

INTRODUCTION

As the title of this course suggests, the general aim of the Thresholds sequence is to cover the evolution of the modern movement in terms of specific issues or "breaks" in what is, after all, a widespread, varied and continuous wave of development. Given the time available, such a complex evolution seems to be capable of treatment only in terms of case studies. Each lecture is focused therefore about a particular theme or rupture in the long process of modernization which has made up the history of this century. Although my book Modern Architecture: A Critical History is used extensively as a reader for this course, I have attempted to structure the course about general historical developments, rather than concentrate to quite the same degree on the personalities of individual architects and theoreticians.

SCHEDULE

- Lecture 1: Classical Modernism and the Ecole des Beaux Arts: Garnier, Perret, etc., 1899-1925
(Jan. 27)
- Frampton, K., Modern Architecture: A Critical History (MA), Oxford University Press, New York, 1980. Chs. 1-3, pp. 12-40; Chs. 10, 11, pp. 100-108.
- Banham, R., Theory and Design in the First Machine Age (TD) Architectural Press, 1960. Chs. 1-3, pp. 13-43.
- Benevolo, L., History of Modern Architecture (HMA) MIT, Cambridge, 1977, Ch. 1, pp. 3-37; Ch. 10, pp. 320-342.
- Collins, P., Concrete - The Vision of a New Architecture, Faber & Faber, London, 1959. Ch. 7, pp. 153-287.
- Lecture 2: Transcendental Romanticism and the American Utopia: Richardson, Sullivan and Wright, 1880-1916
(Feb. 3)
- Frampton, K., MA, OUP, NY, 1980. Chs. 2, 3, pp. 51-63
- Benevolo, L. HMA, MIT, Cambridge, 1977. Ch. 8, pp. 219-250.
- Carpenter-Manson, G., Frank Lloyd Wright to 1910, Van Nostrand, New York, 1958. Section 2, pp. 138-202.
- Lecture 3: The Deutsche Werkbund: The Culture of the Kartel, 1898-1918
(Feb. 10)
- Frampton, K., MA, OUP, NY, 1980. Chs. 12, 13, pp. 109-122.
- Banham, R., TD, Architectural Press, London, 1960. Chs. 5, 6, pp. 68-87.
- Anderson, S., Peter Behrens and the New Architecture in Germany: 1900-1917 (unpublished doctoral thesis, Columbia University). For extracts see Oppositions Nos: 11, 21, 23.
- Lecture 4: The Industrial City and the Emergence of the Avant Garde: Burnham, Wagner, and Italian Futurism, 1886-1918
(Feb. 17)
- Frampton, K., MA, OUP, NY, 1980. Chs. 6, pp. 78-83; Ch. 7, pp. 84-89.
- Banham, R., TD, Architectural Press, London, 1960. Section 2, Chs. 8-10, pp. 99-137.
- Apollonio, U., Futurist Manifestos, Thames & Hudson, London, 1973. (General reference)
- Manieri-Elia, M., "Towards and 'Imperial City.' Daniel Burnham and the City Beautiful Movement" in The American City, MIT Press, 1970, pp. 1-142.

regular grid and is comprised of repetitive, in-fill modules, concrete blocks in the first instance and precast concrete wall units in the second, we may justly regard it as the outcome of universal civilization. Such a building system, comprising an in-situ concrete frame with prefabricated concrete in-fill elements, has indeed been applied countless times all over the developed world. However, the universality of this productive method, which includes, in this instance, patent glazing on the roof, is abruptly mediated when one passes from the optimal modular skin of the exterior to the far less optimal reinforced concrete shell vault spanning the nave. This last is obviously a relatively uneconomic mode of construction, selected and manipulated first for its direct associative capacity, that is to say, the vault signifies sacred space, and second for its multiple cross-cultural references. While the reinforced concrete shell vault has long since held an established place within the received tectonic canon of Western modern architecture, the highly configured section adopted in this instance is hardly familiar, and the only precedent for such a form, in a sacred context, is Eastern rather than Western, namely, the Chinese pagoda roof, cited by Utzon in his seminal essay, "Platforms and Plateaus" of 1963.¹⁶ Although the main Bagsvaerd vault spontaneously signifies its religious nature, it does so in such a way as to preclude an exclusively Occidental or Oriental reading of the code by which the public and sacred space is constituted. The intent of this expression is, of course, to secularize the sacred form by precluding the usual set of semantic religious references and thereby the corresponding range of automatic responses that usually accompany them. This is arguably a more appropriate way of rendering a church in a highly secular age, where any symbolic allusion to the ecclesiastic usually degenerates immediately into the vagaries of kitsch.

4. The Resistance of the Place Form

The Megalopolis recognized as such in 1961 by the geographer Jean Gottman¹⁷ continues to proliferate throughout the developed world to such an extent that, with the exception of cities which were laid in place before the turn of the century, we are no longer able to maintain defined urban forms. The last quarter of a century has seen the so-called field of urban design degenerate into a theoretical subject whose discourse bears little relation to the processal realities of modern development. Today even the super-managerial discipline of urban planning has entered into a state of crisis. The ultimate fate of the plan which was officially promulgated for the rebuilding of Rotterdam after World War II is symptomatic in this regard, since it testifies, in terms of its own recently changed status, to the current tendency to reduce all planning to little more than the allocation of land use and the logistics of distribution. Until relatively recently, the Rotterdam master plan was revised and upgraded every decade in the light of buildings which had been realized in the interim. In 1975, however, this progressive urban

cultural procedure was unexpectedly abandoned in favor of publishing a non-physical, infrastructure plan conceived at a regional scale. Such a plan concerns itself almost exclusively with the legislative projection of changes in land use and with the augmentation of existing distribution systems.

In his essay "Building, Dwelling, Thinking" of 1954, Martin Heidegger provides us with a critical vantage point from which to behold this phenomenon of universal placelessness. Against the Latin or rather, the Antique abstract concept of space as a more or less endless continuum of evenly sub-divided spatial components or integers, what he terms spatium and extensio, Heidegger opposes the German word for space (or, rather, place) which is the term Raum. Heidegger argues that the phenomenological essence of such a space/place depends upon the concrete, clearly defined nature of its boundary, for, as he puts it, "a boundary is not that at which something stops, but, as the Greeks recognized the boundary is that from which something begins its presencing."¹⁸ Apart from confirming that Western abstract reason has its origins in the antique culture of the Mediterranean, Heidegger shows that etymologically the German gerund building is closely linked with the archaic forms of being, cultivating and dwelling, and goes on to state that the condition of "dwelling" and hence ultimately of "being" can only take place in a domain that is clearly bounded.

While we may well remain skeptical as to the merit of grounding critical practice in a concept so hermetically metaphysical as Being, we are, when confronted with the ubiquitous placelessness of our modern environment, nonetheless brought to posit, after Heidegger, the absolute precondition of a bounded domain in order to create an architecture of resistance. Only such a defined boundary will permit the built form to stand against, and hence literally to withstand, in an institutional sense, the endless processal flux of the Megalopolis.

The bounded placeform, in its public mode, is also essential to what Hannah Arendt has termed "the space of human appearance," since the evolution of legitimate power has always been predicated upon the existence of the "polis" and upon comparable units of institutional and physical form. While the political life of the Greek polis did not stem directly from the physical presence and representation of the city-state, it displayed in contrast to the Megalopolis the cantonal attributes of urban density. Of this Arendt writes in The Human Condition:

"The only indispensable material factor in the generation of power is the living together of people. Only where men live so close together that the potentialities for action are always present will power remain with them and the foundation of cities, which as city states have remained paradigmatic for all Western political organization, is therefore the most important material prerequisite for power."¹⁹

Nothing could be more removed from the political essence of the city state than the rationalizations of positivistic urban planners such as Melvin Webber, whose ideological concepts of community without propinquity and the non-place urban realm are nothing if not slogans devised to rationalize the absence of any true public realm in the modern motopia.²⁰ The manipulative bias of such ideologies has never been more openly expressed than in Robert Venturi's Complexity and Contradiction in Architecture of 1966

wherein the author asserts that Americans do not need piazzas, since they should be at home watching television.²¹ Such reactionary attitudes emphasize the impotence of an urbanized populace which has paradoxically lost the object of its urbanization.

While the strategy of Critical Regionism as outlined above addresses itself mainly to the maintenance of an expressive density and resonance in an architecture of resistance (a cultural density which under today's conditions could be said to be potentially liberative in and of itself since it opens the user to manifold experience), the provision of a place-form is equally essential to critical practice, inasmuch as a resistant architecture, in an institutional sense, is necessarily dependent on a clearly defined domain. Perhaps the most generic example of such an urban form is the perimeter block, although other related, introspective types may be evoked, such as the galleria, the atrium, the forecourt and the labyrinth. And while these types have, in many instances, simply become the vehicles for accomodating psuedo-public realms (one thinks of recent megastructures in housing, hotels, shopping centers, etc.), one cannot, even in these instances, entirely discount the latent political and resistant potential of the place-form.

5. Culture versus Nature: Topography, Context, Climate, Light and Tectonic Form

Critical Regionalism necessarily involves a more directly dialectical relation with nature than the more abstract, formal traditions of modern avant-garde architecture allow. It is self-evident that the tabula rasa tendency of modernization favors the optimum use of earth-moving equipment inasmuch as a totally flat datum is regarded as the most economic matrix upon which to predicate the rationalization of construction. Here again, one touches, in concrete terms, this fundamental opposition between universal civilization and autochthonous culture. The bulldozing of an irregular topography into a flat site is clearly a technocratic gesture which aspires to a condition of absolute placelessness, whereas the terracing of the same site to receive the stepped form of a building is an engagement in the act of "cultivating" the site.

Clearly such a mode of beholding and acting brings one close, once again, to Heidegger's etymology; at the same time, it evokes the method alluded to by the Swiss architect Mario Botta, as "building the site."²² It is possible to argue that, in this last instance, the specific culture of the region, that is to say, its history in both a geological and agricultural sense, becomes inscribed into the form and realization of the work. This inscription, which arises out of "in-laying" the building into the site, has many levels of significance, for it has a capacity to embody, in built-form, the pre-history of the place, its archaeological past, and its subsequent cultivation and transformation across time. Through this layering into the site the idiosyncrasies of place find their expression

without falling into sentimentality.

What is evident in the case of topography applies to a similar degree in the case of an existing urban fabric, and the same can be claimed for the contingencies of climate and the temporarily infected qualities of local light. Once again, the sensitive modulation and incorporation of such factors must almost, by definition, be fundamentally opposed to the optimum use of universal technique. This is perhaps most clear in the case of light and climate control. The generic window is the most delicate point at which these two natural forces impinge upon the outer membrane of the building, fenestration having an innate capacity to inscribe architecture with the character of a region and hence to express the place in which the work is situated.

Until recently, the received precepts of modern curatorial practice favored the exclusive use of artificial light in all art galleries. It has perhaps been insufficiently recognized how this encapsulation tends to reduce the art work to a commodity, since such an environment must conspire to render the work placeless. This is because the local light spectrum is never permitted to play across its surface: here then we see how the loss of aura, attributed by Walter Benjamin to the processes of mechanical reproduction, also arises from a relatively static application of universal technology. The converse of this "placeless" practice would be to provide that art galleries be top-lit through carefully contrived monitors so that, while the injurious affects of direct sunlight are avoided, the ambient light of the exhibition volume changes under the impact of time, season, humidity, etc. Such conditions guarantee the appearance of a place-conscious poetic, a form of filtration compounded out of an interaction between culture and nature, between art and light. Clearly this principle applies to all fenestration, irrespective of size and location. A constant "regional inflection" of the form arises directly from the fact that in certain climates the glazed aperture is advanced, while in others it is recessed behind the masonry facade (or, alternatively, shielded by adjustable sun breakers).

The way in which such openings provide for appropriate ventilation also constitutes an unsentimental element reflecting the nature of local culture and here clearly, the main antagonist of rooted culture is the ubiquitous air-conditioner, applied in all times and in all places, irrespective of the local climatic conditions which have a capacity to express the specific place and the seasonal variations of its climate. Wherever they occur, the fixed window and the remote-controlled air-conditioning system are mutually indicative of domination by universal technique.

Despite the critical importance of topography and light, the primary principle of architectural autonomy resides in the tectonic rather than the scenographic; that is to say, this autonomy is embodied in the revealed ligaments of the construction and in the way in which the syntactical form of the structure explicitly resists the action of gravity. It is obvious that this discourse of the load borne (the beam) and the load-bearing (the column) cannot be brought into being where the structure is masked or otherwise concealed. On the other hand, the tectonic is

not to be confused with the purely technical, for it is more than the simple revelation of stereotomy or the expression of skeletal framework. Its essence was first defined by the German aesthetician Karl Botticher in his book Die Tektonik der Hellenen of 1852; and has perhaps best summarized by the architectural historian Stanford Anderson when he wrote:

" 'Tektonik' referred not just to the activity of making the materially requisite construction to an art form. ... The functionally adequate form must be adapted so as to give expression to its function. The sense of bearing provided by the entasis of Greek columns became the touchstone of this concept of Tektonik."²³

The tectonic remains to us today as a potential means for distilling the play between material, craftwork and gravity, so as to yield a component which is, in fact, a condensation of the entire structure. We may speak here of the presentation of a structural poetic rather than the representation of a facade.

6. The Visual Versus the Tactile

The tactile resilience of the place-form and the capacity of the body to read the environment in terms other than those of sight alone, suggest a potential strategy for resisting the domination of universal technology. It is symptomatic of the priority given to sight that we find it necessary to remind ourselves that the tactile is an important dimension in the perception of built form. One has in mind a whole range of complimentary sensory perceptions which are registered by the labile body: the intensity of light, darkness, heat and cold; the feeling of humidity; the aroma of material; the almost palpable presence of masonry as the body senses its own confinement; the momentum of an induced gait and the relative inertia of the body as it traverses the floor; the echoing resonance of our own footfall. Luchino Visconti was well aware of these factors when making the film The Damned, for he insisted that the main set of the Altona mansion should be paved in real wooden parquet. It was his belief that without a solid floor underfoot the actors would be incapable of assuming appropriate and convincing postures.

A similar tactile sensitivity is evident in the finishing of the public circulation in Alvar Aalto's Säynätsalo Town Hall of 1952. The main route leading to the second floor council chamber is ultimately orchestrated in terms which are as much tactile as they are visual. Not only is the principle access stair lined in raked brickwork, but the treads and risers are also finished in brick. The kinetic impetus of the body in climbing the stair is thus checked by the friction of the steps which are "read" soon after in contrast to the timber floor of the council chamber itself. This chamber asserts its honorific status through sound, smell and texture, not to mention the springy deflection of the floor underfoot (and a noticeable tendency to lose one's balance on its polished surface). From this example

it is clear that the liberative importance of the tactile resides in the fact that it can only be decoded in terms of experience itself: it cannot be reduced to mere information, to representation or to a simple simulacrum, substituting for absent presences.

In this way, Critical Regionalism seeks to complement our normative visual experience by readdressing the tactile range of human perceptions. In so doing, it endeavors to balance the priority accorded to the image and at the same time to counter the Western tendency to interpret the environment in exclusively perspectival terms. According to its etymology, perspective means rationalized sight or clear seeing, and as such it presupposes a conscious suppression of the senses of smell, hearing and taste, and a consequent distancing from a more direct experience of the environment. This self-imposed limitation relates to that which Heidegger has called a "loss of nearness." In attempting to counter this loss, the tactile opposes itself to the scenographic and the drawing of veils over the surface of reality. Its capacity to arouse the impulse to touch returns the architect to the poetics of construction and to the erection of works in which the tectonic value of each component depends upon the density of its objecthood. The tactile and the tectonic jointly have the capacity to transcend the mere appearance of the technical in much the same way as the place-form has the potential to withstand the relentless onslaught of global modernization.

1. Paul Ricoeur, "Universal Civilization and National Cultures" (1961), History and Truth, trans. Chas A. Kelbley (Evanston: Northwestern University Press, 1965), pp.276-7.
2. That these are but two sides of the same coin has perhaps been most dramatically demonstrated in the Portland City Annex completed in Portland, Oregon in 1982 to the designs of Michael Graves. The constructional fabric of this building bears no relation whatsoever to the "representative" scenography that is applied to the building both inside and out.
3. Ricoeur, p.277.
4. Fernand Braudel informs us that the term "culture" hardly existed before the beginning of the 19th century when, as far as Anglo-Saxon letters are concerned, it already finds itself opposed to "civilization" in the writings of Samuel Taylor Coleridge, above all, in Coleridge's On the Constitution of Church and State of 1830. The noun "civilization" has a somewhat longer history, first appearing in 1766, although its verb and participle forms date to the 16th and 17th centuries. The use that Ricoeur makes of the opposition between these two terms relates to the work of 20th-century German thinkers and writers such as Oswald Spengler, Ferdinand Tönnies, Alfred Weber and Thomas Mann.
5. Hannah Arendt, The Human Condition (Chicago: University of Chicago Press, 1958), p.154.
6. Clement Greenberg, "Avant-Garde and Kitsch" in Gillo Dorfles, ed., Kitsch (New York: Universe Books, 1969), p. 126.
7. Greenberg, "Modernist Painting," in Gregory Battcock, ed., The New Art (New York: Dalton, 1966), pp. 101-2.
8. See Charles Jencks, The Language of Post-Modern Architecture (New York: Rizzoli, 1977).
9. Andreas Huyssens, "The Search for Tradition: Avant-Garde and Post-modernism in the 1970's," New German Critique, 22 (Winter 1981), p. 34.
10. Jerry Mander, Four Arguments for the Elimination of Television (New York: Morrow Quill, 1978), p. 134.
11. Herbert Marcuse, One-Dimensional Man (Boston: Beacon Press, 1964), p.156.
12. Alex Tzonis and Liliane Lefaivre, "The Grid and the Pathway. An Introduction to the Work of Dimitris and Susan Antonakakis," Architecture in Greece, 15 (Athens: 1981), p.178.
13. Ricoeur, p.283.
14. Aldo Van Eyck, Forum (Amsterdam: 1962).
15. Hamilton Harwell Harris, "Liberative and Restrictive Regionalism." Address given to the Northwest Chapter of the AIA in Eugene, Oregon in 1954.
16. Jorn Utzon, "Platforms and Plateaus: Ideas of a Danish Architect," Zodiac, 10 (Milan: Edizioni Comunita, 1963), pp. 112-14.
17. Jean Gottmann, Megalopolis (Cambridge: MIT Press, 1961).

18. Martin Heidegger, "Building, Dwelling, Thinking," in Poetry, Language, Thought (New York: Harper Colophon, 1971), p.154. This essay first appeared in German in 1954.
19. Arendt, p.201.
20. Melvin Webber, Explorations in Urban Structure (TK)
21. Robert Venturi, Complexity and Contradiction in Architecture (New York: Museum of Modern Art, 1966), p.133.
22. See Vittorio Gregotti, L'architettura come territoriale (TK)
23. Stanford Anderson, "Modern Architecture and Industry: Peter Behrens, the AEG, and Industrial Design," Oppositions, 21 (Summer 1980), p.83.

This document is offered to you for free by the Canadian Centre for Architecture (CCA) in the context of the exhibition *Educating Architects: Four Courses by Kenneth Frampton*. It is to be used solely for research or private study and any use of this document for any other purpose requires the authorization of the copyright owner of this document.

Ce document vous est remis gratuitement par le Centre Canadien d'Architecture (CCA) dans le contexte de l'exposition *Apprendre aux architectes : quatre cours de Kenneth Frampton*. Il ne peut être utilisé qu'à des fins d'étude privée ou de recherche et tout usage de ce document à d'autres fins exige l'autorisation du titulaire du droit d'auteur sur les documents.