Theatrical Tectonics: The Mediating Agent for a Contesting Practice

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Opening

In *Design and Crime*, Hal Foster has proposed the concept of 'strategic autonomy' for criticism of contemporary visual culture.[1] Exploring the historical formation of the concept of autonomy and its importance for art history, he argues that the antinomy between 'autonomy' and socio-historical determination still shapes cultural studies today, despite the domination of the image in contemporary cultural production. Starting from Kant's discourse on autonomy, recalled by Foster, two important implications for architecture are suggested. First, eighteenth-century architecture enjoyed a momentary independence from the classical wisdom, which soon had to give way to the imperatives imposed by the production and consumption cycles of capitalism.[2] Secondly, Kant sought 'a basis for artistic understanding within a mental realm which imparts unified artistic understanding to the perception of appearances and change in nature'.[3] This is clear from the attempt to connect artwork with social history in the 1920s, when the situation was foggy enough for architecture to claim formal autonomy despite the fact that aspects of the culture of building were still deeply rooted in the traditions of craftwork. To solidify a sense of autonomy, architects had to consider the classical Orders a surface-related issue (Le Corbusier), and frame architecture in reference to images, the aesthetic dimension of which had little to do with the traditions of the culture of building. By the 1950s however, the architecture of Brutalism launched an internal shift, challenging the major ethos of modernism. Particular to Brutal-

ism was a perception of image that was not yet separated from materiality and the kind of design decision-making that is architectural in essence. The slow processes of architectural thinking and making were, during the 1950s, still associated with a capitalist system that had not yet tasted the velocity internal to a digital mode of reproductivity.

Today, the situation has changed dramatically: the commodification of everyday life is total and the subjective world of artists and architects is constantly defined and redefined by an everydayness saturated with visual images. Today, the predicament of the discipline centres on the fact that architecture by definition is a collective work and might never touch the kind of autonomy other visual arts have. One might even argue that modernism's claim for autonomy was nothing but a foil meant to disguise its complicity with capitalism, an ideological delusion that needed only a couple of decades to be unveiled.

This article analyses the tectonic of (New) Brutalism, arguing that architecture cannot avoid the cultural logic of capitalism, to recall the title of Fredric Jameson's famous book. The argument presented here benefits from the modernist theorisation of the schism between surface and structure, and works toward a discussion of the image that is internal to the provisions of the constructed form. This argument implies a shift away from architectural autonomy towards a dialectics of semi-autonomy. Such a notion is more capable of taking into account

the material and perceptual conditions induced by the latest technologies of architectural design. By developing the notion of the tectonic - going back as far as Gottfried Semper - this essay brings to light 'the lines with which we can reconnect our present with a past that is continually being reinvented in function of the viewpoints from which we examine it'.[4] In other words, the tectonic turns out to be crucial for understanding the complex relationship of architecture with the reproductive system of capitalism.

From the point of view of tectonics, architecture is materialised through construction, though the final result is not transparent to the constructed form. After Semper, one can argue that there is always *excess* involved in architecture, the agent of which, if it is not reduced to formal and symbolic elements of some kind, is simply tectonic. Without subjecting architecture to the world of 'image building', a subject discussed in another essay of Foster,[5] it is the cultural that underpins Semper's tectonics, in which the image mediates between the core-form and the art-form of a building.[6] Aside from the title's paradoxical juxtaposition of image with building, Foster's essay alludes to historicism as one of the main facets of theories that discuss architecture alongside contemporary cultural discourses. Implied in Semper's mapping of tectonics in the broader constructive culture of a given period is a vision of historiography that informs much of what 'contesting practice' wishes to deliver in the title of this essay.

What then is the nature of excess in Brutalist architecture? And how does the work's revealed poetics of construction resist becoming part of the image-laden implications of the pop culture that spread throughout the Anglo-Saxon world of the postwar era? To answer these questions, this essay will explore Brutalism's criticism of the established ethos of the International Style architecture. The first part of this article will underline the move-

ment's tendency to replace the painterly with the sculptural in reference to the contemporary interest in monolithic architecture. In particular, this paper will address Reyner Banham's 'New Brutalism' in order to highlight the notion of image for a tectonic discourse that was not popular at the time when the British historian, following the Smithsons' work, formulated his own understanding of Brutalism. This discussion establishes the premises for the second part, which explores the import of disciplinarity in architecture, and argues that the theme of agency in architecture is tectonic in nature. This part examines various discourses of autonomy permeating the 1970s architectural discourse in order to show that, if one accepts tectonics as the agent of architecture, then criticality does not necessarily involve 'applied theory', but instead, emerges in the *distance* that is taken from architectural praxis of the recent past. To shed light on the capacity of the tectonic of theatricality in occupying the grey area shared by autonomy and semi-autonomy, the last part of this essay takes the notion of 'parallax' for a reading of two projects, Zaha Hadid's Phaeno Science Center and OMA's Casa da Musica, where some tectonic aspects of New Brutalism have been revisited.

History I

The turn to New Brutalism highlights a moment in the recent history of architecture that provided the architects of the 1950s with the theoretical means, starting with Britain, to distance their work from the modern architecture of the early 1920s. I will argue in this part of the paper that their central achievement was the transformation of the architectural image, first popularised through Mies van der Rohe's experimentation with various structural systems, from a painterly to a sculptural tectonics. Mies's work, even before moving to America, had already begun to dismantle the modernist architectural image, which was centred first of all on volume. These observations are suggested in Banham's theorisation of British architecture of the postwar era.[7] Of particular interest to the argument

presented in this essay is Banham's demonstration that the scarcity of skill and manpower played an important role in architects' choice of materials: brick and *béton brut*, to name the two most favoured dressing materials used in Brutalist architecture.[8]

In contextualising the idea of New Brutalism it is important to underline two interrelated developments, both formulated by Banham, and hinging on the architecture associated with Brutalism. In the first place, he criticises that understanding of tradition, which forgets all that has been achieved at the expense of selected traditions. The 'new' view of tradition, Banham wrote, demands 'total recall - everything that wasn't positively old-fashioned at the time it was done was to be regarded as of equal value'.[9] The earlier dislike of the modernists for British building townscape theories and the picturesque was balanced by a turn towards some aspects of classicism. The move was in part motivated by the publication of Rudolf Wittkower's *Architectural Principles in the Age of Humanism* (1949), le Corbusier's 'Modulor', and in particular the tradition of British Palladianism, circa 1940.[10] From this emerged the singularity of Brutalist architecture: its attention to tactile sensibilities associated with the vernacular; the idea that the building should be virtuous; and, most importantly, the idea that the building's meaning should be in itself. Thus, it was central to Brutalism, according to Banham, 'to construct moving relationships out of brute materials'.[11] All these were sought as the attributes of an architecture that, in addition to structural clarity, enjoyed a feeling for materiality, and spatial simplicity. It is the realisation of a deep respect for the affinity that the material provides, so the Smithsons declared in 1955, 'between building and man - which is at the root of the so-called Brutalism'.[12] It is this concern for the communicative side of architecture that renders image central to Brutalist architecture, and this in consideration of the fact that postwar mass-media culture was taken over by commercial interests.[13]

The question concerning what it is that provides architecture with internal meaning is discussed in one of Banham's essays, interestingly enough, entitled 'Stocktaking'. The text is printed in two parallel columns, respectively subtitled 'tradition' and 'technology'. Of particular interest is the fact that tradition carries equal weight in Banham's article, even though, and this seen in retrospect, it is the issue of technology that will enable the author to provoke an image of architecture centred on technique. The singularity of Banham's approach to technology is implied in the epigram of his essay, which reads: 'the world of "what is" suddenly torn by the discovery that "what could be" is no longer dependent on "what was"'.[14] Thus, his emphasis on 'what could be' draws the reader's attention to the potentialities of technologies available then, including the technologies of mass communication that were sought to foster postwar consumer culture.

Directing one's attention to the Hunstanton School (1949-54) and the Ham Common building [fig. 1] - designed by Stirling and Gowan (1958) - Banham ends the column on tradition with an emphasis on the positive role science and technology play for architecture. Underlining the differences between the Smithsons' and Mies's architecture, he writes: 'the nature of its [Hunstanton's] ultimate performance under stress is acknowledged in the use of plastic theory by the engineer responsible for the structural calculations.' There is a sense of realism in his statement that alludes to the British interest in scientific matters of the 1950s, aspects of which can be traced in the traditions of the arts and crafts movement - and this in reference to the clarity involved in Brutalist architecture, in making a distinction between what is structural and what is infill, brick or metal, or where and how to show the demarcation line between floors. These architectonic elements induced a departure from the painterly implications of the early modern architecture, in particular the concept of free-facade and its relation to structure, which more often than not evokes the volume rather

than the sculpted mass. Still, Banham's interest in materiality and its expression in the building was strong enough for him to admire the Hunstanton School, even though the building does not enjoy the perception of heaviness attributed to the best of Brutalist architecture.

Both the Hunstanton and Ham Common buildings utilise the notion of embellishment. Deeply rooted in the craft traditions of architecture, this term connotes refinement, and handling and detailing to suit the material chosen. In the Ham Common housing, 'load-bearing, fair-faced brickwork aspires to a common telluric sensibility: a treatment to the existential authenticity of brick'[15] and its many tectonic manifestations, walling and enclosure, roofing (vaulting) and covering. The presence of exposed brick, cast concrete and architectural details such as gutter elements, not only illustrates the Brutalist attempt to seek meaning in the poetics of construction, but also signals a resolute critique of the priorities of interwar modernism, which professed a radical departure from such detailing. In addition to the association of Hunstanton with the tectonics of Mies's buildings on the campus of IIT (circa 1942), it is the ethical involved in the Smithsons' handling of material(s) which makes their work different from the aesthetic of abstraction implicit in Mies's American period.[16] Banham follows a similar line of considerations to differentiate the Ham Common from Le Corbusier's Jaoul House. The reader is told that the cuts in the brickwork cladding of the Ham Common are 'calculated to the limits of the load-bearing capacity - a decision that is more responsible than any Twenties-revivalism for the use of dropped windows for their inverted-L shape'.[17]

The cut frame windows of the Ham Common building are remarkably similar to those of Louis I. Kahn's Richards Medical Research Building (1957-61), whose brick cladding at the corners gives into a tectonic figuration of beams. The analogy is important here because Banham ends the technology

section of his essay with Kahn and what is called the 'topological' science of the Richards Medical Building. Recalling Mies again, he concludes that Kahn's solution 'brings us to the point of fusion of the technological and traditional aspects in architecture today. Kahn is sympathetic to, and has been classed with, the Brutalists'. And he continues, 'on both sides, enterprising and intensive scrutiny of tradition and science appears to suggest a way out of a dilemma, if not a solution to a problem'.[18] What is involved here is of historico-theoretical import: that any re-thinking of architecture, within the traditions of modernism and after Brutalist architecture, should pay attention to the dialectics informing the two opposing poles of tradition and technology. Even though Banham will soon embrace the ethos of Futurism, the opposition between tradition and technology he establishes here has obviously got a foot in the door of the nineteenth-century architectural discourse. Noteworthy is the fact that the idea of topology, once overshadowed by the modernist tendency for elementary Platonic geometry, had long been current in British architectural theory, going back to the second half of the nineteenth century, and resurrecting in the townscape and picturesque movements.[19] What was new in Banham's view of topology, however, was an image of architecture whose structural concept had achieved both organisational and aesthetic expression. There is enough substance in Banham's discussion of issues such as tradition, technology and topography to support the weight given to the architecture of Brutalism in this essay's re-thinking of the tectonic in the purview of digital techniques and their aesthetic implications.

In retrospect, but also in consideration of the contemporary state of architecture, one might suggest that Banham's formulation of Brutalism has forced architecture to take an inward turn, reiterating its disciplinary themes in the light of technical developments and, at times, motivated by discourses unfolding outside of architecture. Under this condition, call it postmodernism if you wish, the image

Fig. 1: James Stirling & James Gowan, Ham Common apartment, London, 1958. Image from David Leatherbarrow and Mohsen Mostafavi, *Surface Architecture* (Cambridge, Mass.: MIT Press, 2002).

has emerged as the main communicative aspect of architecture, if not that which architects value the most. This is not only suggested in Banham's advocacy for Brutalism and its wish to depart from the principles of the International Style architecture. Anthony Vidler reminds us of the significance of the notion of 'image' for art history, first posed by Ernst Gombrich's introduction of the role the beholder plays in projecting an image into the thing looked at,[20] and resurfacing in Banham's characterisation of Brutalism. For Vidler, Banham's rapprochement to the idea of image 'was not only a passive symbol of everyday life or technological lenses, but an active participant in the viewer's sensory perception'.[21] Reading these lines in the context of the 1960s turn to semiotic theories and structuralism, it is not too far-fetched to say that a concern for communication was already at work in the architecture of Brutalism. This concern was suggested in the very sub-title of Banham's book on Brutalism, 'Ethic or Aesthetic'. The notion of ethic[22] in Brutalism for Banham was image-laden in its fascination with naked materials: a commitment to 'truth to material' in reference to vernacular architecture and its effectiveness in communication, but also to the affective qualities of a building.[23]

Not all works associated with Brutalism drew from vernacular familiarities and classical-inspired massing. Consider James Stirling's Engineering Building, Leicester University (1959), where a preference for weighty static effects is balanced with poised dynamics that are absent in the mainstream of the architecture of the late 1920s. In this building, Sterling uses architectonic elements whose communicative potentialities do not tally with those of the Ham Common, where the observer can speculate on the architectonic logic underpinning the cuts implemented in the facades by counting layers of brick. This is evident in the massing of the Engineering Building's lecture hall and its composition in reference to the tower. The image registered here draws from what might be called a constructive

montage. It relies on the beholder's potential experience of weight and support in a theatrical moment. To sustain the suggested image, 'certain elements of structure are deliberately suppressed'. The tower, for instance, Kenneth Frampton continues, 'rests on supports of deliberately minimized dimensions, and the surface of relation between these exposed concrete supports and the tiled skin of the concrete/cantilevered lecture hall is left ambiguous'.[24] Still, the section demonstrates the tectonic rapport between the earth-work and the so-called frame-work. The cuts and juxtaposition of the heavy massing of the lower level make the tower soar high. If this building of Stirling marks a departure from the notion of tectonic registered in the Ham Common and in Maison Jaoul, the ethical side of Brutalism is lost in the general postmodernist tendency to simulate historical forms.

The Brutalist concern for the ethics of materiality and construction, however, was given a new twist in Frampton's formulation of the thematic of a 'critical practice', first discussed in his famous 'Six Points of an Architecture of Resistance'; then in 'critical regionalism', later to be channelled through the historicity of the tectonic in contemporary architecture.[25] In addition to issues central to his theorisation of the tectonic, what makes Frampton's work of interest here has to do with a semi-autonomous notion of architecture that interestingly enough hinges on Jürgen Habermas's famous claim for the incompleteness of modernity.[26] The paradox between universal and national, implied in Frampton's critical regionalism (in opposition to Robert Venturi's idea of both/and), demands a rereading of the culture of building, the tectonic being the most critical one, in the bedrock of the radical aspect of modernisation, and its implications for contemporary neo-avant-garde architecture.

While Frampton did not go this far, one can take the suggested paradox and propose a different reading of the incompleteness of modernity. The

idea is not to say that 'modernity is still alive' and that there is no validity to postmodern discourses. The intention rather is to make a pause - suspend all good and bad expectations, and thus 'to provide culture with running room'.[27] What is involved in this reading is the very possibility of weakening the notion of zeitgeist while accepting the singularity of modernity, that is, the pressure for constant change, flux and uncertainty. Two issues need to be addressed. Firstly, a weak idea of modernity enables architecture to re-code the thematic of the culture of building based on its own internal dialectics.[28] Secondly, a quasi-autonomous approach to architecture is useful if reiterated beyond dichotomies framing modernity and tradition, or global and local. What is involved here is that, accepting the nihilism of modernity, the very traditions of architecture should be re-coded in the light of a project of deconstruction implicit in Semper's theory of architecture. This is important because in his theorisation of architecture, elaborated in the last part of this essay, there is no room for the so-called spirit of time, or the long-lived classical hegemony. What makes Semper important for the objectives of this essay is that, on close examination, his theory provides 'running room' for a different interpretation of the matrix of a semi-autonomous architecture. This is evident in his argument that through embellishment the literal dimension of material and technique is transformed into artistic expression, which belongs to the cultural domain.

The idea that *technique* can play a mediating role is important since, in the aftermath of World War II, technology has not been operating merely at the technical level; the cultural has become a technical apparatus in its own right, both in production and consumption processes. By the 1950s however, architects had to address the limitations the International Style architecture had imposed on the art of building. It is in this line of consideration that this essay wishes to present the New Brutalism as a critical practice, broader aspects of which, as far as

contemporary debates on autonomy are concerned, are registered in Antonio Negri's 'grammar of politics'.

One cannot but agree with this Italian thinker and activist that in late capitalism we are 'engulfed in commodity fetishism - without recourse to something that might represent its transcendence. Nature and humanity have been transformed by capital.'[29] Under these conditions, and having lost the window of opportunity to reach *outside* the world produced by capital, Negri suggests that the thematic of a creative resistance should be motivated by the present ontology,[30] and not by readymade prescriptions that fail to recognise the historicity of postmodern conditions, understood either in terms of what has already been said about the notion of the incompleteness of modernity as a project (Habermas), or the acceptance of postmodernism as a periodic shift in the long history of modernity (Jameson). These two positions and many others available, the discussion of which should not take place here, map a specific state of subjectivity, which in return has considerable bearing on contemporary architectural debates. For Negri, however, subjectivity could not 'be allowed to lose itself in the postmodern context, and be dissolved in the flat circulation of commodities and significations. The resisting subject emerged as an inventor of meaning, as the synthesis of intelligence and cooperation.'[31]

With this having been said, then, it is plausible to map a critical architectural praxis that in one way or another perpetuates the singular benchmarks set by New Brutalism. Of particular interest to this proposition is the movement's sensibility to material, construction, and the tectonic of heaviness. The latter should not only be seen in contrast to the 'painterly' implied in the architecture of the 1920s, first addressed by Heinrich Wölfflin's theorisation of style in art history.[32] The weakening of the hegemony of the painterly since and through the architecture of Brutalism offers the chance to rethink the tectonic

in association with sculpted forms. Furthermore, aside from issues such as whether there should be a gap between an architect's rapport with theory (Smithsons) and that of the historian's theorisation of history (Banham), the preceding discussion wanted to highlight the strategic distance Brutalism maintained from the tropes of the International Style architecture. Central to the implied departure is the movement's redefinition of the scope of architectural discipline. Of further interest is Brutalism's aspiration for monolithic massing, which, if re-approached in the purview of the tectonic of theatricality, has the potential to present an alternative to the current architectural tendencies for abstract and digitally-charged playful forms. This is important not only because in the architecture of Brutalism the aesthetic and the structural coincide, but also because the image implied in the tectonic is unique in many ways; be it topological (Banham), a derivative of the simulation of historical forms (Venturi), or finally, formalistic of the kind propagated by Eisenman, to mention a few interpretations of image in contemporary architectural theories. The significance given to the New Brutalism in this essay also demonstrates the movement's unnoticed tendency towards autonomy, the criticality of which is better understood if considered alongside various theories of autonomy permeating the architecture of the 1970s, a subject that will be taken up in the next section.

History II

Writing in the late 1930s, Clement Greenberg suggested that, in order to isolate itself from the imperatives of a market economy and the revolutionary fever experienced by the Soviets of those decades, the avant-garde had to navigate in a realm devoid of any contradiction. In search of art's purity, Greenberg speculated that the avant-garde had 'arrived at abstract or non-objective art'.[33] What should be underlined here is the aesthetic implication of the concept of abstract art, which, as Greenberg reminds his reader, alludes to the interest in autonomy, and the turn for the 'disciplines and

crafts, absolutely autonomous, entitled to respect for their own sakes, and not merely as vessels of communication'.[34] In making the point that in a given situation diverse artistic tendencies operate simultaneously, Greenberg benefited from the aesthetics implied in the Kantian concept of autonomy, one important consequence of which was the claim that each art has its own specific language the opacity of which should be emphasised.[35]

Even though Greenberg's theory of art was primarily concerned with the state of modern painting, the only way to sustain architecture's 'opacity' is to highlight its rapport with techniques, the main intention of which is to break into architecture's opacity in the first place. The implied paradox is central to Banham's remarks concerning the dialectics involved in Brutalist architecture's relations with its own conditions of production processes: how to retain the overall project of modernity, and yet stand against prevailing formal and aesthetic conventions? Earlier in this essay it was suggested that, besides the issue of technology and tradition, what was also unique to Brutalism was its noted inclination for autonomy. This last observation suggests that the interest of the New Brutalism in materiality and other aspects of the culture of building heralded the 1970s move towards autonomy in architecture.

Bernard Tschumi, for one, has argued that the 1970s drive for autonomy was sought against those who would propagate architecture as a means of representing cultural and regional identities. Both formalism and regionalism, according to him, dismiss 'the multiplicity of heterogeneous discourses, the constant interaction between movement, sensual experience, and conceptual acrobatics that refute the parallel with the visual arts'.[36] Tschumi's statement speaks for architecture's occasional move to internalise ideas and concepts that are extraneous to the discipline. His notion of autonomy, however, pushes architecture away from those aspects of the culture of building that were formative for the archi-

tecture of Brutalism.

Now, if it is correct to say that through modernity architecture had to adjust its disciplinary history to the forces of modernisation, then, the historicity of that awareness and its relevance to the situation of postwar architecture can be detected in Eisenman's following statement: 'If in the interiority of architecture there is a potentially autonomous condition that is not already socialized or that is not already historicized, one which could be distilled from a historicized and socialized interiority, then all diagrams do not necessarily take up new disciplinary and social issues. Rather, diagrams can be used to open up such an autonomy to understand its nature.' And he continues: 'If this autonomy can be defined as singular because of the relationship between sign and signified, and if singularity is also a repetition of difference, then there must be some existing condition of architecture in order for it to be repeated differently. This existing condition can be called architecture's interiority.'[37] This rather long quotation, written in retrospective view of his work, reveals issues pertinent to any discussion that concerns the return of autonomy to architectural theory. Since, and through, the inception of New Brutalism, it is not a stretch to say that there might have been something in the intellectual air of the 1970s encouraging architects to see autonomy as a conceptual tool capable of re-energising the situation of architecture.

To reinvent itself during the 1970s, architecture was left with a number of choices. Several architects theorised architecture's borrowing of concepts and ideas developed in other disciplines. One is reminded of Tschumi's notion of event derived from film; Rem Koolhaas's strategic re-rapprochement to surrealism, and Steven Holl's aspiration for a phenomenological interpretation of the architectural object. Others, including Eisenman and Aldo Rossi, chose to look into the interiority of architecture, a position radically different from New Brutalism's

interest in tradition, as discussed previously in this paper. For Eisenman and Rossi, the autonomy of architecture is centred in a formalistic interpretation of grid, plane, and type. Eisenman's inclination for autonomy concentrates on a postmodernist reading of Le Corbusier's Dom-ino frame. Having established the latter's conceptual contribution to modernism, Eisenman revisited formalism in what is called 'cardboard architecture'. Regardless of Eisenman's criticism of the Italian architect,[38] the fact remains that Rossi's work sheds light on the political dimension of architecture, a subject dismissed by Eisenman and the architects who supported the idea of Brutalism.

Pier Vittorio Aureli has recently presented a picture of Rossi's work, the historical significance of which is associated with the discourse of autonomy developed by the Italian left movement of the 1960s. Criticising the American interpretation of autonomy, championed by Eisenman and Colin Rowe, Aureli discusses the architectonic implications of an autonomy that set out to reverse the interests of working class people, primarily defined and implemented by capitalism. For Rossi 'the possibility of autonomy occurred as a possibility of theory; of the reconstruction of the political, social, and cultural significances of urban phenomena divorced from any technocratic determinism'.[39] While in the late 1960s the ideological dimension of capitalism found a temporary home in the renewed interest in humanism, Rossi sought the *poiesis* of architecture in typological reinvention.[40]

In retrospect, one can argue that Rossi's radicalism did not go far enough. Whilst re-interpreting architecture's autonomy, typological research did not open itself to the forces essential for the very need to reiterate autonomy. What this criticism wants to establish is that autonomy cannot stand without its opposite. Foster, for one, is correct in saying that the antinomy between aesthetic autonomy and its socio-historical imbrication are the two sides of the

same coin. His enumeration of a great number of art history concepts formulated in different periods ensures the need to couple the historical dimension of the subject with a theoretical inclination that sets out to establish the necessary rapport between a particular work of art and its subject.[41]

While there is more to follow of the centrality of communication for the tectonic of theatricality, what needs to be added here is the way in which the idea of the tectonic (as presented in this essay) responds to the historicity of the dialectics between autonomy and semi-autonomy. It was suggested earlier that the tectonic of theatricality has the potential to communicate with the cultural at large. Affirming the nihilism of technology, the tectonic of theatricality seeks new ways of articulating the dialogical relation between cladding and structure, the roof-work and the earth-work, to mention themes central to Semper's theory of the tectonic. What is involved here is a strategic reversal showing the extent to which the external, digital reproductivity for instance, can be progenitor of a different tectonic figuration.

Parallax

Discussing the work of Kant and Marx, Kojin Kara-tani suggests that parallax is something 'like one's own face in the sense that it undoubtedly exists but cannot be seen except as an image'.[42] The philosophical position on parallax centres on the antinomies informing the subject/object dialogue.[43] Following Merleau-Ponty, Steven Holl suggests that the spatial 'criss-crossing' experienced in the Helsinki Museum of Contemporary Art, 'involves turns of the body and the parallax of unfolding spaces'.[44] Here the term is used to present a non-organic relationship between the core-form and the art-form, between construction and architecture. To repeat what has already been said, the excess in architecture alludes to the gap that informs the tectonic. 'Inform' here does not operate in a deterministic way. The art-form does not mirror the core-form. Rather it performs like this: 'sure, the picture is in my eye, but I am also in the

picture'.[45] Therefore, 'excess' is already included in the construction: it is neither part of the subjective projection of the architect, nor a mirror image of a constructed form. One implication of this reading of the tectonic suggests that the very constructive logic central to tectonics might, paradoxically, deconstruct the positivistic interpretation of the impact of technology on architecture. Only in this way can one do justice to Semper's theory of the tectonic, and discuss the import of material and technique, but also do justice to the aesthetics registered in the work of Hadid and Koolhaas, to be discussed in the following pages. Another implication is the possibility to differentiate the formative nature of 'technique' in the formation of the culture of building, and to rewrite the history of architecture in consideration of the economic and technological transformations that were endemic to the transgressive move from *techne* to technique, and from that of the tectonic to montage.[46] In this mutation, 'image' does not vanish. Its transformation remains internal to construction. And yet the image permeating contemporary architecture differs from that attributed to the architecture of Brutalism. In the latter case, the image was informed by the fusion of the aesthetic with the structural. In the age of digital reproduction, instead, the spectacle Guy Debord attributed to commodities is tailored, reproduced, and personalised *ad infinitum*. This historical unfolding will be taken here to demonstrate 'the kind of critical thinking that image can make possible'.[47]

There are many ways to explain the usefulness of the proposed historical paradigm. It allows for a comprehensive understanding of the dialectics involved in the visibility and/or invisibility of construction in different periods of architectural history. That the theme of construction was invisible in Renaissance architecture, for example, is suggestive of a situation in which metaphysics takes command, and the objects are displaced 'in the illusory space, and not according to their relative value within the culture', to recall Frampton's reflections on perspec-

Fig. 2

Fig. 3

Fig. 4

Fig. 2, 3 & 4: Zaha Hadid, Phaeno Science Center, Wolfsburg, Germany 2005. Images courtesy of Hadid Architects.

tive.[48] To understand the full connotation of the theoretical premise presented here, the discussion should turn to the landscape of modernity, and Semper's discourse on the tectonics.[49]

Briefly, central to Semper's theorisation of architecture is the transgression of its limits framed in the classical theory of imitation. Semper's argument that the constructive aspects of architecture are driven by the four industries (textile, ceramic, masonry and carpentry), and the importance he attributed to the notion of clothing, suggests that the German architect was neither a materialist nor a positivist. In explaining how skills developed and motifs emerged in the four industries mentioned above, he goes further suggesting that the essentiality of technique in making, even in weaving a simple knot, should not be dismissed. This is implied in Semper's discussion of *Stoffwechsel*, where skills and techniques immanent in the art of building play a significant role in transforming and modifying motifs from one domain of cultural productivity into those of architecture. The modification is, however, carried out by techniques that are architectural, in particular the primacy of the principle of cladding, and the *lawful* articulation of 'surface': not the actual surface of the raw material, but one that has already been prepared (the constructed form) to receive motifs, linear or planar. Thus we see the criticality of a Semperian notion of semi-autonomy that aims to establish an immanent relation between purpose, material/technic and the actualisation of what is called the structural-symbolic dimension of the tectonics of theatricality.[50]

Considering his passion for Renaissance architecture, in contrast to the Gothic, it is plausible to say that Semper saw architecture both in the light of the disintegration experienced at the dawn of modernisation, and the richness of Renaissance architecture in covering masonry-constructed form anew. His methodology neither makes a linear connection between a presumed origin and the architecture of the nineteenth century, nor intends to replace one style by another. Seemingly, Semper was able to see in modernity the very disintegrated nature of the art of building. Semper's theory of the tectonic allows for a different reading of the import of image in architecture.

In discussing architecture in terms of the tectonics of the core-form and the art-form, Semper's theory retains an image which is architectural by nature. What this means is that architecture is not a direct product of construction; and yet the core-form (the physical body of the building) inevitably puts architecture in the track of technological transformations and scientific innovations. Herein lies the ethical dimension of the tectonics, which not only recalls the architecture of New Brutalism, but which can also be traced back to the long history of architecture's confrontation with technique. Discussing the notion of *techne* in Alberti's discourse, Tafuri wrote: 'surely it is tragic that the same thing that creates security and gives shelter and comfort is also what rends and violates the earth.' He continues, 'technology, which alleviates human suffering, is at the same time an implacable instrument of violence.'[51] This is to counter Banham's over-valourisation of technology. The paradox evoked in Tafuri's statement can be extended to the Semperian notion of art-form: in suspending the Kantian notion of beauty, centred on the subjective inner imagination, the art-form remains the only venue by which architecture is charged with aesthetic sensibilities that are, interestingly enough, informed by perceptual horizons offered by the world of technology. The art-form also reveals tactile and spatial sensibilities that are accumulated through the disciplinary history of architecture. Therefore, while the core-form assures architecture's rapport with the many changes taking place in the 'structure' of construction, the art-form remains the only domain where the architect might choose to confer on the core-form those aspects of the culture of building that might side-track the formal and aesthetic consequences of 'image building', and yet avoid dismissing the latest tech-
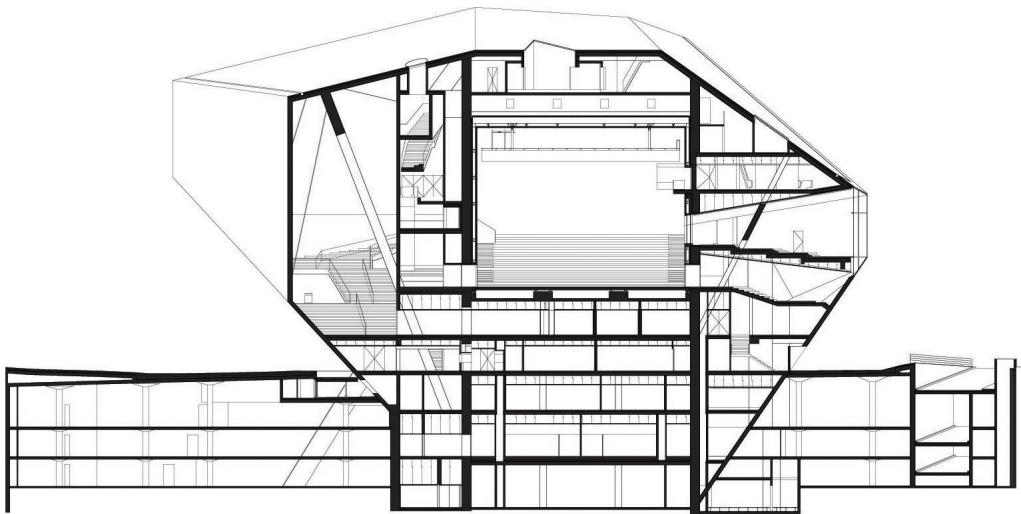
Fig. 5

Fig. 6

Fig. 7

11   02

Fig. 5, 6 & 7: OMA, Casa da Musica, Porto, Portugal, Images courtesy of the Office for Metropolitan Architecture (OMA)

nological developments.

One can provisionally conclude that any theorisation of 'criticality' for the present situation should take into account the importance Banham charged to technology. He went so far as to take it on himself to 'free the mechanics from the academics'.[52] If one agrees with the proposition that construction is ontological to architecture, then, image prevails over architecture even when freed of the so-called academics. The discussion can be applied to the image of mechanics implied in the work of Cedric Price, Archigram, and Buckminister Fuller, to recall a few heroes of Banham. To stay with the premises outlined earlier in this essay, it would be more useful to examine one of Zaha Hadid's projects where heaviness in the architecture of New Brutalism is transfigured into the tectonic of theatricality. Her architecture is of further interest: the stereotomic-looking architecture of the Phaeno Science Center (2006) purports a dynamic image different from the mechanical playfulness of Russian Constructivism, a body of work attended by the architect since her early career.

Starting from the generic potentialities of the Dom-ino system, the Phaeno Science Center pushes the Semperian notion of the earth-work and the frame-work to a dramatic stage [fig. 2]. Standing above a buried volume, the building's ten huge cone-shaped support elements hold up a concrete slab, itself the ground for the building's main steel frame structure. The underground volume effectively acts as a raft, floating the whole structure above less than adequate subsoil for traditional pad and footing construction. Recalling Kahn's notion of 'empty column', the conical piers are conceived as part of the spatial organisation of the volume [fig. 3]. They are purposely detailed to appear to be rising up from the sculpted ground plane. Their dynamic figuration, however, distinguishes them from the heavy *pilotis* of the Marseille apartment block. The theatricality of the entire volume, including the

pleats and cuts introduced in the concrete enclosure, mark another departure from the ethos of the New Brutalism. In the Phaeno Center, like many other contemporary cases, the ingenious attempt to animate and smooth the surface of concrete has weakened the dull and porous tactile qualities of this material remembered from the early industrial structures.[53] Gone also is the logic of cuts informing the facade of the Ham Common building, for example. In Hadid's hands, every design decision is used to exaggerate the animated body of the building. Along the southern face, for example, the cut is used to express a glazed opening on the diagonal, adding more dynamic movement to the poised form. Even the massive truss system of the roof folds and bends, here and there, as in a dance with the floor plane whose undulating surface blurs the boundary between the wall and the floor elements [fig. 4].

Call it 'social construction of technology',[54] the tectonic of theatricality allows a material such as concrete to operate as an agent of architecture. It also brings forth various dichotomies shaping the transformational process and versatility of building materials. In Hadid's work, the heaviness evaporates into an image that is in focus with the spectacle permeating the present culture, and thus turning architecture into an ornament. This aspect of contemporary architecture, discussed in a different context,[55] is reiterated here to connect the subject with the art of stereotomy. Having roots in stonecutting, military engineering, mathematical geometry, and in architectural composition, stereotomy succeeded in casting a different light on the tectonics of column and wall, and in making a stylistic distinction between Gothic and classicism.

Throughout pre-modern theories of architecture it was believed that a structure should both look and stand stable. In seventeenth-century France, according to Robin Evans, '*trompes*, the most advanced theory of stonecutting, flouted this rule by appearing to defy gravity'.[56] While used to facilitate
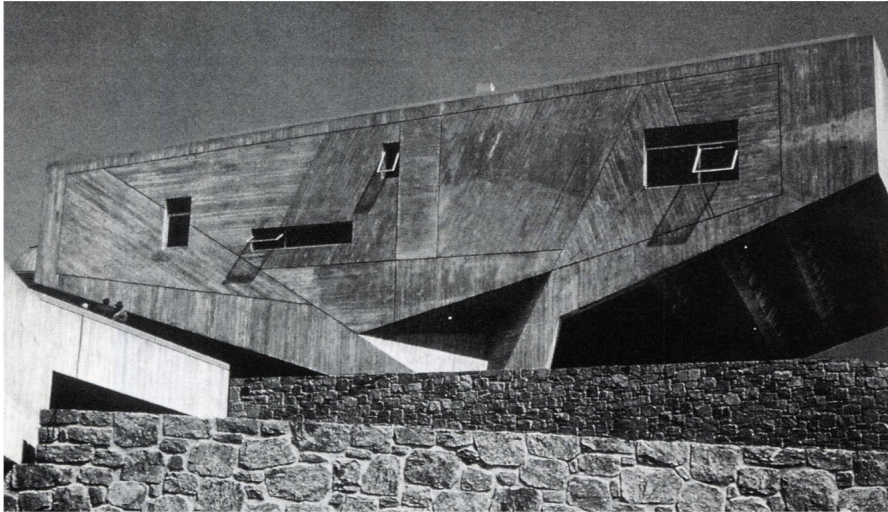
Fig. 8

Fig. 9

Fig. 8: Marcel Breuer, University Heights, New York University, New York, 1961. Photograph courtesy of the author.

Fig. 9: Zaha Hadid, Cagliari Museum, Italy. Image courtesy of Hadid Architects.

the addition to an exciting building, the *trompe* was conceived as a structure in its own right. It was built out of drawings (called *traits*) where the geometric matrix of lines defined the stereotomic nature of the surface. The implied shape then dictated the cuts to be introduced into the various pieces of stone used in a *trompe*. In Evans's investigation, there is an explicit hint at the contrast between the perception of lightness of geometry in a drawing and heaviness of the depicted stone. Also suggested is the fact that stereotomy lends a means for differentiating the tectonic at work in the classical and Gothic buildings. In the latter case, for example, the rib was built first and the surface between filled in later. Still, a number of architects used stereotomy to think of forms that could be 'ungothic and also unclassical', and yet not baroque. In the choir vault of Gloucester cathedral (1367), for example, ribs are seemingly attached to a huge cambered sheet that covers the entire choir. Thus, in this cathedral the emphatic distinction between column and wall is erased, along with the tectonics that hinged on the relation between structure and ornament.[57] According to Evans, there are two kinds of line in the drawings used for stonecutting: one light and the other heavy, 'the imaginary lines of geometrical construction and the lines indicating contours of the thing drawn'.[58] This observation recalls Hadid's long-time occupation with drawings, most of which deliver a pleasant image of lightness and dynamism, and an architecture that recalls the qualities of *trompe*, a constructed ornament. Here is what Frampton has to say about one of the architect's early works, the Hong Kong Peak, where 'to conceive of the building as an artificial mountain is to render the floor as a faceted escarpment and to project the roof as a dematerialised cavern'.[59] Furthermore, concepts such as fold and nonlinearity, and the popularisation of digital software press for complex geometries, the architectonic of which, next to the tectonic, underpin the architecture of the closing decade of the last century.[60]

Whilst geometry is central to the image-laden drawings produced by digital machines, there are several contemporary architects whose work attempts to intermingle geometry with sculptural tectonics. Beside Hadid's architecture, one is reminded of OMA's Casa da Musica in Porto [fig. 5], which, similar to Claude-Nicolas Ledoux's House of Agricultural Guards, looks as if it has been tossed into its territory like a stone [fig. 6]. The theatrical positioning of this monolithic volume in relation with the ground is evident in the way that the entry slab protrudes as it steps down. Here also, theatricality is associated with the stereotomic cuts, the two major ones being those that charge the building with directionality. These, interestingly enough, parallel the orientation of the building with the city. The secondary cuts are introduced to support the suggested orientation, which happens to follow the spatial organisation of the building, detectable in its longitudinal section [fig. 7].

There are other contemporary architectural examples where the concept of cut is used to suspend the spectacular look permeating digital architecture.[61] Instead of emulating the playful forms that relate architecture with the present image-oriented culture, the cuts implemented in the monolithic mass of the Casa da Musica should be understood in the context of 'competing mediating disciplines, of rival forms of knowledge, to which architecture, with its occasional claim to autonomy, has long sought to belong'.[62] The present turn to monolithic architecture is of further interest; its tectonic cuts have the potential to shortcut the postmodern approach to communication. In the second place, the anonymity implicit in a monolithic form (its un-approachability) is of critical importance in reference to both the autonomy issue, and contemporary architects' euphoria for the spectacular images garnishing digital architecture.

To give further twist to the issues discussed here, it is useful to return to Hadid. In the Phaeno Center,

the idea of cut is implemented to produce an art-form (image) standing on the borderline of spectacle and theatricality of the kind attributed to the *Casa da Muscia*. These two buildings demonstrate a tectonic figuration that avoids the two main problems which 'arose as soon as the illusion of imitating stone structures was abandoned; the first had to do with the exterior expression of the interior structure, and the second dealt directly with surface of the building'.[63] In addition to its structural possibilities, what occupied the architects most during the 1950s was the aesthetic (appearance) of exposed concrete. Consider Marcel Breuer's design for the Begrisch Hall (1967-70), the theatricality of which precedes the two contemporary buildings discussed here [fig. 8]. In the Begrisch Hall, the aesthetic is enhanced through stereotomic surfaces.[64] Similar to most architectural monolithics, the exterior economy of these buildings is achieved 'at the cost of formal and material excess and calibrated for intended effects'.[65] The main volume of the Phaeno Center, for one, is seemingly the result of cuts and pleats implicated in a rectangular prism. It was suggested that the building is generically a Corbusian *piloti* structure. The tectonic of theatricality (stereotomic surfaces) that informs Hadid's building departs from both modern and classical traditions, for which structure 'was less a preoccupation of the collapse of buildings than a precaution against the collapse of the faith in the rectangle as an embodiment of rational order'.[66] This aspect of the Phaeno Center is what makes it different from a more recent project of the architect, the Cagliari Museum in Italy [fig. 9]. The latter is baroque and atectonic; its epidermal smoothness justifies the surface on its own terms.

The analysis of buildings as presented here is of critical importance. On the one hand, it proceeds with the knowledge that ontologically, the state of modernity experienced in late capitalism is changed; on the other, it intends to perpetuate a different understanding of disciplinary tradition(s) of architecture. The trajectory of these two ontological

projections confirms the importance of the idea of parallax for a critical practice that is centred on the tectonic of theatricality. The latter can be defined as a parallax object, but it does not connote L. Kahn's famous aphorism, 'what the building wants to be'. In late capitalism, and thanks to the digitalisation of architecture, the art of building has stepped into the realm of commodities, the world of image building. The current public esteem for architecture has little to do with the tectonic. Rather it is induced by 'traumatic distortion', to use Žižek's words, that is central to the present state of cultural consumption. The smooth surface-envelope of the Cagliari Museum, for example, displays a collection of biological and zoological images. This phenomenon in architecture, paradoxically, can be apprehended through a perspectival shift in the tectonic discourse. The aim is not to write design prescription for architects. As a project, and following the reading of Brutalism presented in this essay, it intends to 'rescue' those elements of the culture of building that in the present image-laden circumstances are anamorphically distorted.[67] Finally, there is a degree of anonymity in the tectonic that is not opaque and inaccessible, and yet stops short of communicating either as a familiar sign of historical origin, or an image extraneous to the thematic of the culture of building. The tectonic has the capacity to reach for a perception of surface that neither is calculated to the limits of load-bearing forces (to recall Banham), nor tallies with the skin dressing of the organic forms produced by digital means. In the dialectics of autonomy and semi-autonomy, tectonics operates like an antinomy. In an attempt to reach that which is architectural, the tectonic facilitates architecture's entanglement with the constructive structures of capitalism.

Earlier in this essay it was suggested that there is a historiographic dimension in Semper's investigation of the cosmogonic origin of architecture. Starting from this premise, and presenting a different reading of New Brutalism, this essay wanted to establish the thematic of a constructive criticism of

contemporary architecture. Dismissing both historicism and the canon that relies on the delirium of 'once upon a time', the two projects, the Phaeno Center and the Casa da Musica, were chosen with the purpose of discussing the significant role the architectural traditions of Brutalism play in exhibiting the tectonic essence of architecture without effacing the aesthetic belonging to the contemporary image-laden culture.

Notes

1. Hal Foster, *Design and Crime* (London: Verso, 2002), pp. 100-03.
2. This departure, nevertheless, embodied the great many contradictions that modern architecture had to face in the course of its historical development. For the complete list of the recurrent themes that, according to Tafuri, the project of the enlightenment enforced on architecture, see: Manfredo Tafuri, *Architecture and Utopia: Design and Capitalist Development* (Cambridge, Mass.: MIT Press, 1976), p. 3.
3. Mitchell Schwarzer, 'Ontology and Representational in Karl Botticher's Theory of Tectonics', *The Journal of the Society of Architectural Historians*, 3 (Sept. 1993), p. 271.
4. Bernard Cache, 'The Tower of Winds of ANDRONIKOS of KYRROS', *Architectural Theory Review*, forthcoming, 14, 1 (2009).
5. Hal Foster, 'Image Building', in *Architecture Between Spectacle and Use*, ed. by Anthony Vidler (New Haven: Yale University Press, 2008), pp. 164-79.
6. See: Gevork Hartoonian, *Ontology of Construction* (Cambridge: Cambridge University Press), 1994.
7. For a comprehensive analysis of these issues, see: Stanley Mathews, *From Agit-Prop to Free Space: The Architecture of Cedric Price* (London: Black Dog Publishing, 2007).
8. I draw the reader's attention to the series of the journal *Architectural Review* published in the 1960s and edited by Reyner Banham, starting with 'Architecture After 1960', *Architectural Review*, 427, 755 (January 1960).
9. Reyner Banham, 'Stocktaking', *Architectural Review*, 127, 759 (February 1960), p. 98.
10. Reyner Banham, *The New Brutalism: Ethic or Aesthetic* (London: The Architectural Press, 1966), pp.12-15.
11. Ibid., p. 16.
12. From the Smithsons' manifesto first published in January of 1955, here taken from Banham, *The New Brutalism*, p. 46.
13. See Lauren Stalder, 'New Brutalism, Topology, and Image: some remarks on the architectural debates in England around 1950', *The Journal of Architecture* (June 2008), pp. 263-81.
14. Banham, 'Stocktaking', p. 93.
15. Kenneth Frampton, *Studies in Tectonic Culture* (Cambridge, Mass.: MIT Press, 1996), p. 360.
16. On this subject see Stalder, 'New Brutalism, Topology, and Image'.
17. Banham, 'Stocktaking', p. 99.
18. Ibid., p. 100.
19. Stalder, 'New Brutalism, Topology, and Image', p. 268.
20. E. H. Gombrich, *Art and Illusion* (Princeton: Princeton University Press, 1960), Part III in particular.
21. Anthony Vidler, *Histories of the Immediate Past* (Cambridge, Mass.: MIT press, 2008), p. 137.
22. Banham, *The New Brutalism: Ethic or Aesthetic.*
23. Richard Llewelyn-Davies, 'Human Science', *Architectural Review*, 127, 757 (March 1960), p. 189.
24. Kenneth Frampton, *Labour, Work and Architecture* (New York: Phaidon Press, 2002), p. 262.
25. For Kenneth Frampton's contribution to 'critical practice', see Frampton, *Labour, Work and Architecture*.
26. Jürgen Habermas, 'Modernity-An Incomplete Project', ed. by Hal Foster, *Anti-Aesthetic* (Washington: Bay Press, 1983), pp. 3-15.
27. Foster, *Design and Crime*, p. 25.
28. Here I am benefiting from: Gianni Vattimo, *The End of Modernity* (Baltimore: John Hopkins University Press, 1988). Also see: Gevork Hartoonian, 'A Monument to the End of Modernity: the Implications of Gianni Vattimo's Discourse on Architecture', in *On Architecture, the City and Technology*, ed. by Marc M. Angelic (Stoneham: Butterworth-Heinemann, 1990), pp. 77-79.
29. Antonio Negri, *The porcelain Workshop* (London: Semiotext(e), 2008), p. 25.

30. Ibid., the last two chapters.

31. Ibid., p. 94.

32. Heinrich Wölfflin, *Principles of Art History*, trans. M.D. Hottinger (New York: Dover, 1950).

33. Clement Greenberg, 'Avant-garde and Kitsch', in *Art and Culture: Critical Essays* (Boston: Beacon Press, 1961), p. 5. For a critic of Greenberg, see T. J. Clark, 'Clement Greenberg's Theory of Art', *Critical Inquiry*, 9, 1 (Sept. 1982).

34. Clement Greenberg, 'Towards a Newer Laocoon', in *Collected Essays* (Chicago: The University of Chicago Press, 1986), p. 28. The essay was originally written in 1940.

35. Ibid., p. 32. He continues, the 'history of avant-garde painting is that of a progressive surrender to the resistance of its medium, which resistance consists chiefly in the flat picture plane's denial of efforts to "hole through" it for realistic perspectival space'. This is a provocative statement even though his understanding of 'functionalism' as the medium of architecture is short-sighted. Ibid., p. 34.

36. Bernard Tschumi, 'Architecture and Limits III', *Art Forum*, (September 1981), p. 40.

37. Peter Eisenman, 'Diagram: An Original Scene of Writing', *Diagram Diaries* (New York: Universe Publishing, 1999), p. 31.

38. Peter Eisenman, 'The House of the Dead as the City Survives', in *Aldo Rossi in America: 1976-1978* (New York: Institute of Architecture and Urban Studies, 1979), pp. 4-15.

39. Pier Vittorio Aureli, *The project of Autonomy* (New York: Princeton Architectural Press, 2008), pp. 12-13.

40. If one accepts that Rossi formulated one aspect of critical practice available at the time, another, according to Aureli, is a 'critique of ideology of the capitalist city, as this ideology manifested itself in the postwar recuperation of the Modern Movement and a new wave of technological avant-gardism in the 1960s', discussed by Manfredo Tafuri and Branzi. See Aureli, *The Project of Autonomy,* p. 55.

41. Hal Foster, 'Antinomies in Art History', in *Design and Crime*, pp. 83-103

42. See Kojin Karatani, *Transcritique: on Kant and Marx* (Cambridge, Mass.: MIT Press, 2003).

43. Slavoj Žižek, *The Parallax View* (Cambridge, Mass.: MIT Press, 2006).

44. Steven Holl, *Parallax* (New York, Princeton Architectural Press, 2000), p. 38.

45. Ibid., p. 17.

46. Hartoonian, *Ontology of Construction*.

47. T. J. Clark, *The Sight of Death* (New Haven: Yale University Press, 2006), p. 185.

48. Kenneth Frampton, 'Excerpts from a Fragmentary Polemic', *Art Forum* (September 1981), p. 52.

49. The following discussion profits from this author's work on the tectonic, see: Hartoonian, *Ontology of Construction*.

50. On the difference between theatricality and theatricalisation, see: Gevork Hartoonian, *Crisis of the Object; the architecture of theatricality* (London: Routledge, 2006).

51. Manfredo Tafuri, *Interpreting the Renaissance*, trans. Daniel Sherer (New Haven, Conn.: Yale University Press, 2006), p. 51.

52. Vidler, *Histories of the Immediate Past*, p. 123.

53. Jean-Louis Cohen and G. Martin (eds.), *Liquid Stone* (Basel: Birkhauser-Publishers for Architecture, 2006), p. 7.

54. Ibid., p. 12.

55. On this subject see the last chapter in: Hartoonian, *Ontology of Construction*.

56. Robin Evans, *The projective Cast* (Cambridge, Mass.: MIT Press, 1995), p. 180.

57. Ibid., pp. 220-39.

58. Ibid., p. 206.

59. Kenneth Frampton, 'A Kufic Suprematist: The world culture of Zaha Hadid', *AA Files*, 6, (May 1984), p. 101.

60. Harry Francis Mallgrave and Christina Contandriopoulos (eds.), *Architectural Theory Volume II. An Anthology from 1871-2005* (Malden, Mass.: Blackwell Publishing, 2008), pp. 535-36.

61. See the last chapter in: Hartoonian, *Crisis of the Object.*

62. Rodolfo Machado and Rodolphe el-Khoury, *Monolithic Architecture* (Munich: Prestel-Verlag, 1995), p. 67.

63. Cohen and Martin (eds.), *Liquid Stone*, p. 27.

64. See Isabelle Hayman, *Marcel Breuer Architect* (New York: Harry N. Abrams Inc., 2001), p. 155.

65. Machado and el-Khoury, *Monolithic Architecture*, p. 13.

66. Evans, *The projective Cast*, p. 212.

67. See this author's discussion of the return of the two themes of 'organic' and 'surface' in the last chapter of: Hartoonian, *The Crisis of the Object*.

Biography

Dr. Gevork Hartoonian is Associate Professor in architectural history and theory at the University of Canberra, Australia. He has taught in many schools of architecture in the United States, including Columbia University (New York City). He is the author of numerous books and essays, including *Crisis of the Object: the Architecture of Theatricality* (Routledge, 2006) and *Ontology of Construction* (Cambridge University Press, 1994). He is also the editor of *Walter Benjamin and Architecture* (Routledge, forthcoming). Most recently, he has published 'Mies: The Window Framed', in *Fabrications* (December 2008). He has served as a member of the editorial group of *Architectural Theory Review* (Routledge) since 2001, and is guest editor of a special issue of this journal focusing on the subject of architectural drawing (vol. 14, no. 3, 2009). A Korean edition of his *Ontology of Construction* is scheduled for publication in 2010.