On the Vicissitudes of History, Theory and Practice

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The session raises an important curricular question by reversing the typical relation of architectural history to the design studio. Instead of history supporting and enhancing the culture of the design studio, it asks: what is the relevance of the design studio to architectural history? It is clear what architectural history gives to studio: precedents or case studies; history provides examples that we can learn from. But how does the design studio, including contemporary practice, inform, as well as transform, our perception and interpretation of the history of architecture? Time/memory, as we know from Bergson, is not a static thing, but subject to change. There is a dialectical relation between the past, present and future, where one simultaneously transforms the other, and vice versa. The thesis that our experience of time, *durée*, is plastic was a philosophical concept that inspired the modern avant-garde. But can we say that *history* is plastic, when some of the great philosophers of the twentieth century saw history as linear constructs authored by the victors, and were consequently against History: Benjamin, Bataille, Bergson, Lacan, Deleuze… (Perhaps this problem is one reason why architectural history is invariably tied to theory, although, one should also point out that this coupling, in its present formulation, has raised a host of other historiographical and methodological issues.)

As I am an historian, and since my own research focuses on the post-WWII period, the Megastructure Movement will serve as a case study for exploring the question raised by this session: "What pedagogical value does design education [which, for our purposes, will include not only the design

Figure 1. Moshe Safdie, *Habitat '67*, Montreal.

studio but contemporary practice] offer to architectural history?"

The Megastructure is an important case study because of the role it has played in the vicissitudes of architectural discourse, past and present. Generally, the Megastructure refers to large-scale projects, which were proposed at a time when modern architects believed that it was their duty to construct buildings at the scale of entire communities, and even cities. The highpoint of such propositions came in the early 1960s, when Archigram popularized this type of project with their fanciful, plug-in/drive-in, mobile cities -- projects that, remarkably, were then proposed with absolute seriousness. By the mid 1960s, Megastructures were dominant in architectural schools in America as well as on the Continent (Harvard, MIT, UPenn, the AA in London, Vienna University of Technology, and the École Nationale Supérieure des Beaux-Arts in Paris), but in the course of just a few years it very quickly fell out of favor, and the first historian to document the passing of the movement was Archigram's friend and champion, Peter Reyner Banham, who in 1974

began writing *Megastructure, Urban Futures of the Recent Past* (published in 1976). It is said that in order for a subject to become history it must first die, fade out of existence, but Banham's account of the Megastructure was more of a eulogy for a phenomenon that had suffered an untimely death. For his motive in writing the book was a traumatic one, and in his opening pages, he asked: How could we have proposed projects of such vast dimension and monumental folly? What were we thinking back then?[1]

The Megastructure was also a topic of historical interest for two of Banham's eminent colleagues, Manfredo Tafuri and Colin Rowe. But if Banham's book was a eulogy in commemoration of an untimely death, Tafuri and Rowe made certain that the Megastructure was indeed History. Their respective accounts, *Architecture and Utopia* (1973) and *Collage City* (1978), were devastating critiques intended to dispel any utopian stirrings in the architect once and for all. In *Collage City*, four fifths of which is a diatribe against the excesses of modernism, the Megastructure is figured as the last architectural utopia in a long succession of fantasies since the Renaissance…. And similarly *Architecture and Utopia* (based on Tafuri's 1969 essay, "Per una critica dell'ideologia architettonica") troubled the utopian aspirations of modern architects, though here the troubling was inflected by a Marxist critique of architecture as Capitalist ideology. This critique not only killed the Megastructure, it also transformed the relation between history and theory on one hand and practice (as a projective enterprise) on the other. With Tafuri, for example, history would no longer be so intimately tied to practice, as it was for a slightly older generation of architectural historians (Giedion, Kaufmann, Pevsner, but also his contemporary, Banham), whom Tafuri famously labeled "operative critics" because they instrumentalized history in the service of contemporary practices they themselves promoted.

I mention this discursive shift in the relation between history/theory and practice, because it, in turn, has become the subject of criticism and debate, and in the process, has opened up a space for the reassessment of the Megastructure, albeit indirectly. Over the past two decades, various historians, theorists and critics have called into question, if not the divide between history, theory and practice, than the privileging of critical theory over practice,

an orientation that for some dominated discussions in architectural academia in the 1980s, during the height of Tafuri's influence and power in Italy and on the northeast coast of the United States. Early voices which spoke against critical theory include Sylvia Lavin and Michael Speaks, and more subtly, Robert Somol and Sarah Whiting, all of whom have documented as well as contributed to the shift in academia away from critical theory towards practices engaged in and empowered by global capitalism.[2] Most drastically, Speaks has called for the end of theory *tout court*, and has heralded in an age of "post-theory," although some of the practitioners he endorses, such as Rem Koolhaas of OMA, are to my mind first-class theorists, though never to the detriment of the practice of their art. Indeed, as George Baird has observed, Koolhaas has long been wary of critical theory, and this wariness is possibly leftover from his earlier reservations regarding the utopian thinking of the sixties.[3]

As one can imagine, this debate over the status of theory has elicited several responses, both positive and negative. While for some it has been necessary to remove the shackles of critical theory in order to move forward, for others it is now more than ever an imperative to retain theory as a site of reflexive criticality and political engagement.[4] However, important as these questions are for contemporary practice, this debate also raises corresponding questions about our approach to history, and compels us to ask not only how do we move forward, but how do we go back? If we can say that the shift away from critical theory was necessary for practice to be projective again, then the question applies equally to our retrospective reading of the past.[5] A fog of disenchantment seems to have lifted, and one suspects that its effects have worked in both directions, allowing other things to come into view.
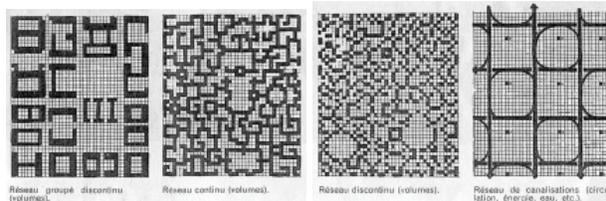

Figure 2. Yona Friedman,"L'Urbanisme Comme Système Compréhensible," *Techniques et Architecture* (Sept. – Oct. 1964).
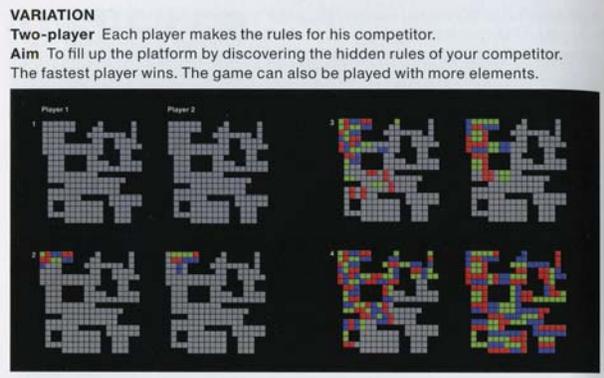
Figure 3. MVRDV, *Space Fighter* (Barcelona; New York: Actar, 2007), p. 140.

Significantly, coinciding with this debate at the turn of the millennium, we find contemporary architects such as MVRDV and Kostas Terzidis proposing perspectives on architecture that have their roots precisely in the postwar period. In the preface of Terizidis's new book on *Algorithmic Architecture*, the historian and Harvard professor, Antoine Picon, duly notes the affinities between Terzidis's work on a computational theory of architecture and earlier experiments -- experiments that, not by chance, have become research fodder for dissertations. In his MIT thesis, A.J. Magalhaes Rocha, for example, examines research centers on architecture and computers, which emerged in the 1950s and 1960s, and has uncovered other theories of architecture tied not to literary criticism or psychoanalysis, but to science and mathematics.[6] Similarly, in *The Regionmaker* (2002), Winy Maas refers to the Megastructures of the 1960s as precedents for MVRDV's own research into computer applications of urban and regional processes, and specifically mentions the work of Buckminster Fuller, Cedric Price, Constantinos Doxiadis, Serge Chermayeff, Christopher Alexander and Yona Friedman.[7] Although Maas does not go into any detail about what exactly he has learned from these earlier experiments, as he is more concerned with formulating a generative theory of the Rhein Ruhr City region for today, it is not difficult to see what the Megastructure offers, beyond a preoccupation with density: namely, an interest in patterns of urban growth and change, as this interest was informed by the then new information sciences of cybernetics and cellular automata. Moreover, what is important about these precedents has less to do with CAD software, or even with the computer's ability to handle massive amounts of data instantly, and more with a certain logic and understanding of
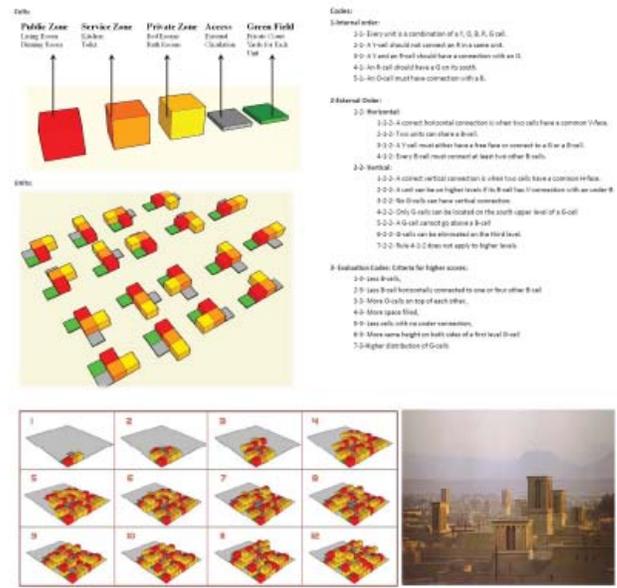

Figure 4. Scripting Assignment (class project by Vahid Vahdat Zad for ARCH 639 taught by Sarah Deyong in Fall 2008 at Texas A&M).

the design process and of the computational tools we employ to conceive it.[8]

At Texas A&M, I teach a seminar on contemporary theories in architecture, and one of the premises of the course is that some of the most recent ideas in academia are repetitions of older ones. As such, it looks at a nexus of ideas that emerged, or re-emerged, in the post-WWII period on the problem of urban 'growth and form,' a problem that was tabled by Team 10 in the 1950s and prompted many exciting responses, including proposals that drew inspiration from the nascent field of cybernetics, which brought biology into the purview of mathematics and computer science. Two of the seminal texts we studied in response to Team 10's agenda included Christopher Alexander's "A City is Not a Tree" (1964) and Yona Friedman's *Towards a Scientific Architecture*, texts that are as fresh today as they were forty years ago. As the class was a seminar, we looked briefly at the scientific texts that were formative to Alexander and Friedman's thinking, Ross Ashyby's *Design for a Brain* and John von Neumann's *Cellular Automata*, respectively. But since theory is more compelling when it is put into practice, we also conducted low-level, scripting experiments (that is, we have not yet created an actual computer script), from which we were able to make some general observations.

The assignment was quite simple, and required the students to design a dwelling complex based on a set of rules. Students had to identify the units of their complex, and the rules for assembling them, according to functional requirements, such as views, sunlight, the relation of private, public and service areas, access to the exterior, and access to the main circulation. And for these requirements it was also proposed to have evaluation criteria that could narrow down the results of the many different possible configurations that resulted from the rule set. In the process of doing these experiments, we also found that it was necessary to establish a different set of rules for each level of organization; for example, one for the configuration of each individual apartment unit and another for the way in which the units were assembled. While some students felt that this process was too deterministic, others were surprised with the spatial configurations they had generated and felt that it was a useful aid to design, forcing them to think about design from the bottom up as it were.

The experiment is still at an early stage of investigation, but it demonstrated that there is a very strong relation between rules and patterns, and that design and invention should begin not at the level of its final form or typology, but at the level of its generative rules and components.
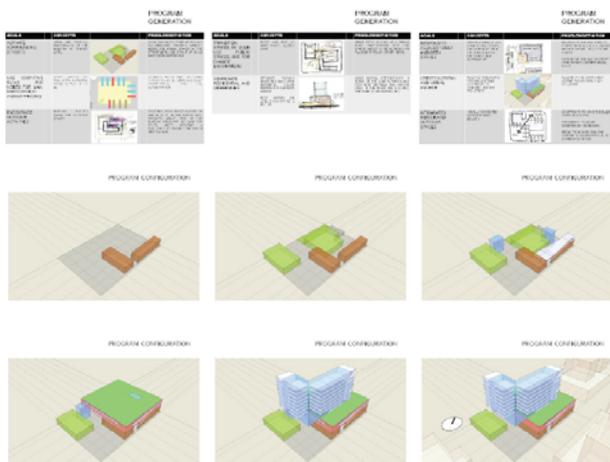
ENDNOTES

1. Reyner Banham, *Megastructure, Urban Futures of the Recent Past* (London: Harper and Row, 1976).

2. For example, see: Sylvia Lavin, "The Uses and Abuses of Theory," *Progressive Architecture* 71, n.8 (August 1990): 113-114, 179; Michael Speaks, "Design Intelligence: or Thinking After the End of Metaphysics," *Architectural Design* 72, n. 5 (September/October 2002): 4-5; Robert Somel and Sarah Whiting, "Notes Around the Doppler Effect and Other Moods of Modernism," *Perspecta* 33 (2002): 72-77.

3. Baird reports Koolhaas saying the following at an ANY conference in 1994: "The problem with architectural criticism is [the] inability to recognize there is in the deepest motivations of architecture something that cannot be critical." In "'Criticality' and its Discontents," Harvard Design Review (Fall 2004/Winter 2005): 16.

4. See for example Felicity Scott, *Architecture or Techno-Utopia, Politics After Modernism* (Cambridge, Mass.: MIT Press, 2007).

5. This was a question that I had posed in writing my dissertation on the Megastructure a full generation after the onslaught of criticism that came at the end of May '68. Specifically, how do we reassess the Megastructure without rehearsing the innocence and optimism of the sixties as if May 68 had never happened or is the Megastructure doomed to remain a monumental folly? Between these two poles, can a different story be told? *The Creative Simulacrum in Architecture: Megastructure 1953-1972*, doctoral dissertation submitted to Princeton niversity, School of Architecture, Princeton, New Jersey, 2008.
6. A. J. Magalhaes Rocha, *Architectural Theory 1960-1980: Emergence of a Computational Perspective*, doctoral dissertation submitted to the MIT Department of Architecture, Cambridge, Massachusetts, 2004.

7. See the essay by Winy Maas and Manuel de Rivero, "Why the Regionmaker" in MVRDV, *The Regionmaker, Rhein Ruhr City* (Ostfildern-Ruit, Germany: Hatje Cantz, 2002).

8. Terzidis productively makes a distinction between computering and computation. Whereas the former refers to computer applications, the latter refers to a logical mode of thinking useful for design. *Algorithmic Architecture* (Oxford: Elsevier, 2006).

Figure 5. Program Generation (studio project by Kaushik Ganesh for ARCH 605 taught by Craig Babe in Fall 2008 at Texas A&M).