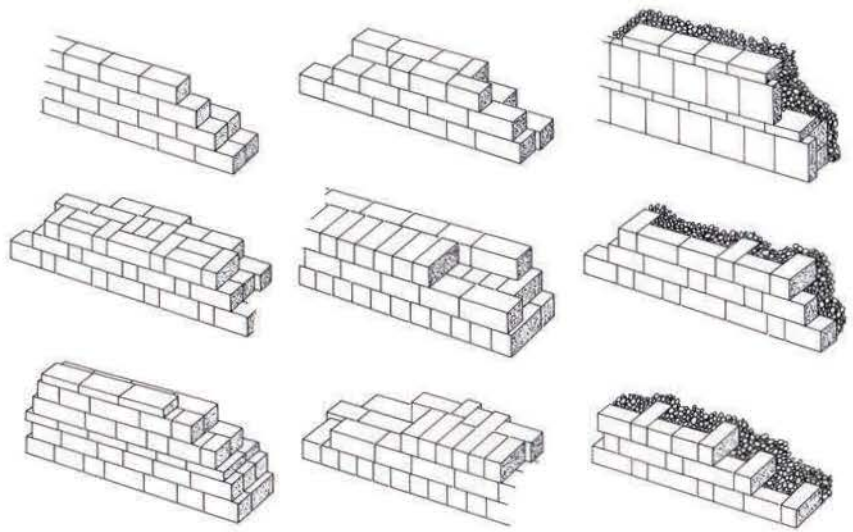
Baukunst (Four Elements of Architecture), published in 1851, indirectly challenged the neoclassic primitive hut as posited by the Abbé Laugier in his *Essai sur l'architecture* of 1753.¹¹ Based in part on an actual Caribbean hut that he saw in the Great Exhibition of 1851, Semper's primordial dwelling was divided into four basic elements: (1) the earthwork, (2) the hearth, (3) the framework/roof, and (4) the lightweight enclosing membrane. On the basis of this taxonomy Semper would classify the building crafts into two fundamental procedures: the *tectonics* of the frame, in which lightweight, linear components are assembled so as to encompass a spatial matrix, and the *stereotomics* of the earthwork, wherein mass and volume are conjointly formed through the repetitious piling up of heavyweight elements. That this last depends upon load-bearing masonry, whether stone or mud brick, is suggested by the Greek etymology of stereotomy, from *stereos*, solid, and *tomia*, to cut. This tectonic/stereotomic distinction was reinforced in German by that language's differentiation between two classes of wall; between *die Wand*, indicating a screenlike partition such as we find in wattle and daub infill construction, and *die Mauer*, signifying massive fortification.¹² This distinction will find a certain correspondence in Karl Gruber's 1937 reconstruction of a typical German medieval city, which illustrates the difference between heavyweight battlements built of masonry and lightweight residential fabric framed in wood and filled with wattle and daub (*Fachwerkbau*) (fig. 1.3).¹³

This distinction between light and heavy reflects a more general differentiation in terms of material production, wood construction displaying an affinity for its tensile equivalent in terms of basketwork and textiles, and stonework tending toward its substitution as a compressive material by brickwork or *pisé* (rammed earth) and later by reinforced concrete. As Semper was to point out in his *Stoffwechseltheorie*, the history of culture manifests occasional transpositions in which the architectonic attributes of one mode are expressed in another for the

1.3

Karl Gruber, reconstruction of a typical medieval city, 1937.





sake of retaining traditional symbolic value, as in the case of the Greek temple, where stone is cut and laid in such a way as to reinterpret the form of the archetypal timber frame. In this regard we need to note that masonry, when it does not assume the form of a conglomerate as in *pisé* construction, that is to say when it is bonded into coursework, is also a form of weaving, to which all the various traditional masonry bonds bear testimony (fig. 1.4).¹⁴ The woven overlapping thin tiles or *bóveda* of traditional Catalan vaulting point to the same end (fig. 1.5).

The general validity of Semper's *Four Elements* is borne out by vernacular building throughout the world, even if there are cultures where the woven vertical screen wall does not exist or where the woven wall is absorbed, as it were, into the roof and frame, as in, say, the North American Mandan house (fig. 1.6). In African tribal cultures the enclosing vertical screen covers a wide range of expression, from primitive infill walls, plastered on the inside only, as in the Gogo houses of Tanzania (fig. 1.7), to precisely woven wall mats that line the exterior of the chief's hut, as we find in Kuba culture. Moreover according to climate, custom, and available material the respective roles played by tectonic and stereotomic form vary considerably, so that the primal dwelling passes from a condition in which the earthwork is reduced to point foundations, as in the boulder footings of the traditional Japanese house (fig. 1.8), to a situation in which ste-

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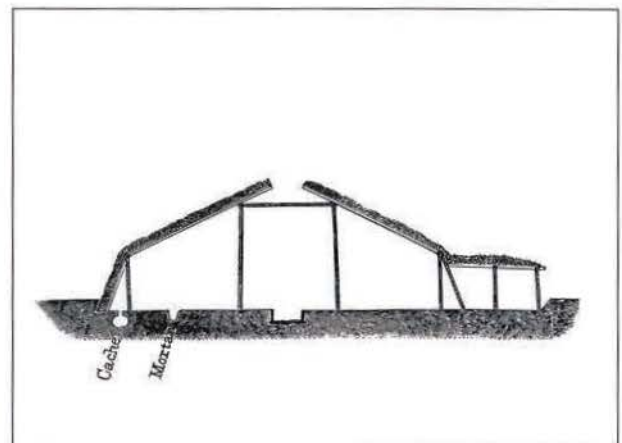
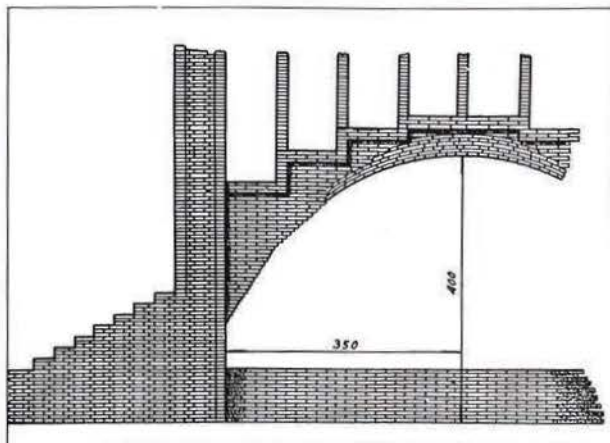
Methods of Roman brick bonding.

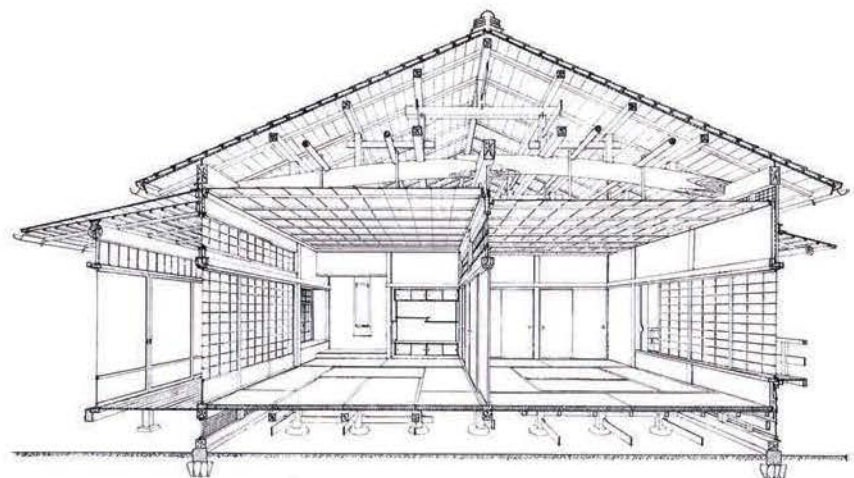
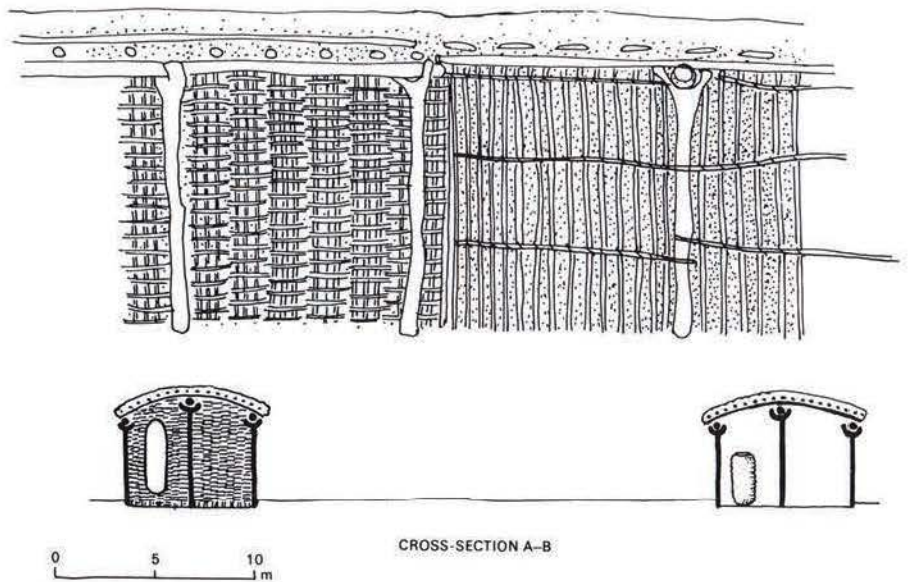
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Antoni Gaudí, brick and Catalan vaulting in the Casa Vicens, Barcelona, 1878–1880.

1.6

Mandan house, American Indian, section.





1.7
Gogo houses of Tanzania, detail of infill walls.

1.8
Traditional Japanese one-story house.

reotomic walls are extended horizontally to become floors and roofs, made up of the same material although reinforced with brushwood or basketwork (fig. 1.9). Alternatively the basic cell is covered by a vault of the same material, both techniques being equally prevalent in North African, Cycladic, and Middle Eastern cultures.

It is characteristic of our secular age that we should overlook the cosmic associations evoked by these dialogically opposed modes of construction; that is to say the affinity of the frame for the immateriality of sky and the propensity of mass form not only to gravitate toward the earth but also to dissolve in its substance. As the Egyptian architect Hassan Fathy was to point out, this is never more evident than in mud brick construction, where the walls tend to fuse with the earth once they fall into ruin and disuse. However, untreated wood is equally

ephemeral when exposed to the elements, as opposed to a well-bedded stone foundation that tends to endure across time and thus to mark the ground in perpetuity.¹⁵

Topography

No one has argued more persuasively as to the cosmogonic implications of the earthwork than the Italian architect Vittorio Gregotti, who in 1983 wrote:

The worst enemy of modern architecture is the idea of space considered solely in terms of its economic and technical exigencies indifferent to the ideas of the site.

... Through the concept of the site and the principle of settlement, the environment becomes [on the contrary] the essence of architectural production. From this vantage point, new principles and methods can be seen for design. Principles and methods that give precedence to the siting in a specific area. This is an act of knowledge of the context that comes out of its architectural modification. The origin of architecture is not in the primitive hut, or the cave or the mythical "Adam's House in Paradise."

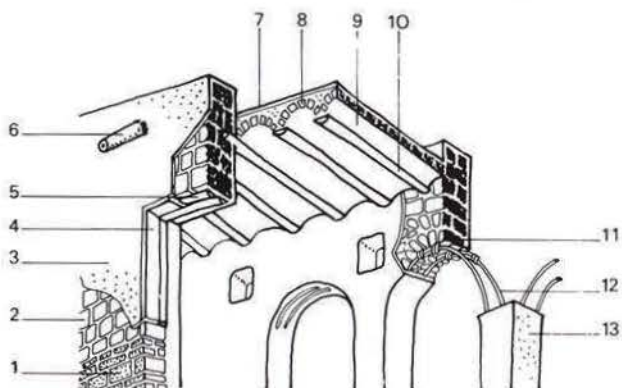
Before transforming a support into a column, a roof into a tympanum, before placing stone on stone, man placed the stone on the ground to recognize a site in the midst of an unknown universe: in order to take account of it and modify it. As with every act of assessment this one required radical moves and apparent simplicity. From this point of view, there are only two important attitudes to the context. The tools of the first are mimesis, organic imitation and the display of complexity. The tools of the second are the assessment of physical relations, formal definition and interiorization of complexity.¹⁶

It is difficult to find a more didactic modern example of this last than the acknowledged masterwork of the Greek architect Dimitris Pikionis. I have in mind his Philopapou hillside park, laid in place during the second half of the 1950s on a site adjacent to the Acropolis in Athens (fig. 1.10). In this work, as Alexander Tzonis and Liane Lefaivre have remarked, Pikionis created a topographic continuum that was removed from any kind of technological exhibitionism. This serpentine causeway, passing across an undulating rock-strewn site, constituted, in essence, a stone tapestry, bonded into the ground through irregularly coursed pavers, furnished with occasional seats, and studded here and there with iconic signs.¹⁷ Collaged rather than designed, it reinterprets the *genius loci* as a mythic

1.9

Traditional construction from the towns of Mزاب in Algeria:

1. masonry foundation walls
2. mud brick
3. *timchent* rendering
4. smooth rendering
5. palmwood lintel
6. clay gargoyle
7. *timchent* roof finish
8. small stone vaults
9. *timchent* rendering
10. palm branch beams
11. stone arch
12. palm nervures centering





1.10

Dimitris Pikionis, detail of park paving, Philopapou Hill, Athens, 1951–1957.

narrative, part Byzantine, part pre-Socratic, a promenade to be experienced as much by the body as by the eyes. That this was always central to Pikionis's sensibility is evident from a 1933 essay entitled "A Sentimental Topography":

*We rejoice in the progress of our body across the uneven surface of the earth and our spirit is gladdened by the endless interplay of the three dimensions that we encounter with every step. . . . Here the ground is hard, stony, precipitous, and the soil is brittle and dry. There the ground is level; water surges out of mossy patches. Further on, the breeze, the altitude and the configuration of the ground announce the vicinity of the sea.*¹⁸

Pikionis's work testifies to the fact that the earthwork tends to transcend our received perceptions about both aesthetics and function, for here the surface of the ground is kinetically experienced through the gait, that is to say through the locomotion of the body and the sensuous impact of this movement on the nervous system as a whole. There is moreover, as Pikionis reminds us, the "acoustical" resonance of the site as the body negotiates its surface. One recalls at this juncture Steen Eiler Rasmussen's *Experiencing Architecture* and the remarkable chapter entitled "Hearing Architecture," where he notes the all but imperceptible acoustical character of built form.¹⁹ Rasmussen reminds us that the spatial reflection or absorption of sound immediately affects our psychological response to a given volume, so that we may find it warm or cold according to its particular resonance rather than its appearance. Similar psycho-acoustical effects have been remarked on by Ulrich Conrads and Bernhard Leitner in a 1985 essay in which they comment on the spiritual aura evoked by the reverberation time of the Taj Mahal and, rather coincidentally, on the way in which Mediterranean vernacular forms appear to be suited to the articulation of certain diphthongs and vowels and not others, with the result that such dwellings prove unsuitable as vacation homes for people speaking northern languages.²⁰ That even formal integrity may depend in part on acoustical effect is confirmed by Luis Barragán's San Cristóbal horse farm realized in the suburbs of Mexico City in 1967, wherein the central reflecting pool and the sound of its water fountain jointly assure the unity of the whole.

Corporeal Metaphor

The capacity of the being to experience the environment bodily recalls the notion of the corporeal imagination as advanced by the Neapolitan philosopher Giambattista Vico in his *Scienza nuova* of 1730. Against the rationalism of Descartes, Vico argued that language, myth, and custom are the metaphorical legacy of the species brought into being through the self-realization of its history, from the first intuitions deriving from man's primordial experience of nature to the long haul of cultural development running across generations. In his 1985 study Michael Mooney had this to say about Vico's conception of this metaphorical process:

In a moment of stirring oratory, Vico held, when the beauty of a conceit overwhelms the spirit as its truth impresses the mind, both speaker and listener are caught up in a rush of ingenuity, each making connections that were not made before, their spirits fused by the freshness of the language, their minds and finally their wills made one. So here, too, analogously to be sure, the first dim seeing of Jove is an event in which body through language becomes conscious, the poetry of a thundering sky evoking in response the poetry of giants made men, struck dumb with awe.

What occurs is an exchange in metaphor, the image of providence in a thundering heaven passing into the bodies of awestruck men. The physical universe of deus artifex, itself a poem, everywhere written in conceits, becomes in the bodies of clustered men a poet, henceforth a maker of self; the passive ingenuity of the universe comes to life in the mind (however unrefined it yet is) and the spirit (however passionate and violent it may be) of man, and man, now standing erect, becomes the artifex of his own existence.²¹

Vico's concept of the enactment and reenactment of man through history is not only metaphorical and mythical but also corporeal, in that the body reconstitutes the world through its tactile appropriation of reality. This much is suggested by the psycho-physical impact of form upon our being and by our tendency to engage form through touch as we feel our way through architectonic space. This propensity has been remarked on by Adrian Stokes, in discussing the impact of time and touch on the weathering of stone.

Hand-finish is the most vivid testimony of sculpture. People touch things according to their shape. A single shape is made magnificent by perennial touching. For the hand explores, all unconsciously to reveal, to magnify an existent form. Perfect sculpture needs your hand to communicate some pulse and warmth, to reveal subtleties unnoticed by the eye, needs your hand to enhance them. Used, carved stone, exposed to the weather, records on its concrete shape in spatial, immediate, simultaneous form, not only the winding passages of days and nights, the opening and shutting skies of warmth and wet, but also the sensitiveness, the vitality even, that each successive touching has communicated.²²

That such a purview stands in total opposition to all our more recent attempts to impose upon cultural experience a consciously distanced and exclusively semiotic character has been remarked on by Scott Gartner.

The philosophical alienation of the body from the mind has resulted in the absence of embodied experience from almost all contemporary theories of

meaning in architecture. The overemphasis on signification and reference in architectural theory has led to a construal of meaning as an entirely conceptual phenomenon. Experience, as it relates to understanding, seems reduced to a matter of the visual registration of coded messages—a function of the eye which might well rely on the printed page and dispense with the physical presence of architecture altogether. The body, if it figures into architectural theory at all, is often reduced to an aggregate of needs and constraints which are to be accommodated by methods of design grounded in behavioral and ergonomic analysis. Within this framework of thought, the body and its experience do not participate in the constitution and realization of architectural meaning.²³

Metaphor, rather than being solely a linguistic or rhetorical trope, constitutes a human process by which we understand and structure one domain of experience in terms of another of a different kind.²⁴ This concept surely lies behind Tadao Ando's characterization of the *Shintai* as a sentient being that realizes itself through lived-in space.

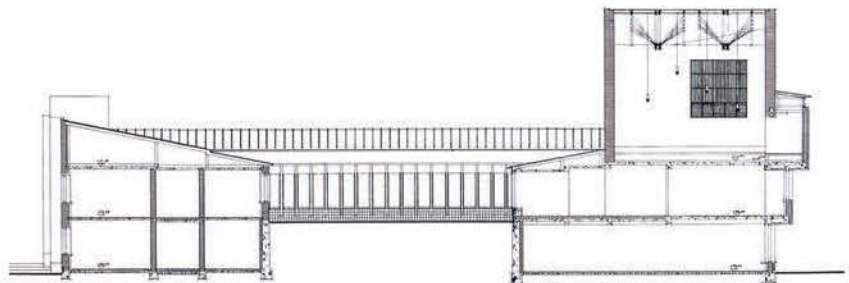
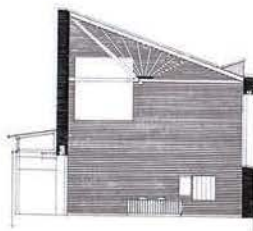
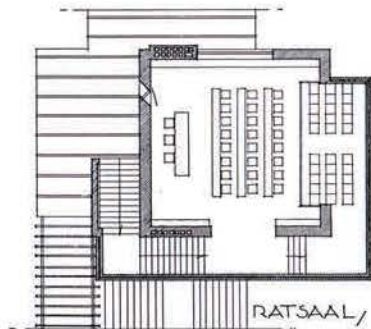
Man articulates the world through his body. Man is not a dualistic being in whom spirit and the flesh are essentially distinct, but a living corporeal being active in the world. The "here and now" in which this distinct body is placed is what is first taken as granted, and subsequently a "there" appears. Through a perception of that distance, or rather the living of that distance, the surrounding space becomes manifest as a thing endowed with various meanings and values. Since man has an asymmetrical physical structure with a top and a bottom, a left and a right, and a front and a back, the articulated world, in turn, naturally becomes a heterogeneous space. The world that appears to man's senses and the state of man's body become in this way interdependent. The world articulated by the body is a vivid, lived-in space.

The body articulates the world. At the same time, the body is articulated by the world. When "I" perceive the concrete to be something cold and hard, "I" recognize the body as something warm and soft. In this way the body in its dynamic relationship with the world becomes the *shintai*. It is only the *shintai* in this sense that builds or understands architecture. The *shintai* is a sentient being that responds to the world.²⁵

This concept parallels similar arguments advanced by Schmarsow and later by Merleau-Ponty,²⁶ particularly Schmarsow's thesis that our concept of space is determined by the frontalized progression of the body through space in depth. Similar spatio-corporeal connotations are evident in Adolphe Appia's disquisition on the interplay between body and form on the stage, in his *L'Oeuvre d'art vivant* of 1921.²⁷ A similar phenomenological awareness is also evident in Alvar

1.11

Alvar Aalto, Säynätsalo Town Hall, 1949–1952. Plan, section through council chamber, and longitudinal section.



1.12

Alvar Aalto, Säynätsalo Town Hall, stair to the council chamber.

1.13

Ogre's Night at the turn of the year, Kyushu.
Ritual raising and burning of the *hashira*.



Aalto's Säynätsalo Town Hall (1952) where, from entry to council chamber, the subject encounters a sequence of contrasting tactile experiences (fig. 1.11). Thus, from the stereotomic mass and relative darkness of the entry stair (fig. 1.12), where the feeling of enclosure is augmented by the tactility of the brick treads, one enters into the bright light of the council chamber, the timber-lined roof of which is carried on fanlike, wooden trusses that splay upward to support concealed rafters above a boarded ceiling. The sense of arrival occasioned by this tectonic display is reinforced by various nonretinal sensations, from the smell of polished wood to the floor flexing under one's weight together with the general destabilization of the body as one enters onto a highly polished surface.

Ethnography

Semper's theory of tectonics was profoundly rooted in the emerging science of ethnography. Like Sigfried Giedion after him, Semper tried to regroup the practice of architecture in what Giedion would call "the eternal present," in his 1964 study of this title. This search for a timeless origin is directly evoked in the Prolegomenon to *Der Stil* where, in a manner uncannily reminiscent of Vico, Semper writes of the cosmogonic drive as an archaic impulse continually changing across time (fig. 1.13).

Surrounded by a world full of wonder and forces, whose law man may divine, may want to understand but never decipher, which reaches him only in a few fragmentary harmonies and which suspends his soul in a continuous state of unresolved tension, he himself conjures up the missing perfection in play. He makes himself a tiny world in which the cosmic law is evident within strict limits, yet complete in itself and perfect in this respect; in such play man satisfies his cosmogonic instinct.

His fantasy creates these images, by displaying, expanding, and adapting to his mood the individual scenes of nature before him, so orderly arranged that he believes he can discern in the single event the harmony of the whole and for short moments has the illusion of having escaped reality. Truly this enjoyment of nature is not very different from the enjoyment of art, just as the beauty of nature . . . is assigned to the general beauty of art as a lower category.

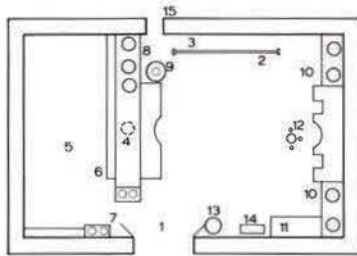
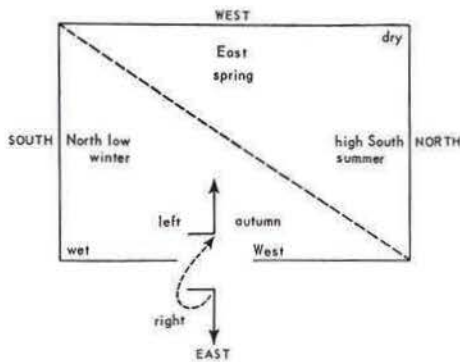


However, this artistic enjoyment of nature's beauty is by no means the most naive or earliest manifestation of the artistic instinct. On the contrary, the former is undeveloped in simple, primitive man, whereas he does already take delight in nature's creative law as it gleams through reality in the rhythmical sequence of space and time movements, is found once more in the wreath, the bead necklace, the scroll, the circular dance and the rhythmic tone that attends it, the beat of an oar, and so on. These are the beginnings out of which music and architecture grew; both are the highest purely cosmic nonimitative arts, whose legislative support no other art can forgo.²⁸

Although we cannot dwell here on all the ethnographic evidence that may be summoned in support of Semper's thesis, I will cite nonetheless two examples that testify to the way in which the two basic modes of building, the compressive mass and the tensile frame, have been deployed throughout time in such a way as to create a lifeworld that is cosmogonically encoded.



The first instance is taken from Pierre Bourdieu's 1969 study of the Berber house, in which he demonstrates how the entire domain is organized in terms of sectional displacement and material finish in such a way as to distinguish the *upper/dry/human* from the *lower/wet/animal* parts of the dwelling (fig. 1.14). On the opposing transverse axis the same space is ordered about a main entrance, invariably oriented toward the east, and a weaving loom that, in being set opposite the open door and the rising sun, is analogously seen as the sun of the interior. On the basis of this cosmic cross axis the house and its surroundings are divided into a homological hierarchy in which every value is counterbalanced by its opposite. Thus, the attributes of the external world are reversed on the interior; the southern exterior wall becomes the "northern" interior wall, and so on.



1.14

Berber house, seasonal orientation and internal/external inversion according to the cardinal points:

1. threshold
2. loom
3. rifle
4. *thigejdity*
5. stable
6. trough for oxen
7. water pitchers
8. jars of dried vegetables, etc.
9. hand mill
10. jars of grain
11. bench
12. *kanun*
13. large water jar
14. chest
15. back door

Associated with dawn, spring, fertility, and birth, the loom, before the "eastern" interior wall, is regarded as the female place of honor and is seen as the spiritual nexus of the dwelling. It is balanced by the male object of honor, namely the rifle, that is stacked close to the loom. That this symbolic system is reinforced by the construction itself is confirmed by Bourdieu's testimony.

In front of the wall opposite the door stands the weaving loom. This wall is usually called by the same name as the outside front wall giving onto the courtyard (tasga), or else the wall of the weaving-loom or opposite wall, since one is opposite it when one enters. The wall opposite this is called the wall of darkness, or of sleep, or of the maiden, or of the tomb. . . . One might be tempted to give a strictly technical explanation to these oppositions since the wall of the weaving-loom . . . receives the most light and the stone-flagged stable is, in fact, situated at a lower level than the rest. The reason given for the last is that the house is most often built perpendicularly with the contour lines in order to facilitate the flow of liquid-manure and dirty water. A number of signs suggest, however, that these oppositions are the center of a whole cluster of parallel oppositions, the necessity of which is never completely due to technical imperatives or functional requirements. In addition to all this, at the center of the dividing wall, between "the house of human beings" stands the main pillar, supporting the governing beam and all the framework of the house. Now this governing beam which connects the gables and spreads the protection of the male part of the house to the female part . . . is identified explicitly with the master of the house, whilst the main pillar on which it rests, which is the trunk of a forked tree . . . is identified with the wife . . . and their interlocking represents the act of physical union.²⁹

Bourdieu proceeds to show how this same symbolic system differentiates in a categorical way between the lower and upper parts of the house; that is, between the sunken, stone-flagged stable regarded as a space of darkness, fertility, and sexual intercourse and the upper dry, light space of human appearance, finished in polished cow dung.

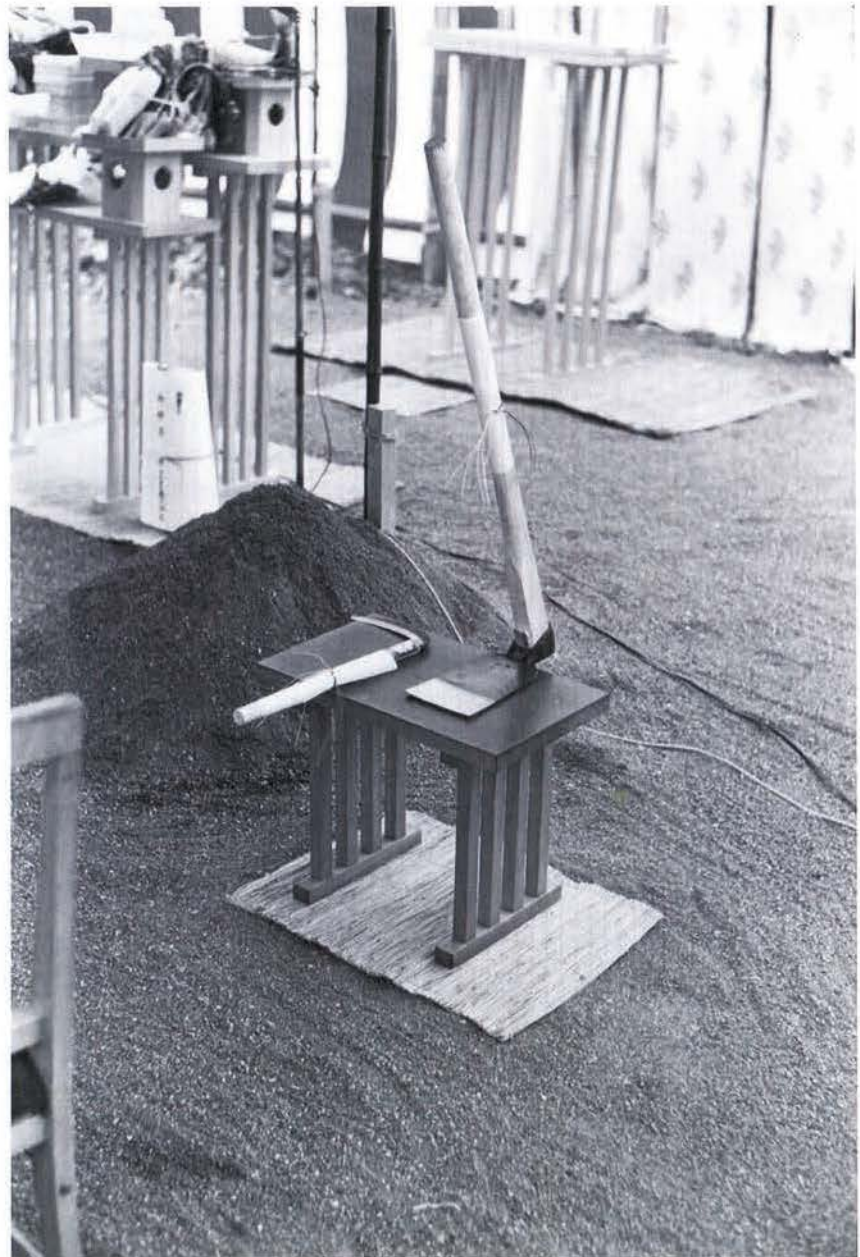
Our second example is drawn from Japanese culture, in which weaving and binding emerge from archaic time as the primary element in a number of agrarian renewal and ground-breaking rites that still survive today throughout the country (fig. 1.15). In an essay on these rituals, Gunter Nitschke shows how Japanese archaic land-taking/agricultural rites are invariably initiated by knotted or bound signs, known generically as *musubi*, from *musubu*, to bind (fig. 1.16).³⁰ Nitschke argues that building/binding as a cyclical activity takes priority over religion in the archaic creation of order out of chaos, citing by way of evidence the etymological origin of the word religion in the Latin verb *ligare*, to bind. In contrast to the Western monumental tradition with its dependence on the relative permanence of stereotomic mass, the archaic Japanese world was symbolically structured through ephemeral tectonic material, knotted grasses or rice straw ropes known as *shime-nawa*, literally "bound ropes" (fig. 1.17), or more elaborately through bound pillars of bamboo and reed called *hashira* (fig. 1.18). As Nitschke and others have shown, these Shinto prototectonic devices exercised a decisive influence on the evolution of Japanese sacred and domestic architecture through its various incarnations, from the earliest Shimmei shrines dating from the first century through to the seventeenth-century *shoin* and *chaseki* versions of Heian wooden construction. Due to the relative perishability of untreated wood, Japanese honorific structures were everywhere subject to cyclical

rebuilding, the most famous instance being the monumental Naiku and Geku precincts at Ise that, with their attendant buildings, are rebuilt in their entirety every twenty years. On these occasions a new shrine is built on the adjacent site of a previous shrine, this sacred domain having lain dormant over the intervening twenty-year period (fig. 1.19).

Aside from the evident differences separating stereotomic and tectonic construction in archaic building culture, two common factors may be seen as obtaining in both of these examples. The first is the primacy accorded to the woven as a place-making agent in so-called primitive cultures; the second is the universal presence of a nonlinear attitude toward time that guarantees, as it were, the cyclical renewal of an eternal present. This premodern seasonal perception of the temporal finds reflection in the fact that as late as a century and a half ago the

1.15

Ritual tools on display in the course of a Shinto ground-breaking ceremony.



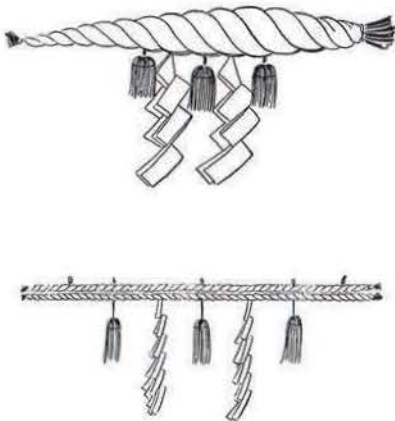


1.16

Musubi. Japanese knotted-grass land marking and land taking compared to the configuration of Western script.

1.17

Shime-nawa. The bound rice straw, apotropaic signs and talismans of Shinto culture.



Japanese day was not divided into twenty-four hours.³¹ Instead, it was broken down into six equal periods whose lengths varied according to the seasons of the year. Even after they were imported, in the sixteenth century, Western clocks had to be mechanically adjusted to suit the old system of time.

Confirming the preeminence that Semper would give to textiles as the first cosmogonic craft, Japanese building and place-making practices seem to have been interconnected throughout history. Thus, to a greater degree perhaps than in other cultures, metalinguistic forms and spatio-temporal rhythms are bound up with the act of building in Japan. That this culture is quite literally woven throughout is further substantiated by the dovetailing interrelationship of every conceivable element in the traditional Japanese house, from the standard tatami mat of woven rice straw construction (fig. 1.20) to the *kyo-ma* and *inka-ma* method of modular building.³²

Representational versus Ontological

The concept of layered transitional space as it appears in traditional Japanese architecture (fig. 1.21) may be related indirectly to the distinction that Semper draws between the *symbolic* and *technical* aspects of construction, a distinction that I have attempted to relate to the *representational* and *ontological* aspects of tectonic form: the difference, that is, between the skin that re-presents the composite character of the construction and the core of a building that is simultaneously both its fundamental structure and its substance. This difference finds a more articulated reflection in the distinction that Semper draws between the *ontological* nature of the earthwork, frame, and roof and the more *representational*, symbolic nature of the hearth and the infill wall. In my view, this dichotomy must be constantly rearticulated in the creation of architectural form, since each building type, technique, topography, and temporal circumstance brings about a different cultural condition. As Harry Mallgrave has suggested, Semper remained somewhat undecided as to the relative expressivity of structure and cladding, hesitating between the symbolic expressivity of construction as a thing itself—rationally modulated from both a technical and an aesthetic standpoint—and a symbolic elaboration of the cladding irrespective of its underlying structure. According to this last rubric, cladding is conceived as an overriding decorative or metalinguistic means for enhancing form so as to represent its status or latent value. Mallgrave posits a reconciliation of this split in which first the symbolic (the representational) and secondly the constructional (the ontological) are alternatively revealed and concealed. He writes:

Konrad Fiedler, in an 1878 essay that took its starting point in Semper's theory, suggested a peeling away of the dressing of antique architecture to exploit in modern works the wall's purely spatial possibility. This suggestion was taken



1.18

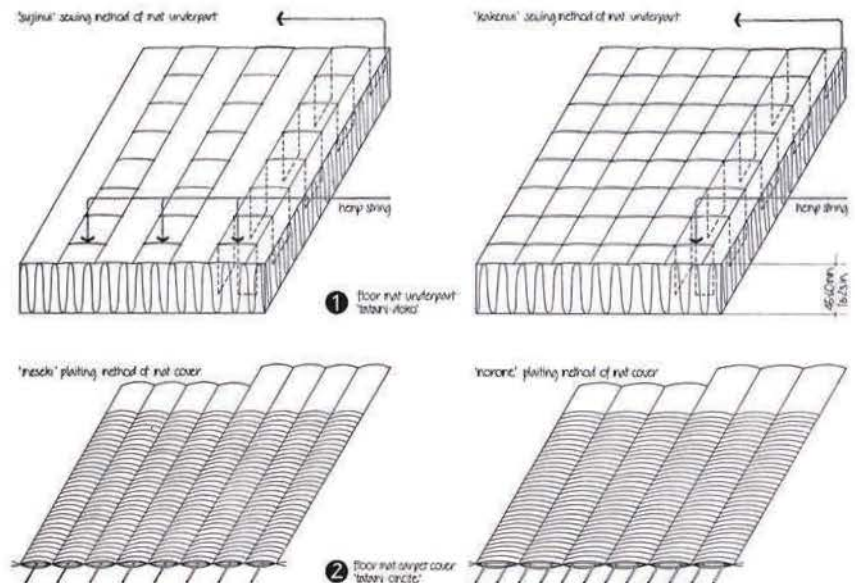
Typical *hashira* or bound column prepared for a Japanese agrarian renewal rite.

1.19

Naiku shrine, Ise. The two *temini* side by side; the one occupied and the other dormant.



Diagram showing typical methods of *tatami* mat construction.



up and greatly developed by August Schmarsow in a 1893 lecture, in which he specifically rejected the decorative attributes of the "art of dressing" (*Bekleidungskunst*) in favor of architecture's abstract capacity to "create space" (*Raumgestalterin*). The history of architecture is now to be analyzed as a "feeling for space" (*Raumgefühl*). Schmarsow's proposal was effectively canonized by the Dutch architect Hendrik Berlage in his important lecture of 1904, in which he defined architecture as the "art of spatial enclosure." In the addendum he attached to the publication of his lecture Berlage argued that the nature of the wall was surface flatness, and such constructive parts as the pillar and capitals should be assimilated into it without articulation. Semper's figurative masking of reality is transposed in Berlage's conception into a literal mask, in which surface ornamentation, materials, and structural components represent, as it were, their own constructive and nonconstructive roles as surface decoration.³³

This dialogue between the constructive and the nonconstructive would be denied by Adolf Loos in his somewhat biased interpretation of Semper's *Bekleidungstheorie*, which may explain why structure and construction play such a negligible role in his architecture. In his 1898 essay entitled "Das Prinzip der Bekleidung" (The Principle of Cladding) Loos stresses the primacy of cladding over all other considerations.³⁴ Even so, he will still insist on the authenticity of material, so that contrary to Renaissance practice he will argue against the use of stucco to imitate stone or, even more ironically, against the "graining" of wood so as to resemble wood of a higher quality. Loos's habitual application of thin marble revetment on the grounds that it was the cheapest wallpaper in the world, since it would never need to be replaced, tended to remove him, as his work would suggest, from Semper's initial preoccupation with the articulation of the frame and its infill. Like the dissimulating rhetoric of the *Gesamtkunstwerk* to which he was so opposed, Loos embraced an atectonic strategy in that his spatially dynamic *Raumplan* could never be clearly expressed in tectonic terms. Indeed, this masking of the actual fabric so that its substance cannot be discerned is perhaps the sole attribute linking Loos to his rival, the Secessionist architect Josef Hoffmann. The fact that Loos revered tradition makes this affinity all the more paradoxical, particularly since the aura of tradition emanating from

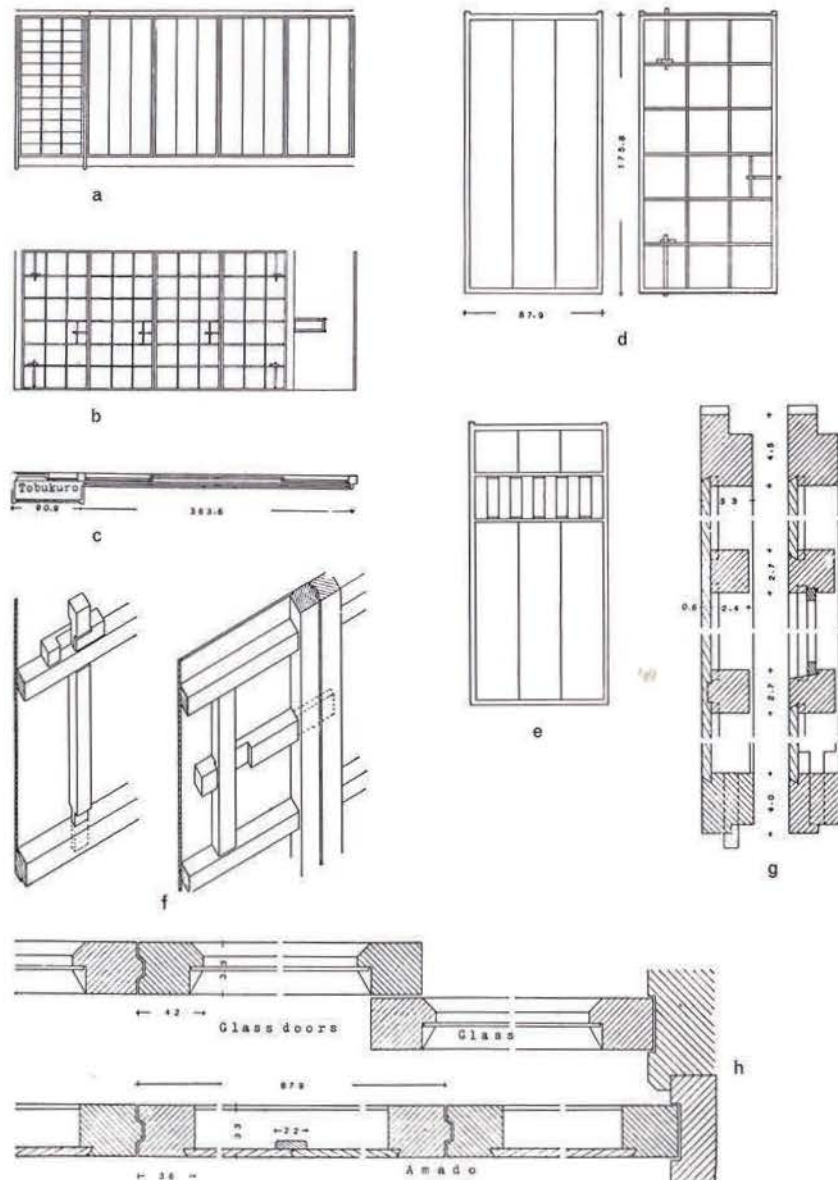
his marble cladding served to conceal as much as to reveal the harsh reality lying beyond the confines of the bourgeois house. At the same time, as Mallgrave remarks, Peter Behrens's 1910 dismissal of Semper as a positivist will prove quite decisive for modern building culture in that, strongly influenced by the counterthesis of Alois Riegl, the central preoccupations of German architects will shift away from the tectonic to the abstractly atectonic, bordering on the graphic, thereby assisting in that transformation which Robert Schmutzler will call the crystallization of the Jugendstil.³⁵

Tectonic/Atectonic

In a 1973 essay entitled "Structure, Construction, and Tectonics," Eduard Sekler defined the tectonic as a certain expressivity arising from the statical resistance of constructional form in such a way that the resultant expression could not be accounted for in terms of structure and construction alone.³⁶ Sekler proceeded

1.21

Details of traditional and modern *amado* sliding wooden shutters.



to show how similar combinations of structure and construction could become the occasion for a subtle variation in expression, as in the various corner details that appear in the American work of Mies van der Rohe. He went on to note that a given expression may be at variance with either the order of the structure or the method of construction, citing as an example the concealed flying buttresses of the Baroque. However, when structure and construction appear to be mutually interdependent, as in, say, Paxton's Crystal Palace of 1851, the tectonic potential of the whole would seem to derive from the eurythmy of its parts and the articulation of its joints. Even here, however, static capacity and representational form can be said to diverge, albeit imperceptibly, since Paxton's modular cast-iron columns of standard diameter are brought to sustain different loads by varying their wall thickness.

In a subsequent essay dealing with Josef Hoffmann's masterwork, the Stoclet House, built in Brussels in 1911 (fig. 1.22), Sekler would introduce the counter-concept of the *atectonic*, as made manifest in this instance by the cable moldings deployed throughout.

At the corners or any other places of juncture where two or more of these parallel mouldings come together, the effect tends towards a negation of the solidity of the built volumes. A feeling persists as if the walls had not been built up in a heavy construction but consisted of large sheets of thin material, joined at the corners with metal bands to protect the edges. . . . The visual result is very striking and atectonic in the extreme. "Atectonic" is used here to describe a manner in which the expressive interaction of load and support in architecture is visually neglected or obscured. . . . There are many other atectonic details at the Stoclet House. Heavy piers have nothing of adequate visual weight to support but carry a thin, flat roof as at the entrance and over the loggia on the roof terrace. . . . In this connection it is equally significant that windows are set flush into the fa-





1.22
Josef Hoffmann, Stoclet House, Brussels,
1911. Main hall.

1.23
Peter Behrens, AEG turbine factory, Berlin,
1909.

cedes, even slightly protruding, not in recesses which would betray the thickness of the wall.³⁷

Similar weightless effects can be found in a great deal of German architectural production at the beginning of this century, most notably perhaps in Peter Behrens's AEG turbine factory built in Berlin in 1909. Here, the massive Egyptoid corner bastions stop short of supporting the roof that otherwise appears to rest on them. In this unique work, tectonic and atectonic patently coexist; in the first instance, the ontologically tectonic, pin-jointed steel frames that run down Berlichingenstrasse, in the second the representationally atectonic corner bastions, of in situ concrete that, while supporting their own weight, pointedly fail to carry the oversailing cantilever of the roof (fig. 1.23).

It is ironic that this architectonic ambivalence should emerge in Behrens's symbolization of technological power, particularly since he envisaged architecture as serving power throughout history—the thesis advanced in his essay "What Is Monumental Art?" of 1908. Perhaps this psycho-cultural ambivalence arises directly out of his rather willful (*Kunstwollen*) attempt to render the factory shed as a kind of crypto-classical barn in order to signify what Ernst Jünger would later call the *Gestalt* of the worker—the "will to power" of the workers who had already been transformed from an agrarian labor force into a highly skilled proletariat, indentured in the service of the industrial *Kartel*.³⁸

Technology

There is perhaps no twentieth-century philosopher who has responded more profoundly to the cultural impact of technology than Martin Heidegger, and while there can be little doubt that there are reactionary aspects of his thought,

his work amounts to a fundamental break with positivism; above all, perhaps, through his notion of "thrownness," the idea that each generation has to confront its own destiny within the long trajectory of history.³⁹ At the same time he has articulated a number of specific insights that are of relevance to the arguments advanced here. The first of these concerns the topographic concept of the bounded domain or place, as opposed to the space endlessness of the megalopolis. This was first broached by him in an essay entitled "Building, Dwelling, Thinking" of 1954:

What the word for space Raum, Rum, designates is said by its ancient meaning. Raum means a place cleared or freed for settlement and lodging. A space is something that has been made room for, something that is cleared and free, namely within a boundary, Greek peras. A boundary is not that at which something stops, but, as the Greeks recognized, the boundary is that from which something begins its presencing. . . . Space is in essence that for which room has been made, that which is let into its bounds. That for which room is made is always granted and hence is joined, that is, gathered, by virtue of a location. . . . Accordingly spaces receive their being from locations and not from "space." . . . The space that is thus made by positions is space of a peculiar sort. As distance or "stadion" [in Greek] it is what the same word stadion means in Latin, a spatium, an intervening space or interval. Thus nearness and remoteness between men and things can become mere distance, mere intervals of intervening space. . . . What is more the mere dimensions of height, breadth, and depth can be abstracted from space as intervals. What is so abstracted we represent as the pure manifold of the three dimensions. Yet the room made by this manifold is also no longer determined by distances; it is no longer a spatium, but now no more than extensio—extension. But from space as extensio a further abstraction can be made, to analytic-algebraic relations. What these relations make room for is the possibility of the purely mathematical construction of manifolds with an arbitrary number of dimensions. The space provided for in this mathematical manner may be called "space," the "one" space as such. But in this sense "the" space, "space," contains no spaces and no places.⁴⁰

The implications of this for tectonic form are perhaps self-evident, namely the need for human institutions to be integrated with the topography in such a way as to offset the rapacity of development as an end in itself. For Heidegger the problem with technology does not reside in the benefits that it affords but in its emergence as a quasi-autonomous force that has "stamped" the epoch with its *Gestalt*. It is not primarily the environmentally degrading aspects of industrial technique that concern him, but rather the fact that technology has the tendency to transform everything, even a river, into a "standing reserve," that is to say, at one and the same time, into a source of hydroelectric power and an object of tourism.

For Heidegger the rootlessness of the modern world begins with the translation of the Greek experience into the edicts of the Roman imperium, as though the literal translation of Greek into Latin could be effected without their having had the same experience. Against this misunderstanding that culminates for him in the productionist philosophy of the machine age, Heidegger returns us, like his master Eduard Husserl, to the phenomenological presence of things in themselves.

*That which gives things their constancy and pith but is also at the same time the source of their particular mode of sensuous pressure—colored, resonant, hard, massive—is the matter in things. In this analysis of the thing as matter, form is already co-positing. What is constant in a thing, its consistency, lies in the fact that matter stands together with a form. The thing is formed matter.*⁴¹

To the extent that architecture remains suspended between human self-realization and the maximizing thrust of technology, it must of necessity become engaged in discriminating among different states and conditions; above all perhaps among the durability of a thing, the instrumentality of equipment, and the worldliness of human institutions. The tectonic presents itself as a mode by which to express these different states and thereby as a means for accommodating, through inflection, the various conditions under which different things appear and sustain themselves. Under this precept different parts of a given building may be rendered differently according to their ontological status. In a 1956 essay entitled "On the Origin of the Work of Art," Heidegger conceives of architecture as having the capacity not only of expressing the different materials from which it is made but also of revealing the different instances and modes by which the world comes into being.

*In fabricating equipment—e.g. an axe—stone is used and used up. It disappears into usefulness. The material is all the better and more suitable the less it resists perishing in the equipmental being of equipment. By contrast the temple-work, in setting up a world, does not cause the material to disappear, but rather causes it to come forth for the very first time and to come into the Open of the work's world. The rock comes to bear and rest and so first becomes rock; metals come to glitter and shimmer, colors to glow, tones to sing, the word to speak. All this comes forth as the work sets itself back into the massiveness and heaviness of stone, into the firmness and pliancy of wood, into the hardness and luster of metal, into the lighting and darkening of color, into the clang of tone and into the naming power of the word.*⁴²

This essay contains further insights that are of pertinence to the tectonic. The first turns on the related but etymologically distinct notion of *techne*, derived from the Greek verb *tikto*, meaning to produce. This term means the simultaneous existence of both art and craft, the Greeks failing to distinguish between the two. It also implies knowledge, in the sense of revealing what is latent within a work; that is to say it implies *aletheia*, or knowing in the sense of an ontological revealing. This revelatory concept returns us to Vico's *verum, ipsum, factum*, to that state of affairs in which knowing and making are inextricably linked; to a condition in which *techne* reveals the ontological status of a thing through the disclosure of its epistemic value. In this sense one may claim that knowledge and hence beauty are dependent upon the emergence of "thingness." All of this is categorically opposed to connoisseurship, where works of art are offered solely for aesthetic enjoyment or where alternatively by virtue of their curatorial preservation they are withdrawn from the world. Of this last Heidegger writes, "World-withdrawal and world-decay can never be undone. The works are no longer the same as they once were. It is they themselves, to be sure, that we encounter there, but they themselves are gone by."⁴³

Heidegger asserts a fertile and necessary opposition between the *artifice* of the world and the *natural* condition of the earth, realizing that the one is symbioti-

cally conditioned by the other and vice versa. *Measure* and *boundary* are two terms by which he tries to articulate this relationship. His thinking in this regard, combined with his later emphasis on dwelling, caring, and letting-be, have led a number of commentators to see him as a pioneer of "eco-philosophy."⁴⁴ Technology was disturbing to Heidegger inasmuch as he saw it as being devoid of any respect for the intrinsic nature of things. He considered that neither nature nor history nor man himself would be able to withstand the unworldliness of technology if it were released on a planetary scale.

Tradition and Innovation

The notion of mediating instrumental reason through an appeal to tradition, as an evolving matrix from within which the lifeworld is realized both materially and conceptually, is echoed by the Italian school of thought known as *pensiero debole*.⁴⁵ One of the key precepts in "weak thought" is the a priori value attached to the fragmentary. This seems to be particularly relevant to the practice of architecture in that the *métier* has no hope of being universally applied in the sense that technoscience achieves such an application. One has only to look at the spontaneous megalopolitan proliferation of our times to recognize the incapacity of the building industry, let alone architecture, to respond in any effective way. Where technology, as the maximization of industrial production and consumption, merely serves to exacerbate the magnitude of this proliferation, architecture as craft and as an act of place creation is excluded from the process.⁴⁶

Seen from this standpoint, the radically new, as an end in itself, loses its claim to perpetual validity, particularly when it is set against the "thrownness" of history. This *Geschick* as Heidegger calls it embodies not only a material condition, specific to a given time and place, but also the legacy of a particular historical tradition that, however much it may be assimilated, is always in the process of transforming itself through what Hans Georg Gadamer has characterized as the "fusion of horizons."⁴⁷ For Gadamer, critical reason and tradition are inextricably linked to each other in a hermeneutical circle in which the prejudices of a given cultural legacy have to be continually assessed against the implicit critique of "other" traditions. As Georgia Warnke has written: "it is not that Gadamer no longer identifies the dialectical or dialogical process with the possibility of an advance on the part of reason; it is rather that Gadamer refuses to foreclose this advance by projecting a point of absolute knowledge at which no further dialogic encounters can develop that rationality."⁴⁸

Such a transformational concept is necessarily opposed to the triumph of one universal method. It is, by definition, unstable and specific in a fragmentary sense. Unlike technoscience that regards the past as a series of obsolete moments along the ever-upward trajectory of hypothetical progress, the so-called human sciences cherish the lived past as an *Erlebnis* that is open to being critically reintegrated into the present. As Warnke puts it:

The way in which we anticipate the future defines the meaning that the past can have for us, just as the way in which our ancestors projected the future determines our own range of possibilities. Thus for Gadamer, Vico's formula entails that we understand history not simply because we make it but also because it has made us; we belong to it in the sense that we inherit its experience, project a

*future on the basis of the situation the past has created for us and act in light of our understanding of this past whether such understanding is explicit or not.*⁴⁹

This formulation seems to be echoed in the famous apodictic statement of the Portuguese architect Alvaro Siza that “architects don’t invent anything, they transform reality.”⁵⁰ Unlike fine art, all such transformations have to be rooted in the opacity of the lifeworld and come to their maturity over an unspecified period of time. The way in which such transformations are at once, however imperceptibly, transformed in their turn means that neither a hypostasized past nor an idealized future carries the conviction that they once had in the heyday of the Enlightenment. The decline of utopia denies the validity of the *novum* as an end in itself. As the Italian philosopher Gianni Vattimo puts it in his book *The End of Modernity*, once progress in either science or art becomes routine it is no longer new in the sense that it once was. He remarks, after Arnold Gehlen, that “progress seems to show a tendency to dissolve itself, and with it the value of the new as well, not only in the effective process of secularization, but even in the most extremely futuristic utopias.”⁵¹ While the crisis of the neo-avant-garde derives directly from this spontaneous dissolution of the new, critical culture attempts to sustain itself through a dialectical play across a historically determined reality in every sense of the term. One may even claim that, critique aside, critical culture attempts to compensate, in a fragmentary manner, for the manifest disenchantment of the world. The transformed, transforming real is thus constituted not only by the material circumstances obtaining at the moment of intervention but also by a critical intersubjective deliberation upon or about these conditions, both before and after the design and its realization. Material constraints aside, innovation is, in this sense, contingent upon a self-conscious rereading, remaking, and re-collection of tradition (*Andenken*), including the tradition of the new, just as tradition can only be revitalized through innovation. It is in this sense that we may come to conceive of Gehlen’s *post-histoire* as the domain of the “bad infinite,” to borrow Gadamer’s phrase.⁵²

Such a hermeneutical model presupposes a continual intersubjective self-realization on the part of the species and a kind of “cantonal” decentralization of power and representation in the field of politics, not to mention the imperative of raising the general level of education throughout society. Under such circumstances we might begin to entertain a possible convergence between Jürgen Habermas’s ideal speech situation, his concept of undistorted communication, and Gianni Vattimo’s formulation of hermeneutical legitimation as this ought to be applied to the realization of an architectural project. Of this last we find Vattimo writing in terms that seem uncommonly close to those of Habermas:

*If therefore, in architecture, as also in philosophy, in existence in general, we renounce any metaphysical, superior, transcendent legitimation (of the kind reaching ultimate truths, redemption of humanity, etc.), all that is left is to understand legitimation as a form of the creation of horizons of validity through dialogue, a dialogue both with the traditions to which we belong and with others.*⁵³

Irrespective of the inroads of the media, that is to say, of the distortions of mass communication that condition such a large sector of everyday life in the late twentieth century, Habermas’s “ideal speech situation” seems to be a prerequisite for an intelligent cultivation of the environment, for as every architect knows, without good clients it is impossible to achieve an architecture of quality.⁵⁴ Apart

from this, architectural practice has little choice but to embrace what one may call a double hermeneutic, one that, first, seeks to ground its practice in its own tectonic procedures, and second, turns to address itself to the social and to the inflection of what Hannah Arendt termed “the space of public appearance.”⁵⁵ Vittorio Gregotti reflects on these two aspects in the following terms:

*In the course of [the last] thirty years, during which the obsession with history emerged and developed, the belief has taken root that architecture cannot be a means for changing social relationships; but I maintain that it is architecture itself that needs, for its very production, the material represented by social relations. Architecture cannot live by simply mirroring its own problems, exploiting its own tradition, even though the professional tools required for architecture as a discipline can be found only within that tradition.*⁵⁶

Elsewhere Gregotti returns to the problem of land settlement, to his earlier preoccupation with the territory of architecture,⁵⁷ effectively touching on what may be the ultimate consequence of global mobilization: the simple fact that we have yet to arrive at any pattern of “motopian” land settlement that could be possibly regarded as *rational*.⁵⁸

*I believe that if there is a clear enemy to fight today, it is represented by the idea of an economic/technical space indifferent in all directions. This is now such a widespread idea that it seems almost objective. . . . It is a question of a shrewd, modernistic enemy capable of accepting the latest, most fashionable proposal, especially any proposal capable of selling every vain formalistic disguise, favorable only to myth, redundancy or uproar, as a genuine difference.*⁵⁹

With remarkable perspicacity Gregotti implies the manner in which tectonic detail may be combined with traditional type forms, modified in light of today's needs but free from gratuitous novelty, in such a way as to articulate the qualitative *difference* separating irresponsible speculation from critical practice. The difficulty of realizing this *répétition différente* is at no point underestimated by Gregotti.⁶⁰

After Auguste Perret's famous slogan “Il n'y a pas de détail dans la construction,” Gregotti maintains that detailing should never be regarded as an insignificant technical means by which the work happens to be realized. The full tectonic potential of any building stems from its capacity to articulate both the poetic and the cognitive aspects of its substance. This double articulation presupposes that one has to mediate between technology as a productive procedure and craft technique as an anachronistic but renewable capacity to reconcile different productive modes and levels of intentionality. Thus the tectonic stands in opposition to the current tendency to deprecate detailing in favor of the overall image. As a value it finds itself in opposition to the gratuitously figurative, since to the degree that our works are conceived as having a long duration “we must produce things that look as if they were always there.”⁶¹

In the last analysis, everything turns as much on exactly *how* something is realized as on an overt manifestation of its form. This is not to deny spatial ingenuity but rather to heighten its character through its precise realization. Thus the presencing of a work is inseparable from the manner of its foundation in the ground and the ascendancy of its structure through the interplay of support, span, seam, and joint—the rhythm of its revetment and the modulation of its

fenestration. Situated at the interface of culture and nature, building is as much about the ground as it is about built form. Close to agriculture, its task is to modify the earth's surface in such a way as to take care of it, as in Heidegger's concept of *Gelassenheit* or letting be. Hence the notion of "building the site," in Mario Botta's memorable phrase, is of greater import than the creation of free-standing objects, and in this regard building is as much about the topos as it is about technique. Furthermore, despite the privatization of modern society, architecture, as opposed to building, tends to favor the space of public appearance rather than the privacy of the *domus*.⁶² At the same time, it is as much about place-making and the passage of time as it is about space and form. Light, water, wind, and weathering, these are the agents by which it is consummated. Inasmuch as its continuity transcends mortality, building provides the basis for life and culture. In this sense, it is neither high art nor high technology. To the extent that it defies time, it is anachronistic by definition. Duration and durability are its ultimate values. In the last analysis it has nothing to do with immediacy⁶³ and everything to do with the unsayable. What was it Luis Barragán said? "All architecture which does not express serenity fails in its spiritual mission."⁶⁴ The task of our time is to combine vitality with calm.