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*Megaform as
Urban Landscape*

Kenneth Frampton

Kenneth Frampton closed the honorable Raoul Wallenberg Memoria lecture in 1999 with an address by Vittorio Gregotti in 1983 wherein he asserted that, "The origin of architecture is not the primitive hut, but the marking of ground, to establish a cosmic order around the surrounding chaos of nature." Frampton stated that the technological urbanised region is the new chaos but as architects and urbanists we still have the same task, bringing harmony between the technological urbanised space and nature. The lecture by Frampton is extremely relevant today. The megaform is an urban landscape, which could be an answer to reverse the altered and controlled nature, or the environmental crisis, towards a new harmony. This is especially urgent in delta regions, which have 12 times the global mean of 47 people per sq km, resulting at a population density of 580 people per sq km. Especially here the inclusion of delta dynamics and at the same time as Frampton proposes: "sustaining a sense of place but also of serving as an effective catalyst for the further development of the region" could offer purpose for the megastructure as human response to the *longue durée* of the natural system.

*Published to commemorate the Raoul Wallenberg Memorial Lecture given by Kenneth Frampton at the College on February 12, 1999.*⁰¹

As architects and urbanists, we need to remind ourselves as to the destiny of Wallenberg's life, first because he was a distinguished, if unproven, architect and secondly because of the indisputably ethical character of his actions. It is to the lasting credit of Sweden that Wallenberg was able to save so many lives through that insecure neutral space afforded by the Swedish Delegation in Budapest. There is little demonstrable link between Wallenberg's diplomatic courage and his chosen profession, save perhaps for the potential role of the ethical in the pursuit of both. It is a story of exceptional heroism which has a mythic and somber tone due to his inexplicable and still unresolved disappearance at the end of the war.

Since 1961 when the French geographer Jean Gottmann first employed the term megalopolis to allude to the northeastern seaboard of the United States, the world population has become increasingly dense with the result that most of us now live in some form of continuous urbanized region. One of the paradoxical consequences of this population shift is that today we are largely unable to project urban form with any degree of confidence, neither as a tabula rasa operation nor as a piecemeal aggregation to be achieved through such devices as zoning codes maintained over a long period of time. The constant expansion of the autoroute infrastructure throughout the world continues to open up increasing tracts of former agricultural land to suburban subdivision. Despite this endless suburbanized development throughout the world and most particularly in North America, there remains the occasional capital city where some kind of urban planning process is still being significantly maintained such as Helsinki or the recent refurbishing of Barcelona which is yet another example of an exception to the megalopolitan norm.

In the main, however, the urban future tends to be projected largely in terms of remedial operations as these may be applied to existing urban cores or, with less certainty, to selected parts of the megalopolis. Meanwhile, the urbanized region continues to consolidate its hold over vast areas of land as in the Randstad in the Netherlands or the Tokyo-Hokkaido corridor in Japan. These urbanized regions are subject to sporadic waves of urban expansion that either escalate out of control or enter into periods of stagnation. It is a predicament that confronts the urbanist with an all but impossible task, one in which civic intervention has to be capable not only of sustaining a sense of place but also of serving as an effective catalyst for the further development of the region.

Owing to the dissolution of the city as a bounded domain, dating from the mid-nineteenth century, architects have long since been aware that any contribution they might make to the urban form would of necessity be extremely limited. This resignation is already implicit in Camillo Sitte's remedial urban strategy of 1889. In his book, *City Planning According to Artistic Principles*, he attempted to respond to the "space-endlessness" of the Viennese Ringstrasse by recommending the redefinition of the Ring in terms of bounded form. Sitte was evidently disturbed by the fact that the main monuments of the Ring had been built as free-standing objects and he recommended enclosing them with built fabric in order to establish

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relationships similar to those that had once existed in the medieval city, such as that between the parvis and the cathedral.

Inspired by Sitte's revisionism, I have coined the term megaform in order to refer to the form-giving potential of certain kinds of horizontal urban fabric capable of effecting some kind of topographic transformation in the megalopolitan landscape. It has to be admitted at the outset that this term may read as being synonymous with the term megastructure, as this was first coined in the 1960s. In my view, the two terms may be differentiated from one another in terms of the relative continuity of their form. Thus, while a megaform may incorporate a megastructure, a megastructure is not necessarily a megaform.

One may illustrate this distinction by comparing the Centre Pompidou in Paris, which is surely a megastructure, to Arthur Erickson's Robson Square development in Vancouver which is ultimately a megaform. This is largely due to the way in which its continuously stepped layered form serves to modulate and unify the existing urban fabric of downtown Vancouver. This particular example also happens to have been enriched by an exceptionally fertile collaboration between its architect, Arthur Erickson, and the landscape architect, Cornelia Oberlander.

It seems that our capacity to imagine megaform may well have originated with our first experiences of the world as seen from the air. This, on his own admission, was the catalyst behind Le Corbusier's Plan Obus for Algiers of 1931 that was directly inspired by the volcanic topography of Rio de Janeiro which he first surveyed from the air in 1929. This sweeping panorama led him to imagine a continuous urban form in which one could no longer discriminate between the building and the landscape.

A corollary to this topographic approach was to treat the built fabric as a form of artificial ground, upon which and within which the occupant would be free to build in whatever way he saw fit. Hence, while postulating the continuity of the megaform, Le Corbusier left its interstitial fabric open and accessible to popular taste.

In its failure to conform to any received urban model, the Plan Obus was hardly a feasible proposal from either a productive or a cultural standpoint. It was totally removed, let us say, from Joseph Stubben's codification of regularized urban space as this had been set forth in his book *Die Stadtebau* of 1890. Nor did it owe anything to the perimeter block type, as this would be applied to urban extensions from around 1890 to 1924 and of which Berlage's Amsterdam South plan of 1915 is a prime example. At the same time neither did it conform to the Zeilenbau row house model which was adopted in the Weimar Republic and elsewhere from around 1924 onwards.

For our purposes, the megaform may be defined as the displaying the following characteristics: 1) A large form extending horizontally rather than vertically. 2) A complex form which, unlike the megastructure, is not necessarily articulated into a series of structural and mechanical subsets as we find for example in the Centre Pompidou. 3) A form capable of inflecting the existing urban landscape as found because of its strong topographical character. 4) A form that is not freestanding but rather insinuates itself as a continuation of the surrounding topography, and last but not least, 5) a form that is oriented towards a densification of the urban fabric.

Beyond the dense historical core, a megaform may be identified as an urban nexus set within the "space-endlessness" of the megalopolis. Henri Ciriani's concept of *une pièce urbaine* as first formulated in his so-called Barre à Marne or Noissy I complex, realized in Marne la Vallée in 1980, certainly seem to have been conceived along these lines and something similar may be claimed for Rafael Moneo and Manuel de Sola Morales' L'Ilia Block as realized in Barcelona in 1997.

The idea of megaform is also implicit as a strategy in Vittorio Gregotti's concept of the anthropogeographic landscape as this is set forth in his book, *Il territorio di architettura* of 1966. Drawing on the work of the German geographer Friedrich Ratzel, who first coined the term anthropogeographic, Gregotti was able to evolve a territorial approach to urban design that, among his Neo-Rationalist colleagues, put him in a class apart. While not opposing the Neo-Rationalist project of reconstructing the neoclassical European city along traditional, typological lines as hypothesized by Aldo Rossi, Leon Krier et al.,

Gregotti was more intent on responding to the challenge of the megalopolis at a regional scale - at a scale that was closer to that of Le Corbusier's Plan Obus which he recognized as a precedent. Hence his Zen housing scheme for Palermo of 1965 may be seen as combining the Zeilenbau pattern of Weimar with the perimeter block approach of Amsterdam. His scheme for the University of Florence designed two years later was much more territorial with its long block running out into the agrarian landscape. This approach took on an even more expansive geographic dimension in his proposal for the University of Calabria of 1973, where the "spine" of the university cuts across five hills between a take-off from the regional autoroute and a railroad station. Partially realized, this infrastructure remains a canonical piece

in as much as it is both ordered and yet open to random development. Blocks were designed to be freely attached to the spine without compromising its ability to impinge on the landscape at a panoramic scale.

If one looks for the origin of the megaform in the history of the Modern Movement one tends to find it in Northern Europe rather than the Mediterranean. One first encounters it in Bruno Taut's concept of the "city crown" as this appears in his book *Die Stadtkrone* of 1919. This becomes manifest in the ensuing decade in the German cult of the big building form as it appears in the work of a number of Expressionist architects of the 1920s, including such figures as Hans Scharoun, Hugo Häring, Fritz Höger and Hans Poelzig. One finds in these architects a predisposition for creating large, dynamic urban entities in opposition to the dematerialized spatial dynamics of the twentieth century avant-garde. One thinks of such canonical works as Hans Poelzig's House of Friendship projected for Istanbul in 1916, Hugo Häring's Gut Garkau of 1924, Fritz Höger's Chilehaus in Hamburg of 1925 and Hans Scharoun's Breslau Werkbund exhibition building of 1929. In the case of Poelzig's Istanbul project, one is struck by the way in which the distant silhouette of the building rises diagonally out of the horizontal profile of the city, so that it assumes the form of an artificial escarpment, replete with hanging gardens.

There were of course other German architects in this period who were to embrace a similar topographic strategy - above all Erich Mendelsohn, whose project for Alexanderplatz, Berlin of 1927 rises out of the existing street fabric like a dynamic force. The megaform seems to be an embryonic presence in almost all of Mendelsohn's work from his diminutive Einstein

Tower in Potsdam of 1920 to his commercial center for Haifa of 1924 and his heroic Hadassah Hospital projected for Mount Scopus in 1935. The megaform was also evident in the work of Austrian architect, Lois Welzenbacher, above all in his competition for entry for Berlin Hazelhorst housing of 1928.

Among Scandinavian architects, the one who lies closest to this German tradition is Alvar Aalto, as is most evident perhaps from his Baker Dormitory, completed on the edge of the Charles River in Cambridge, Massachusetts in 1944. However, a perennial topographic syndrome is manifest in Aalto's work throughout his mature career, from the "tented-mountain" he projected for the Vogelweidplatz Sports Center in Vienna in 1953 to the Pension Institute realized in Helsinki in 1956. A similar stress upon megaform is also evident in his proposal of the mid-sixties for a new cultural district in the Tooloo area of Helsinki wherein a terraced autoroute system transforms the morphology of the center, serving as a topographic link and a dynamic binder between a series of cultural buildings lining the lake and the major rail head entering the city.

Something approaching a megaform strategy may also be found in the work of Team X, above all perhaps in Jacob Bakema's Bochum University proposal of 1962, his plan for Tel Aviv of 1963 and his Plan Pampus for Amsterdam of 1965. Both Bakema and the British architects Alison and Peter Smithson seem to have regarded the autoroute infrastructure as the sole element which could be depended upon when projecting the future of urban form. This accounts for the Smithsons' Berlin Hauptstadt Competition entry of 1958. The megaform theme also plays a role in the work of Ralph Erskine, above all in his Svappavaara proposal for Lapland of 1963 and in his later Byker Wall housing complex completed in 1981 at Newcastle in England.

To my knowledge the term megaform as opposed to megastructure is first used rather coincidentally by Fumihiko Maki and Masato Ohtaka in their essay "Some Thoughts on Collective Form" of 1965. They introduce the term when writing an appreciation of Kenzo Tange's Tokyo Bay Project of 1960 to the effect that:

One of the most interesting developments of the megaform has been suggested by Kenzo Tange in connection with the Tokyo Bay Project. He presents a proposal for a mass-human scale form which includes a megaform and discrete, rapidly changing, functional units which fit within the larger framework. He reasons that short-lived items are becoming more and more short-lived and the cycle of change is shrinking at a corresponding rate. On the other hand, the accumulation of capital has made it possible to build in large scale operations...

For Maki and Ohtaka, the megaform concept depended upon the idea that change would occur less rapidly in some realms than others. On this basis, they introduced the idea of group form, with the notion that a podium may be inserted into an urban fabric in order to provide for a long term stability while the structures on its surface would be subject to a faster cycle of change and replacement. This concept was exemplified at the time in their joint proposal for the Shinjuku area of Tokyo in which they proposed building a podium above the Shinjuku transit terminal, while at the same time introducing new shopping facilities at grade with parking beneath and rather random, medium rise offices and residential structure above.

Maki's subsequent work has contributed to the theme of the megaform. Like the "city-crown" projects of Jørn Utzon, it is a form that generally manifests itself at two levels, so that while it emphasizes the importance of the podium/earthwork, almost as a precondition, it also depends on the roofwork as an element that is essential to the hill-like character of the final form, as we find this in Bruno Taut's vision of the "city-crown." This double paradigm of earthwork/roofwork first fully emerges in Maki's Fujisawa Gymnasium of 1980 and reappears in his Tokyo Metropolitan Gymnasium of 1985 and in his Makahari Convention Center, Chiba of 1989.

The Ticinese Neo-Rationalist architects of the early seventies also gravitated towards the megaform. This is particularly true for the urban projects designed by Mario Botta and Luigi Snozzi, above all their "viaduct" block proposal for a new administration center in Perugia of 1977 and their air right project for the Zurich rail terminal of 1981. Perugia is particularly interesting in this regard for, like the aforementioned L'illa Block in Barcelona, it posited a long orthogonal structure containing a flexible space-form within. One end of this "viaduct" was fed by parking silos that were connected to the hill town of Perugia by a teleferico.

Adhering to a similar format, the project for the Zurich terminus designed by Botta and Snozzi not only denoted the line of the buried Sihl River, but also provided new ticketing facilities while being connected to a large multi-story parking garage built over the rail tracks entering the station. This proposal would have revitalized the rail network by linking it directly to the road infrastructure, while at the same time maintaining the old terminus and restoring a trace of the original topography, namely, a tributary to the Limmlet that was covered over by the railhead in the nineteenth century.

Large building forms are particularly evident at an urban scale in the work of Rafael Moneo, from his Roman Museum erected in Merida in 1986 to his Atocha Station completed in Madrid in 1992 and his recent proposal for twin auditoria on a podium overlooking the seafront in San Sebastian. In each instance, the morphology of the structure gives a particular inflection to the surrounding topography. In Madrid, the hypostyle of the new high-speed train shed slides into the rear of the old station in such a way as to render the overall form legible over a much wider area. Megaforms are also in evidence in the work of a number of Catalan architects including Esteven Bonell and Francesc Rius, whose Velodrome d'Horta built in the Vall d'Hebron neighborhood of Barcelona in 1986 establishes a particularly powerful landmark in the midst of urban chaos. Here is the condition of a bounding ring of auxiliary spaces enclosing the elliptical form of the bicycle track within.

In his archery building for the 1992 Barcelona Olympics, the Catalan architect Enric Miralles designed a building which is extremely sensitive to the landscape and which becomes the landscape. In his scheme for the Igualada Cemetery, realized in a disused quarry and dating from the same year, it is difficult to say whether this is a building, a series of buildings, the city of the dead or the landscape. It is so much a landscape form that it is difficult to say where landscape ends and building begins. Miralles has always striven to give his architecture a topographic character, one that either animates a flat site or fuses it with pre-existing heavily

contoured form. Clearly landform as a radical reshaping of the ground may be used to impart shape to a terrain that would otherwise be totally formless.

One may object that the megaform approach gives sufficient attention to the transport infrastructure or, conversely, that the physical form of the city is of little consequence in a telematic age. Alternatively, one may claim that urban culture in a classical sense can only be reconstituted typologically, or, conversely, that the traditional context of the historical city is no longer pertinent. Each of these polarized positions seem to be somewhat evasive to the extent that they fail to confront the responsibility of giving an identifiable shape or inflection to the late modern megalopolis.

Given the ruthless forms of motopian development that are currently transforming vast tracts of the Asian continent, we are again reminded that cities can no longer be realized as coherent entities according to the dictates of some master plan, nor can they always be developed in culturally significant ways on an incremental basis. While this last may have always been the case, what has changed dramatically in the last fifty years is the rate of technological change and the rapacity of development, occurring at a speed and scale which totally outstrips anything that urbanized society had experienced in the past. In addition to this, we may note that in many parts of the world the land is no longer significantly productive, that is to say, it is no longer used as a site for either agricultural or industrial production. Instead there is a noticeable tendency to reduce the ground itself to a commodity through the interrelated processes of tourism, land speculation and the global expansion of the service industry. Under these conditions, late capitalism seems reluctant to commit itself to any form of land settlement that would be consistent with the production of coherent civic form.

Thus we may conclude that architects can only intervene urbanistically in an increasingly remedial manner and that one effective instrument for this is the large building program that may be rendered as a megaform - as an element which due to its size, content and direction has the capacity to inflect the surrounding landscape and give it a particular orientation and identity. I believe that such forms are capable of returning us to a time when the prime object of architecture was not the proliferation

of freestanding objects but rather the marking of ground. As Vittorio Gregotti remarked, the origin of architecture resides in the creation of a microcosmos. He put it:

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...

I have attempted to trace the recurrence of the megaform as a unifying environmental trope in twentieth century architecture and civic design in an effort to suggest that it may be one of the only formal legacies that remain available for the realistic mediation of the random megalopolis as an iterated form. Clearly not all the examples I have cited are pitched at the same scale or at an equal level of abstraction nor do they possess the same potential feasibility. Despite these variations, they all tend to blur in different ways the conventional differentiation between architecture and landscape. Like canals, railway cuttings, autoroutes, dykes and other artificial earthworks,

they all have the potential of gathering up the contingent landscape around them by virtue of their anthrogeographic status, so much so that they may, at some juncture, appear to merge with the ground or alternatively to become, through their topographic presence, the status of being a landmark.

A certain "kinetic horizontality" is almost a precondition for the emergence of such forms, and in this regard it is important to observe that free-standing high-rise structures, for all their rival potential as landmarks, do not attain the same anthrogeographic status, unless they happen to be of the same height and rhythmically linked in a compelling way at grade. While this may seem to be a prescription verging on formalism, it should be evident that the arbitrary horizontal packaging of the program, irrespective of content, is not desirable. It is essential that our horizontal megaforms serve as civic microcosms and that they function as identifiable spaces of public appearance within the universal, ever-expanding context of Melvin Webber's "non-place urban realm." Hence it is not so difficult to adumbrate the programmatic types that seem to have the potential of engendering such forms. Aside from the unlikely prospect of being able to achieve extended areas of low-rise, high-density housing, one thinks, in no particular order, of shopping malls, air terminals, transport interchanges, hospitals, hotels, sports facilities, and universities - a series of type-form in fact that still have a certain currency, not to say urgency, within the ever-expanding domain of the megalopolis.

In an address in 1983, Vittorio Gregotti asserted that, "The origin of architecture is not the primitive hut, but the marking of ground, to establish a cosmic order around the surrounding chaos of nature." Now we have made a new nature - this technological urbanized region which is the new chaos - but as architects and urbanist we still have the same task.

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