

Elie Haddad

Preface

After the eventful decades of production of 'critical' discourses in architectural theory, new paradigms are emerging which are affecting the status of 'theory' inside the discourse of architecture as well as the practice of architecture as a discipline.

In contrast to the debates of the 1970s and 80's, some would argue that we are moving towards a 'post-critical' phase in architecture, where criticism is suspended in the face of major technical and economic challenges. This in turn is affecting and challenging the pedagogical mission of architecture as a discipline of intellectual inquiry that addresses concrete problems of life. While certain aspects of the older critical discourses are still valid to address the emerging paradigms, others are becoming inadequate to the new reality.

What should be the goals of theory and pedagogy, and the role of praxis under this new condition? How should we address the conditions imposed by reality within these various discourses? Are the traditional ideological and aesthetic critiques of the "object" and the theoretical formulations of the "City" still valid tools of analysis for this new condition?

This was the basic platform based on which a number of participants presented their papers to this third architectural symposium held at the Lebanese American University in Beirut.

There may have been an original bias on our part, as organizers, by inviting two keynote speakers, both critical in their own ways of the new hyper-reality that has affected the contemporary condition of architecture: **Hilde Heynen** on the one hand, who in her *Architecture and Modernity*, analyzed the intricacies of modern architecture, following the parcoures of the critical thinkers of the Frankfurt School [Benjamin, Adorno, Horkheimer and others] all the way to Tafuri and Koolhaas in our own times. In this work, Heynen clearly took a stand, in the end, for an architecture of social relevance, which does not divorce itself from its mimetic function:

One thus should accept it as a given that architecture- in its most broadly conceived sense- forms the framework of life. But in accepting this as a starting point, one should also recognize that there can be something more. [...] Like art and literature, architecture is capable of suspending the continuity of the normal and generating a moment of intensity that subverts what is self-evident.

Neil Leach, in his own way, radically attacked the image-culture that has become pervasive in much of our contemporary cultural representations in *The Anaesthetics of Architecture*, pointing to this “anaesthetic” capacity of images, from the rendering of the war on Iraq as a fireworks spectacle on CNN, to the fetishization of technology in much of contemporary architectural works:

The world has become aestheticized and anaestheticized, emptied of all content. And nowhere is this condition more marked, it would seem, than in the glossy pages of our architectural magazines and the fashion-conscious domains of our schools of architecture.

In the concluding presentation of this symposium, Leach took the iconic sculpture of Bernini, *The Ecstasy of St Teresa*, as a point of departure for a discussion of “ecstasy”, and a deeper probe into the relevance of aesthetic and psychoanalytic interpretations of certain phenomena that fall between the mystical, the erotic, and the hysteric. These investigations hint to a possible understanding, or recognition, of the architectural in terms of such symbolic attachments.

The majority of papers in this symposium addressed the critical relation between theory and practice, while some focused theoretically on specific themes that constitute, for the authors, important markers along this path traced by modern architecture.

In this respect, the essay by **Jay Randle**, who has taught in schools around the world, bears a great significance, not just for those of us who have been touched by his deep and authentic perception of the world and by his idiosyncratic reading of architecture as one manifestation among many, of the human activity within a natural realm of things. His comprehensive essay is a timely call for order, drawing on four decades of experience in both education and practice, and on the lessons of the past. **Antoine Romanos**, in his turn, addressed the opposition between theory and practice, through a historical survey of the major benchmarks in the evolution of this opposition, which in the end, resulted in much of the degradation of the built environment all around the world. Still, Romanos holds some hope that the re-establishment of a rapport between professionals and academics could reform the current condition. On the other hand, **Charles Meyer's** reflections invite us to a phenomenological re-cognition of architecture as both lived experience and

atmosphere. The references he often makes to photography, indicate his persistence in developing a feeling for architecture through the act of looking; of a deep, penetrating, but sympathetic act of looking coupled with an investigative analysis of the matter out of which reality, and architecture, are inherently formed.

Katrin Fagerstrom explored in her presentation the significance of “color” in architecture, and the appearance and disappearance of this notion in the practice and discourse of architecture in the Twentieth century. From the vernacular traditions in Sweden to the developments of Modern Architecture, Fagerstrom examined the changing perceptions of color in its dual manifestations as inherent to the material, or as applied paint.

Christos Hadjichristos addressed the epistemological foundations of architecture and questioned its role as a discipline, employing the scientific models of Popper, Kuhn, Lakatos and others to elucidate the particularities of our profession, drawing informative parallels and contrasts between this profession and the other sciences. Drawing on his experience of teaching in the Arab world, **Kevin Mitchell** chose to examine the question of architectural education, providing a set of practical tools for a pedagogy that does not turn its back on the material and cultural baggage that a student comes with, but neither holds back and retracts into subjectivity, thus countering the prevailing trends of imitating imported models or surrendering to kitsch. One paper addressed the relationship between architecture and art, as seen through the work of a major artist of this century, Antoni Tapies. **Beshir Kenzari** interpreted the work of Tapies through an architectonic lens, probing deeply into his “walls” and their connotations of violence, concreteness, of a return to the primeval elements of art, which, as Kenzari alluded, hold important lessons for architecture as well in a time that witnesses a return to formalism.

Hani Asfour, George Katodrytis and Iradj Moeini addressed the emerging paradigms in architectural education and practice, namely, the important consequences of the information technology on the discipline. While **George Katodrytis** stressed that the new developments in digital technology have irreversibly altered the making and perception of architecture, arguing that architecture can no longer limit itself to “craftsmanship” or “aesthetics”, enthusiastically espousing the new possibilities, **Iradj Moeini's** essay took a more historical and analytical approach, and traced the development

of information-age architecture, in its multiple variations, from the platforms of Modernism; to the developments that go beyond the original framework. **Hani Asfour**, on the other hand, proposed a radical revision of the way architects have used and interacted with technology, especially as we witness the great transformations provoked by the new Information Age. For Asfour, such paradigmatic shifts should not provoke an abandonment of critical discourse, rather the opposite, the re-engagement of this very discourse in a more productive, disseminative and resistant practice. The warnings he gives are worth heeding, the new technologies should not be emulated or mimicked, and then translated into forms, as the assimilation of such new technologies goes beyond the question of form and style.

Three other participants addressed the crisis of the architectural object and the city, especially as seen in the developing world. While the question of "tradition" is a loaded question, especially where it is confronted by the drive towards modernity, the relevance of the question can not be overlooked, especially where the struggle towards modernity continues in the face of a reactionary return to fundamentalist models that seek to abolish the achievements of secularism by proposing a "unitary" model purified of difference and diversity.

Karima Benachenhou, in her presentation, addressed the problems of applying architectural education in practice, building on her experience as one of the architects involved in the reconstruction of Ain Temouchent after the earthquake that demolished this town in the West of Algeria. Benachenhou testified to the difficulty of applying a postmodern language of architecture that would answer to the inhabitants' Islamic culture, although for her, this approach carries more legitimacy than the blind application of city planning dogmas of the 1950's. In a similar vein, **Tarek Abdelsalam** reviewed the role of the Agha Khan Award for Architecture, and assessed its importance in reviving an interest in Islamic architecture and a concern for local traditions of building, which have been largely overlooked by contemporary practice in the Islamic world. Building upon an investigation of different "city center" models, and using Bombay as an example of a city growing at an exponential rate with its population reaching over 10 millions, **Deb Upadhyaya** argued for the development of a new urban model that can take into account these dynamics and deal more effectively with the challenges that such growth imposes on resources, land and infrastructure.

Finally, the session on *Architecture and its Other*, brought together three veteran theoreticians who have had each a long record of dissent from the normative readings of architecture. In his essay that weaves the filmic imaginary with the current political manipulations of the post 9/11 phase, building upon his interpretations of the Lacanian notion of hysteria, **Donald Kunze** asserted the role of discourse in architecture as a *symptomatic* discourse, resistant to the simplifications of the formalist currents. **Nadir Lahiji**, for his part, summarized the current debates on the state of architecture, also starting with the events of 9/11, and the role that the competition for the ground-zero site in New York City has taken in re-activating a discourse that can no longer ignore architecture's place in the political. As a historical model, Lahiji reflected again on the notion that Reyner Banham articulated as "Une Architecture Autre", and the promises it held for an architecture that doesn't get stuck in an impasse between pure aesthetics and functional requirements. **Libero Andreotti**, on the other hand, discussed the counter-movement of the Situationists in the 1960's suggesting that lessons could still be learned from their activist and socially engaged practice, and demonstrating their influence, although at times discreet, on contemporary artistic and architectural forms.

While the symposium theme raised questions that were too ambitious to be settled within the scope of any single event, yet this event proved fruitful in bringing together these different positions that address, *theoretically*, the theoretical dimension in architecture, as well as its interrelation with *praxis*, in a discipline that must in the end translate into practice. A discipline which proves, against skepticism and its occasional downfalls, its ability to re-assert its role as a fundamental activity in the humanist edifice that remains our best hope for a world where we attempt to live in dignity and respect for others.

Acknowledgements

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Last but not least, I want to thank the keynote speakers and the paper presenters who came from near and far to participate in this event.

Hilde Heynen

Utopia, Critique and Contemporary Discourse

One of the aims of this conference is to discuss the status of architectural theory in its relation to practice. Let me start therefore by pointing out my opinion on this matter. In order to be as encompassing as possible, I work with a very broad definition of 'architectural theory': for me it comprises all kinds of discourses that in one way or another deal with the question 'what is architecture?' Which means that reflections by architects on the scope and value of their own work belong to it, alongside with more distanced discourses which seek to establish connections with other disciplines, such as philosophy, art theory, psychoanalysis or sociology. It is absolutely necessary for architectural theory to interact with architectural history, since the question 'what is architecture?' cannot be answered if historical conditions are not taken into account. The relation between architectural theory and architectural practice, on the other hand, seems to me to be indirect: architectural theory might have a relation to architectural practice that can be labelled as 'framing', 'questioning', 'criticising', 'challenging' or 'positioning'. I do not believe, however, that architectural theory can in one way or another 'guide' or 'orient' practice. That would boil down to a version of operative criticism that Tafuri already was very critical of.¹

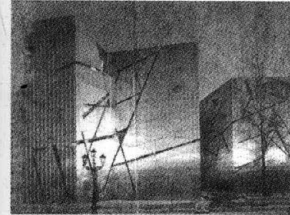
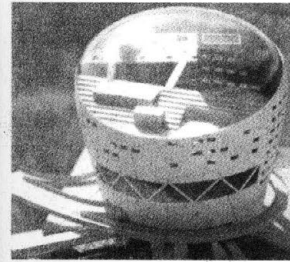
Critical and post-critical discourses

One of the major issues in recent theoretical discussions has to do with the issue of criticality. The assumption that architectural theory should build upon critical theory and be critical itself has recently been challenged, especially in the United States. Now I am one of those who continue to believe in the validity of the critical project. Let me start therefore with pointing out what I understand under the term 'critical theory', in order to develop from there a counter-critique against critical theory's critics.

According to Max Horkheimer, critical theory is that branch of humanities that is motivated by the tension between rationality and reality.² Critical theory does not wish to accept social reality as it is, but always questions its legitimation

and justification: is it absolutely necessary that social reality is as it is, or are there possibilities to imagine – and realize – a more humane, a more just, a more emancipated society? Critical theory as initially embodied by the Frankfurt School (Horkheimer, Adorno, Marcuse) discussed all kinds of things with these questions as leading motivations. This critical tradition has been taken up by later developments, among them poststructuralism, feminism and postcolonial theories.³ The most important critical contribution of poststructuralism has to do with its striving to criticize all forms of essentialism: according to poststructuralist thought, one should be wary of all parties who claim to possess truth because they know the 'essence' of a certain matter – be it beauty, or justice, or violence, or architecture. Deconstructive thinking, for example, has been critical of all notions inherited from tradition regarding the 'nature' of architecture. Feminist theories have used this approach to question gender as social and cultural construction, and to criticize the oppression that is effectuated in the name of the 'natural qualities' of either men or women. Postcolonial theories have criticized colonialist and imperialist discourses, showing us how they embody a series of unacceptable assumptions about the superiority of European culture, justified by claims about progress and moral values.

The processing of these theoretical contributions into architectural theory has led to the expectation that the most worthwhile architecture should be critical: architectural works should relate to their social condition in a critical manner. My book *Architecture and Modernity. A Critique* can be read as such: it builds up an argument, relying on the critical theories of Walter Benjamin and Theodor Adorno, that leads to the claim that architectural works, through their mimetic relation with program, site, materials, historical and social context, can critically reflect upon their social condition.⁴ This critical reflection is possible because architecture has an autonomous moment – it is not entirely determined by heterogeneous forces such as technical, functional or economic requirements. The recognition of an autonomous moment in architecture is indeed a necessary but by no means sufficient requirement for a critical architecture. In every built work of architecture social interests are also at stake. A critical treatment of social reality therefore inevitably operates at various levels simultaneously and cannot just be reduced to the packaging aspects of a building. Questions such as 'who is building and for whom?', 'what is its impact on the public domain?' or



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who will profit from this development?' are and will continue to be relevant in this connection. These questions too can be mimetically incorporated in the design however, giving more weight to its critical aspirations.

In the book I developed these arguments through a critical discussion of two projects: the Seacenter for Zeebrugge by OMA / Rem Koolhaas and the Jewish Museum in Berlin by Daniel Libeskind. [Fig. 1, 2] I linked the idea of criticality with Lyotard's urge to 're-write modernity'. Thus I argued that the Jewish Museum in Berlin is an example of the way in which architecture, 'after Auschwitz', can rewrite the meaning of modernity. 'Auschwitz' stands for the ultimate uninhabitability of modernity. The impossibility of dwelling, the bankruptcy of modernity's promise of a *new Heimat* is given architectural form in the cold and gloomy depths of Libeskind's voids. Out of the intertwining of the two lines and the play of space, light and texture, something else also appears: what is involved here is not only despair and mourning; it is also hope for the future which can only take shape through a lucid grasp of the hopelessness of the present. It is here that Libeskind's critical reworking of the legacy of the Enlightenment lies. Rewriting modernity means a face-to-face confrontation with its failures and perversities; inherent in it is an anamnesis of the past as the precondition for taking any step into the future.

Koolhaas is less urgently concerned with reworking the past. Even so the mimetic strategy of the Sea Terminal provides us with a work that in its 'inevitable transformation into a cultural commodity' witnesses to 'the impossibility of the work', as Lyotard would have it. This project refuses to choose between a banal commercial logic and the aspirations of art. Both are at issue here, both are equally valid. They are inseparably entwined, without being totally fused. It is precisely in the chasm between them that the 'margin' exists that forms the tension of the design. In the intertwining of complicity with the system and opposition to the levelling tendencies inherent in it, the project of rewriting modernity is given form.

The basic idea that architecture can and should be critical, however, has recently come under attack. Robert Somol and Sarah Whiting, for example, state that the days of 'critical architecture' are over, and that the stage should be given to 'projective architecture'.⁵ They understand critical architecture

as the kind of architecture advocated by people such as Michael Hays and Peter Eisenman, who are in a way relying upon the intellectual legacy of Colin Rowe and Manfredo Tafuri. Their 'critical architecture' then is indexical, dialectical, based upon ideas of 'representation' and 'autonomy'. The 'projective architecture', on the other hand, would rather be 'diagrammatic', based upon 'atmospheric interaction', aimed at 'cool performance' and concerned about 'multiple engagements', recognizing a diversity of economies, ecologies and social groups. In their article Somol and Whiting do not mention specific names, but it is clear that their description fits the practices of young and coming architects, such as the Dutch office MVRDV (with their 'Datascap' techniques) or the New York based practice Architectonics (with their project for a 'Flex-City').

The tendency to declare architecture to be in a 'post-critical' stage is, however, far less visible in Europe. On the contrary, even. In April 2003, for instance, a colloquium was held in Brussels, organized by Nethca and entitled 'Critical Tools'. During this colloquium, almost all the speakers coming from France, Belgium, the United Kingdom, and elsewhere, agreed that the critical project had to be paramount in architecture (although they rather disagreed about the exact meaning and implications of this shared assumption). Only one of the keynote speakers, Alejandro Zaera-Polo, started his lecture by referring to the American discussion and the supposed fact of a 'post-critical' condition for architecture.

Another counter-example can be found in a recent publication by NAI Publishers: *New Commitment*.⁶ This publication is announced on their website like this:

NAi Publishers has noted an increasing level of discussion in architecture and urban planning, in the visual arts, photography and design about social issues. Architects, artists and designers are on a quest for legitimacy for their work and for socially relevant activities. Professional journals are calling for reflection and reconsideration of how one carries out one's craft. In other words, a debate is clearly underway about a new form of engagement by the design and visual disciplines toward the current problems of society.

NAI thus clearly observes a renewed interest in architecture's critical potential.

One should question anyhow the relative merit of this new enthusiasm. There is of course a tendency to search for ever new themes and perspectives because they are needed to keep the production of architectural publications going. It is not so strange that as a result of that tendency a theme reappears that seems to have been out of sight for long enough for it to be presented as something fresh and new today. Adorno has been warning for this, stating that

The new, sought for its own sake, a kind of laboratory product, petrified into a conceptual scheme, becomes in its sudden apparition a compulsive return of the old, ...⁷

At the same time, however, he also recognized the critical potential of the new:

The cult of the new, and thus the idea of modernity, is a rebellion against the fact that there is no longer anything new⁸ and the new is the secret figure of all those unborn.⁹

Keeping this in mind, I think we should have another look at the discourse pleading for a 'post-critical' stage where we need a 'projective' architecture. In looking closely at the arguments developed by Somol and Whiting, for example, we see that they do not give up on the social dimension of architecture, that they do indeed stress architecture's relation to its social context as very important. Their strategy can be summed up in fact as a mis-representation of the whole idea of 'critical architecture', by focusing on some of its marginal aspects and ignoring others, followed by an advocacy for a new kind of architecture – 'projective architecture' – that in many ways is simply a new disguise for the old idea of 'critical architecture'. One also recognizes a typical motive in the whole strategy in that this is the outburst of a younger generation of critics who need to murder their fathers (Hays and Eisenman) in order to establish a legitimate position for themselves.

Given all this, what we need now, I think, is a re-assessment of modernism. Postmodernism and later "–isms" have never succeeded in attaining a similar validity in social and critical terms as modernism did. That is why, in thinking about criticality, we should return to modernism and then ask ourselves where we stand today.

A re-assessment of modernism

Two years ago I edited, with Hubert-Jan Henket, the volume

*Back from Utopia. The Challenge of the Modern Movement.*¹⁰ It was our intention to draw up a certain balance of the Modern Movement and to assess what is its legacy for today. One of the major issues that came out of that effort was the question of colonialism. Indeed, looking back from a perspective of 80 years hence, there is no denying that there exists a direct link between the universalist and progressive ideals of the Modern Movement on the hand and the colonial discourse which legitimated colonialism as a political practice on the other.

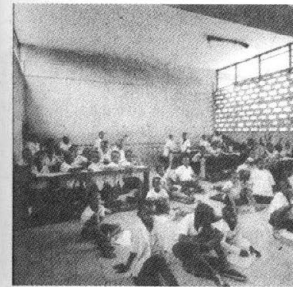
When modernity is understood programmatically, as a project of progress and emancipation, it finds an outspoken manifestation in colonialism. The setting up of a colony often links the occupation of new territory with the desire to leave behind old habits and limitations in order to establish another, a new, a better order. The colony was seen as the locus of a new world, where the old world would be rejuvenated through its confrontation with purity and virginity. However, this idea of a new and better order was inevitably interwoven with a striving for conquest and domination. For the new land was seldom pure or unclaimed, and the establishment of a colony thus meant violation and oppression of another culture. This internal contradiction is by no means an unhappy coincidence brought about by historical circumstances. It is rather inherent to colonialism.

In postcolonial theories the interconnections between the Enlightenment project of modernity and the imperialist practice of colonialism have been carefully disentangled. Following the lead of Edward Said's *Orientalism*¹¹, it is argued that colonial discourse was intrinsic to European self-understanding: it is through their conquest and their knowledge of foreign peoples and territories (two experiences which usually were intimately linked), that Europeans could position themselves as modern, as civilized, as superior, as developed and progressive vis-à-vis local populations that were none of that.¹² Orientalism, according to Said, refers to that body of knowledge and practices that study and describe the Orient as the 'other' of the Occident, roughly equating it with the mysterious, the exotic, the excessive, the irrational, the alien. The other, the non-European, was thus represented as the negation of everything that Europe imagined or desired itself to be. This crucial role of the colonized in the self-understanding of Western culture is something that most accounts of modernity and modernism did not acknowledge. It is conveniently ignored in the

conventional historiography of the Modern Movement. Only recently, in the work of historians such as Gwendolyn Wright or Zeynep Celik have these topics come to the fore.¹³

Indeed there are doubtlessly orientalist traits that can be recognized as for example in the discourse of Le Corbusier. His *Voyage d'Orient*, in which he acquainted himself with the vernacular architectures of Eastern Europe and Turkey, is a case in point. Although his experience of the spatial and constructional qualities of these architectures clearly contributed to the development of his own architectural vocabulary, they are not acknowledged as such, since they do not reappear in his modernist polemic of the 1920s which rather referred to ocean liners, grain elevators or airplanes as basic sources.¹⁴ Another case in point is Le Corbusier's fascination with the city of Algiers and with Algerian women, which, according to Zeynep Celik, places him in the long line of French colonialist endeavours to conquer the feminine heart of the foreign culture.¹⁵ In such instances, the complicity of modern architecture's discourse with the colonial enterprise to establish Western hegemony over the world seems to be revealed.

There is however more to it. Whereas it cannot be denied that modern architecture was often instrumental in the formation of colonialist domination (reference can be made to the French architecture in Algeria and Morocco, or to the Belgian one in Congo, or to the Dutch one in Indonesia), the identification of modern architecture with the colonizers was not a given that was established once and for all. The reception of the modernist architecture in Kinshasha was fundamentally ambivalent. As clearly recognizable points of intervention by the colonizers, modernist buildings were the prime targets of attack for the rebellions that sought to overthrow the colonial rule. After independence was established, however, this architecture has been willy-nilly appropriated as basic infrastructure that cannot be missed in order for the city to function. [Fig. 3] As such it remains a reminiscence of a dream that is not given up entirely: the dream of emancipation and liberation for all.



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Another major issue in re-assessing modernism has to do with the sexism that was built-in as well. 'Modernism', in its broadest sense, can be understood as the generic term for those theoretical and artistic ideas about modernity that embrace the experience of the new and that aim to foster the evolution towards a brighter future. Typically, however,

these movements were part of high culture, and tended to be critical of mass culture and the homogenizing effects of modernization. Modernist discourses have thus often hailed the struggle for authenticity and integrity, and have denigrated the needs for comfort and consolation that were seen as characteristic for a petit-bourgeois mentality. This polarization of values, that underscored the distinction between art and kitsch, bears gendered overtones, as is pointed out by Andreas Huyssen:

It is indeed striking to observe how the political, psychological and aesthetic discourse around the turn of the century consistently and obsessively genders mass culture and the masses as feminine, while high culture, whether traditional or modern, clearly remains the privileged realm of male activities.¹⁶

In many ways the discourses and practices of modernism favoured masculine qualities, and were embodied by male representatives. This is for instance confirmed by Richard McCormick who comments that in the New Objectivity

“the gender of the subject who seemingly produced it, the subject it glorified and to whom it was addressed, was obviously, explicitly, indeed defensively masculine.”¹⁷

Not surprisingly then, the great modernist artists, authors and architects are predominantly male, and the canons in the different fields comprise only a limited number of women – even if the last decades saw important contributions by feminist scholars who attempted to re-inscribe women artists, authors and architects into the histories of the visual arts, literature and architecture.¹⁸ Of course the dominating role of men in these fields was precipitated by the social and cultural conditions of the times, which encouraged men to follow their dreams and warned women not to stray too far from accepted patterns of life. We should not underestimate, however, to which extent the legitimating discourses of modernism reinforced the assumed superiority of masculine qualities over feminine features, and, consequently, facilitated the access of men into the roles of heroes and leaders, to the detriment of their female counterparts.

In the architectural discourse, for example, it was quite common around the turn of the century to see 19th century eclecticism being condemned for its ‘effeminate’ traits. Architects such as Hermann Muthesius, Adolf Loos or Henry van de Velde advocated the virtues of simplicity, authenticity

and integrity, contrasting these sober and ‘virile’ qualities with the sentimentality, ornamentation and ostentatious pretensions associated with eclecticism.¹⁹ Hendrik Petrus Berlage called for a modern architecture which would embody the sublime – a form of beauty, he explains, which differs from the more common quality of pleasing the eye, just like male beauty differs from female beauty.²⁰ The sublime is based upon spiritual strivings, asceticism and a totally free consciousness. These higher ideals, he states, should lead architecture to a new style based upon constructive principles, necessity and sobriety. A rather late variant of this gendered outlook on modern architecture can be found in Ayn Rand’s 1947 *Fountainhead*, which depicts the male architect-hero as uniquely possessing the qualities of integrity, virility and authenticity which modern architecture requires.²¹

If colonialism and sexism were inherent to modernism – the most outspoken critical project of architecture of the 20th century – we should wonder about their impact on today’s architectural culture. Can we state that we did overcome these issues? Is present-day architectural culture blameless in these respects? I do not think so.

It is easy to find evidence for this. Take for instance Rem Koolhaas’ writings on Lagos.²² He advocates Lagos as emblematic for the future of the city, as a kind of self-organizing entity that proves that the rigid logic of architects and planners can be overcome by the reality of urban life itself, which succeeds in reaching a very high level of performance, regardless of the rules and expectations of conventional planning schemes. Now, interesting and intriguing as his observations may be, they nevertheless remain observations by an outsider, a rich, white fellow who lands – out of the blue – in Lagos, spends there a couple of weeks venturing through the city in well protected cars and with minimal contact with the ground (and with the people), and declares all well and fascinating. [Fig. 4] With Yorgos Simeoforidis, we should be willing to wonder about the ethical questions this attitude evokes:

What can we say to the people of Lagos who do not inhabit, who do not commute, and who do not possess our Western comforts? That their Megalopolis is beautiful because everything is drifting? That they have no problems because Lagos is a city that works? That this is how all the world’s big cities will be in the near future? That there is no need to do anything?²³



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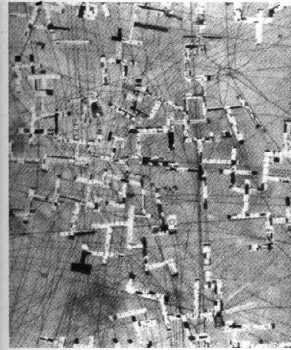
As to the question of sexism, the continuing discrimination against women in the profession is well-documented. Although women make up a very large part of the student population, they nevertheless remain an underpaid and underrepresented minority in the profession itself. [Fig. 5] Women architects do not often rise to stardom, they usually remain in the background of the office, helping out and performing a large part of the less visible jobs. When the Berlage Institute recently asked a large number of notorious architects and critics to have their say about the contemporary situation of architecture, its questions were answered by 95 men and 17 women – a fair depiction, one might assume, of the present gender relations in the architectural field.²⁴



Now raising the critical issues of colonialism and sexism for me point forward to the underlying issue of utopia. Indeed, criticizing modernism and later tendencies for their failure to counter colonialism and sexism, can only be done when one assumes that another condition is possible – when one believes, that is, that a kind of utopian desire to realize a social reality without colonial or gender discrimination is not intrinsically false or ultimately unattainable.

The question of utopia

In order to start assessing the complicated relationship between utopia and critique in the field of architecture, I would like to start with a reference to Rem Koolhaas's 'Story of the Pool'.²⁵ [Fig. 6] According to this parable the floating swimming pool was designed by a Moscow architectural student one day in 1923. Struck by the strength of the idea, his fellow students decided to build it. Shortly after its construction, they discovered that by swimming in unison, in regular synchronized laps from one end of the pool to the other, the pool would start to move very slowly in the opposite direction. When communism turned into Stalinism, the pool's architects planned to make use of this mechanism in order to force their way to freedom. By swimming in the general direction of the country they left, they slowly guided their raft across the Atlantic. Their logical destiny was New York, which they reached after four decades. Their arrival was disappointing, to say the least, even if the New York architects decided to grant their colleagues a collective medal. The Russian architects therefore decided to continue their journey, only to collapse in front of the Welfare Palace Hotel.



In its biting irony this story recounts the history of constructivism (and modern architecture) as Koolhaas saw it at the time (1976): emerging as an incredibly energetic, dynamic formal language that was completely bound up with the socialist revolution and its dreams of equality and emancipation, it lost its energy but not its dreams (nor its single-mindedness) in the years between the thirties and the seventies. Re-emerging in a capitalist society which had no use for the dreams and had sold out the forms as pacifiers of the welfare state, modern architecture could only face its collapse in confrontation with its sophisticated, but decadent successors.

Koolhaas's story has to be seen as embedded in a period of critical coming to terms with the fate of modernism. It belongs to a decade (the seventies) that took its leave of the previous one (the sixties) in which utopias of all kind had flowered abundantly. The sixties indeed saw a multitude of visionary experiments in architecture that were praised as offering critical alternatives to the present. A very typical and well-elaborated example was Constant's New Babylon project. [Fig. 7] This comprised a utopian scheme for a new mode of dwelling and a new society that took the form of a vast series of models, charts, sketches and paintings. New Babylon offered a consistent critique of social modernity - it was not without reason that Constant called his project an 'antithesis of the society of lies'. New Babylon is a simulation of a situation of total liberation - of an abolition of all norms, conventions, traditions and habits. In New Babylon imagination is in power and *homo ludens* is sovereign. At the same time the project testifies to the paradoxes and contradictions inherent in visions of this kind. In New Babylon therefore the anti-utopian character of utopia comes to the surface.

New Babylon is a visual version of the dream of ultimate transparency that Walter Benjamin detected in the avant-garde of the 20s. It presents an image of a social form in which the desires of the individual and the requirements of the community are inseparably entwined. As Constant describes it, it is a society where there is no longer any necessity for secrecy and possessions; it is an absolute collectivity in which the general interest coincides automatically with the sum of individual interests. New Babylon, it would seem, is a society without power relations. A utopia like this, however, is full of internal contradictions, which surface involuntarily in Constant's drawings and paintings. It is indeed impossible to imagine a society existing that is so harmonious

and free of stress without its individual members being subtly coerced to adapt and conform - an oppression that implies the opposite of genuine freedom. Dynamism, permanent change and flexibility are in fact ineluctably in conflict with qualities such as peace, repose and harmony. The latter is precisely what Constant's imagery suggests. The drawings and paintings indeed seem to convey a much more in depth understanding of the human condition than the texts. The images are hardly open to being interpreted as foreshadowing an ideal future; rather they appear as a multilayered commentary on the impossibility of giving utopia a concrete form.

A similar ambivalence – and even a switch to dystopia – can be observed in the first OMA-project: *Exodus* or the Voluntary Prisoners of Architecture. [Fig. 8] What the project attempted, according to Koolhaas in an interview in 1988, was a critique of the “innocence” and the unfettered optimism characterizing the visionary architecture of 1960s. OMA, with its project, wanted-

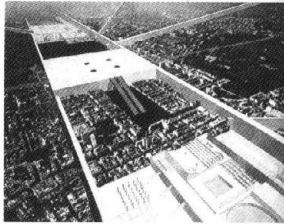
to emphasize that the power of architecture is more ambiguous and dangerous. (...) *Exodus* proposed to erase a section of central London to establish there a zone of highly metropolitan life – inspired by Baudelaire – and to protect this zone with walls from the old city, creating maximum diversity and contrast. The people of London could choose: those who wanted to be admitted to this zone of hyper-intensity became ‘The Voluntary Prisoners of Architecture’.²⁶

According to the Prologue of *Exodus*, the project aims to realize the impact of the Berlin wall by reversal:

It is possible to imagine a mirror image of this terrifying architecture, a force as intense as devastating but used instead in the service of positive intentions.

The inhabitants of this architecture, “those strong enough to love it,” would experience a paradoxical liberation: “An ecstatic freedom in their architectural confines.” At the same time, however, both Koolhaas and Zenghelis insisted on the brutal and highly ambiguous fact that all architecture necessarily functions by way of separation and exclusion, which is what the *Exodus* collages express in a – frivolously and, at the same time, poignantly – trenchant manner.

Rem Koolhaas is fully aware of this ambivalence, as is evident from the interview I recently conducted with him:



8

HH: What would you call *Exodus* then – a manifesto?

RK: Yes, it was a sort manifesto, too, more than that, however; it was a kind of short-circuit of good and bad intentions, of end and means... that the negative really is part of it, of the means.

HH: The negative meaning what?

RK: Exclusion, keeping at a distance, compressing, ...

Nevertheless this dystopian project also relies upon some kind of utopian desire, since “It requires a fundamental belief in cities as the incubators of social desires, the synthetic materializations of all dreams.” The epilogue makes it clear that *Exodus* is a radical defense of the metropolitan idea and lifestyle:

If people were allowed to become acquainted with Architecture, they would decide to re-appropriate the physical and ideological decay of our Urban Societies and to rehabilitate their premises with the metropolitan idea and lifestyle.²⁷

For me it is indeed crucial that the role of utopian thinking be recognized in architecture. As I argued in *Back from Utopia*, we should be aware of this as the most important aspect of the legacy of the Modern Movement: its capacity to criticize the status quo and its courage to imagine a better world, and to start building it. Modern architects were admittedly often naïve and over-simplistic in their architectural determinism. In as far, however, that their utopian impulse was based upon a critical attitude and upon a genuine intention to change the world, we should not denounce this dimension but rather seek to re-evaluate it.

And that is indeed what, I am glad to say, I see happening in some recent events. An exhibition on the work of Zaha Hadid and Patrick Schumacher, for example, was entitled *Latent Utopias*, its publicity stating that “Every epoch needs its utopias. A society that does not speculate about its future development is curiously disquieting, even monstrous.” Also the way in which Okwui Enwezor organized *Documenta 11* betrayed a certain utopian desire. His concept was based on the idea of a critical methodology of interdisciplinarity that is appropriate to a global public sphere in which critical models and ideas of artists and intellectuals can be presented and discussed. One of the publications resulting from this effort was *Under Siege*. Four African cities, which explored how

African cities are becoming the exemplars for the emergence of new urban formations that are of great interest to many researchers working in the social sciences. It is in the polymorphous and apparently chaotic logic of the postcolonial city that we may find the signs and new codes of expression of new urban identities in formation. Under Siege: Four African Cities underlines a central paradox that seems to rule the view of African cities, namely their inherent dynamism and obsolescence, and engages different kinds of understanding of subjectivity and the cultural, political, social sphere of present day African urban conditions.²⁸

Again, we should refer to the late Yorgos Simeoforides' critical comments upon such an undertaking. He asked absolutely pertinent questions:

What about the homeless castaways of globalization? The refugees of dismantled socialism? Cumbersome infrastructure? The reuse of abandoned industrialization? Our degraded and forsaken peripheries? Public spaces, swallowed up by privatized video monitors?²⁹

These questions are absolutely crucial and topical. But they should not be seen as just inimical to a project such as Enwezor's – or Koolhaas' for that matter. Because Simeoforides' ultimate concern has to do with the transformative power of such projects:

My concern lies in the very idea of the venture as a transformation project (this is how I have come to see and interpret it over the years, irrespective of the size of the project). What do you think?³⁰

It is in this sense that I also see the whole discussion regarding 'projective architecture': rather than label it 'post-critical' I would stress its transformative potentials. If you read 'projective' as 'embodying a project', it indeed contains a critical and even a utopian dimension. Utopia today cannot be about a singular, well-defined and straightforward concept for a future society. Utopia inevitably rests upon paradoxes and contradictions, and we have to work through them in order to transform the present into a future that might be somewhat better.

This attempt coincides with what the editors of a recent book – Amy Bingaman, Lise Sanders and Rebecca Zorach – have termed 'embodied utopias'.³¹ For them this term refers to the act of imagining an alternative to the constrictive and discriminatory spaces of the present, and then enacting this

vision in all its materiality. It refers to social transformation in the making – the effort to work through the possibilities of fragmentary change and incomplete, unfinished projects that harbour the desire for a better world.

Indeed: if we no longer share the optimism of the early modernists who thought that *new* would automatically mean better, we still want to believe that, back from that naive utopia, we nevertheless have to continue the struggle that initiated the desire for it.

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Jay Randle

Theory, that which is called theory, and practice.

A couple of decades ago I came across a breezy piece of interpretive journalism. I've lost track of the source and as literary explanation it's too simplistic to merit much attention. Nevertheless, the image it evokes is useful to situate these remarks vis á vis the landscape of contemporary theory:

Novelists during the past 20 years have been so busy making up the truth that they have not had much time for fiction. The names of Norman Mailer and Truman Capote spring immediately to mind, along with their catchy formulations "nonfiction novel" and "the novel as history." Mailer, nurtured on emanations from Marx, Freud, Kierkegaard and Wilhelm Reich, can be an inspired explainer of the modern cloven spirit. Capote, the old Southern boy, steeped in regionalism and the oral tradition, is the storyteller; the Mother Goose of U.S. writing.

This is no mean designation, but since critics are explainers, not storytellers, Mailer is usually perceived as a heavyweight and Capote as a lightweight...

I teach. Studio mostly. Studios at the foundations of Architecture. My discursive, explanatory efforts must motivate and guide the uncertain practices of novices. My tutelage must enable action without circumscribing each student's unique potential to develop. I tell stories.

Story, projection, and parable work for us; they make everyday life possible; they are the root of human thought. Story as a mental activity is constant, yet unnoticed, and more important than any particular story.

The basic stories we know best are small stories of events in space: The wind blows clouds through the sky, a child throws a rock, a mother pours milk into a glass. These, and similar stories, constitute our world and they are completely absorbing — we cannot resist attending to them. Experience revolves around pouring the drink into the cup, watching the bird soar, the plane descend, tracking the small stick as the stream carries it away.

We understand experience in this way because we are built to distinguish objects and events and combine them in small spatial stories at human scale in ways that are useful for us. [Mark Turner]

So, whether you be explainer or storyteller, I intend today to tell you a few selected stories. Stories that have a trajectory and a target. Parables. Later you can decide about their weight.

A Delineation of Limits

Our session theme invites us to discuss the possibilities for an interface between theory and practice as these terms relate to architecture.

Interface implies a region of contact between two domains, a region necessarily more limited than either domain taken in its entirety. Thus we are not concerned with the whole of theory, nor yet with the whole of practice, but with that subset of each where their respective boundaries touch or interpenetrate each other, and across which some interchange or transaction may occur.

What is called theory runs a gamut. The varying senses the word carries in common, everyday usage attests to this. Some are honorific, some pejorative, some precise, and others vague.

To give an indication of the range, consider the following taken from a popular Oxford Dictionary of the English language:

theory (n) 1 Supposition or system of ideas explaining something, especially one based on general principles independent of the particular things to be explained.

2 Speculative (especially fanciful) view. 3 Abstract knowledge or speculative thought (all very well in theory). 4 Exposition of the principles of a subject. 5 Collection of propositions to illustrate the principles of a subject.

The varied services into which theory may be pressed covers a similarly broad range: speculation (mathematics, string theory in physics), explanation (music), direction or guidance (sociology, economics), accommodation (psychotherapy, for instance, or theology when viewed from a Marxist perspective — neither means to fix anything exactly, but their respective mythologies help one adjust to one's neuroses), exhortation (choose from your favorite ideologue's manifesto). Theory can extend, re-center, or renew a domain, help it recover from excess, break out of habit, entertain, or simply afford the theoretician a livelihood, though under those circumstances Montesquieu warned us it is difficult to think nobly. Theory can serve to justify past actions, or to amend and redirect subsequent undertakings. That which is called theory can also construct an imaginary realm of seductive vagueness into which one escapes to avoid confrontation with the concrete.

Possibilities of health

Consider a few phrases from Italo Calvino's undelivered Norton lectures, *Six Memos for the Next Millennium*, the one he titled "Exactitude":

It sometimes seems to me that a pestilence has struck the human race in its most distinctive faculty—that is, the use of words. It is a plague afflicting language, revealing itself as a loss of cognition and immediacy, an automatism that tends to level out all expression into the most generic, anonymous, and abstract formulas, to dilute meanings, to blunt the edge of expressiveness, extinguishing the spark that shoots out from the collision of words and new circumstances.

At this point, I don't wish to dwell on the possible sources of this epidemic, whether they are to be sought in politics, ideology, bureaucratic uniformity, the monotony of mass media, or the way the schools dispense the culture of the mediocre. What interests me are the possibilities of health.

What interests me, also, are the possibilities of health, as theory and architectural education and practice inform one another. Rather than map all possible regions, or modes, or motives, or readings of interface, I will delineate the character of certain kinds of ideas that can (i.e., that have the capacity to) establish an interface with practice, discuss several particular instances of theory and practice fruitfully interrelated, offer a brief explanation of why I think these instances are productive, and leave to others the consideration of other forms of theory and other interpretations of what interface might mean.

When a given content is taken up in our attention in a particular (i.e., in an analytical) way, we attend to it theoretically. When we formulate an explanatory account of what we have thus taken up, we theorize. But to theorize we must take up some content, not simply address as if they were content other formulated accounts. A deep concern for language and its potential motivated Calvino's remarks about "...a plague afflicting language, revealing itself as a loss of cognition and immediacy... extinguishing the spark that shoots out from the collision of words and new circumstances."

We should heed it as a warning about an urgent dependency, the need words have for new and authentic circumstances if thought is not to be extinguished. In our context, it is a warning about the need architectural theory has for its own

distinctive content, a need for the world of architecture itself. We in the academies have allowed — no, encouraged — our theory to lapse into theories about theories about outmoded theories from other disciplines, disciplines whose own distinctive content and problems we do not know, and within which the theories we have borrowed no longer carry weight.

Crows are famed for theft; they hoard small, glittery things in their large, untidy nests, things of no crowish value save for a presumed appeal to the unfathomable limbic brain — an earring, a bottlecap, a discarded foil wrapper, a watch (do crows tell time?) — precursors to the human love of ornament, some think. Also famed for raiding farmers' fields, crows shrewdly distinguish between vital value and infatuation, preferring corn to watches when they feed. Would we were as wise.

Why we theorize

Impulsions to understand arise *in medias res*, in the middle of things. Explainers, storytellers, and small children prefer to begin at the beginning. Only in myth, or fiction, or in such formally decidable disciplines as mathematics can one ever hope to establish one's discourse in such a fundamental place. For the rest, these predilections are understandable but vain [Fig. 1], the frequent butt of Larson's humor. [Fig. 2] We can't be there at the beginning. If we could, the nature of the inchoate would mean that what concerns us would not yet be formed, or that the very sensibilities by means of which to notice it would be dimmed below awareness. We could neither cognize nor recognize what had not yet have come into being.

An apocryphal story about an aspiring French dramatist illustrates the point. His first (and last) play concerned a young doctor who returns home from a maternity house call late one night, exhausted but elated. At this point plot, dialogue, and literary career go irretrievably astray, as he makes the doctor exclaim, "You'll never believe who I delivered tonight! Victor Hugo!"

Sadly, therefore, Laugier's charming Primitive Hut belongs in the same repository of intellectual curiosities as Rousseau's Noble Savage, or Hobbes' darker vision of man in a state of Nature, where life was "nasty, brutish, and short".



Grog Schwartz eats some bad beetle grub and the art of dance is born.

2

Theorizing is integral to inquiry. Together the pair displays a natural history, follows a genetic, which is to say a developmental trajectory. Inquiry begins in the middle of things, as a dawning awareness of something problematic in experience. Dewey situated the origins of inquiry in the existential ground of vital uncertainty—not the semblance of doubt as Descartes used it—something closer in spirit to Kierkegaard, though less angst-ridden.

Inquiry seeks to articulate that which forms the ground of our uncertainty and thereon posits a beginning. What we encounter as inchoate, inquiry treats as formful, receptive to form, and finds form for it. Inquiry seeks to make explicit that which we apprehend as tacit. The imperative of inquiry is to extract clear principle from messy circumstance.

The existential, organismic ground of being

As perceiving and conceiving beings we are creatures of our habitat, writ large in space and time. Nature made us, and made us in Her image. We became over millions of years, fashioned from ancient and recycled parts, with some few novel elements thrown in. Each element of our being has a tie to the setting in which it arose. Our sentience is built in and localized.

From birth we have been hard at the job of making sense of our surrounds, with variable success. Our world is a Tower of Babel, addressing us in many tongues. We listen to few, understand less. Dogs hear sounds we cannot. Moths detect scent with more acuity than we see. We will never perceive space like the barnswallow, or warmth like the rattlesnake. Vision cannot detect the full spectrum of electromagnetic wavelengths. The lens and retina of the eye have built-in limits of sensitivity and resolution; hawk's eyes are more acute.

The abbreviated world we do confront still overwhelms. How we move from such confusion to a stable, ordered world — one in which we can function — largely remains a mystery, but these few things are clear:

First, perception is not passive. We reach out, make sense of things.

Second, from our earliest moments, we treat our partial, local world as whole.

Third, the world holds meaning at many scales, grasped directly by sense and imagination, linked extravagantly by parable.

Both genes and culture encourage us to respond quickly and decisively to emergent events, to recognize — and act on — things that loom, and leap, and lurk. One could say that we are hard-wired to see the world as instrument, an instrument that always works on, and sometimes is worked by us.

We attend to things as omens, as affordances, things addressed to us, meant for us, flowing into our future. We decide whether a storm is imminent, whether a field is fallow or abandoned, whether a building is going up or coming down, whether the person with whom we talk is trustworthy, whether the situation on the night street, or on the subway car, is threatening or benign, whether our spouse is vexed with us. We make most of these and similar decisions with ease. Our circumstances are drenched in quality, seized as quality, pondered and judged as quality, routinely, daily, continuously.

The means of perceiving and conceiving environmental quality, form, and character are embedded in an organismic history far older than architecture, than culture, than homo sapiens, than hominids, or primates. Our eye is the Vertebrate Eye, our nervous system and its basic organization too ancient for comprehension. A few centuries of professional pretension have not changed that biological substratum, nor have a few decades of increasingly more abstract architectural discourse.

Today, we architects are enveloped by emphatic testimony to our inability to think or feel environmentally. The design languages we constrain ourselves to employ were not designed to erase qualitative thought, nor was the move to frame our ideas ever more abstractly seen as a means to erase the capacity for it. As a species, even today, we have no problem using things or qualities to think. But as a profession we display such perverse intellectual and practical traits that one suspects a trained incapacity for sensible thought.

Without that qualitative mode of thought — our species' birthright — intact and richly differentiated, all efforts to think our way through complex and muddled circumstance to wholesome form and clarity must fail. The tapestries an architect must weave are in their essence spatial and physical.

Verbal and temporal accounts — literary or discursive accounts — cannot constitute such forms.

The perjured testimony of Richard Rich finally brought Sir Thomas More to trial. Before the court Rich wrongfully attributed these damning words to More: "they [Parliament] have not the competence." The surface meaning of competence here is a simple one, technical and legal: the matter does not lie within their power. The deeper reading is the truly devastating ontological critique, for which More lost his head. When it comes to designing habitat, it seems we no longer have the competence. Worse yet, this trained incapacity seems the consequence of our academies, of our contemporary discourses in architecture. If so, we should lose our heads for it.

Dewey, speaking about the roots of intent, says, "...[A]ll deliberation, all conscious intent, grows out of things once performed organically through the interplay of natural energies...". This only describes the first half of a reciprocal equation. In design, conscious deliberation must reestablish a connection with an interplay of natural energies. Designs may be conceived (misconceived) as self-referential abstractions, yet they will become embodied. The natural history of form is a trajectory arising in sense, and — for all the theoretical conceits or imaginative incompetencies of the designer — returning to sense, where it may yet fail to make sense.

If all of the liberalizing and civilizing gist of an architectural education could be reduced to a single lesson, it would be this: Resist the retreat from Quality. Strive to see the given world, and the world we humans form, and the creatures who inhabit those worlds each with potential for more than we recognize in them, each with more than use, each with more than meaning (which at its worst is just another kind of use), each with the potential for Being.

A Conversation about World Views

The most direct window we can open on Design and Design Education consists of the stories we tell ourselves to explain or hold in memory salient features of the experiences we each have had. The ideas I present here are articulations of my experiences with the world of design — first as a student, then as a teacher, and throughout, intermittently, as an practitioner.

I think we can share with one another glimpses of what we each find that world to look like; I think we can learn to appreciate and respect the enlargement of our own experiences which another's represent. As the painter Robert Irwin remarked of other artists, and indeed of the general function of art, They take me down paths I would never have thought to travel. I hope to take you down a few you may not have thought to travel.

That which has been called theory in architecture has varied significantly in content, modality, and purpose during the past five decades, the scope of time which falls within my own experience.

When I left my parents' home to study at the School of Design, what you call Modernism held sway. Few could see its edges. As water is presumed to be for the fish, the modern was for us — our environing, invisible medium. It was not, then, a world-view. It simply was our world. This must now seem strange to contemporary ears, so accustomed to the Babel of conflicted pluralisms.

Just three contents in architecture were treated with theoretical attention, marked off as autonomous domains: first, architectural history (there is no other way to treat it — all history is an account of events only indirectly accessible to the historian who constructs it); second, that branch of physics which gives account of structural behavior, and; third, that branch of mathematics which codifies the means to describe extension with unambiguous precision. All other ideation, all other discourse about value and principle was subsumed within the studio. The Balinese once proudly declared, "We have no art. We do everything as well as we can." In the contemporary sense of theory, we had no theory. We did everything as well as we could.

History was treated (selectively, but usefully) as case studies in building morphology through time. While also set apart in its own self-sufficient course sequence, structures was speculative, pursued experimentally in the studios of teachers like Nowicki, Catalano, Candela, and Fuller. Descriptive geometry was distinctly Mongean, treated as *a system of ideas explaining something, especially one based on general principles independent of the particular things to be explained.*

This last was rare in my country. A mid-nineteenth century

American writer on the subject had put it thus...

The subject of Descriptive Geometry, which is treated in these Elements, has not, as yet, been considered in this country as a necessary part either of a polite or practical education.... In France, Descriptive Geometry is an important element of a scientific education; it is taught in most of the public schools, and is considered indispensable to the Architect and Engineer:

...and a century later the general situation had not much changed. Our School's case was rare, a fortuity attributable to our professor, a brilliant young Frenchman and recent graduate of the Ecole des Beaux Arts, where Monge's legacy had remained intact.

The problematic entered our world as it always enters, at first unnoticed. In retrospect one can point to Gary Powers' downed U2 and Dwight Eisenhower's all too public lie, the triumphantly beeping sputnik and the US Navy's sputtering Vanguard rockets. There was the Day the Music Died, and the Bay of Pigs, and the Thirteen Days of the Cuban Missile Crisis, the assassinations of John and Bobby Kennedy, Martin Luther King's luminous epiphany and tragic death, Lyndon Johnson's launch, both of the Great Society, and the Great Debacle of the Vietnam War, which would cripple it. The Beatles were there, and the Stones, and Dylan, and Baez, and the sit-ins at Berkeley and Columbia. All in one decade! What is now called Modern simply was not strident enough to compete.

The conceits of theorists of Charles Jencks' generation notwithstanding, the Modern did not suffer intellectual defeat; its ideas were not discredited, thus leading to a deserved overthrow. *Its ideas were embedded in its practices*, hence dependent on uninterrupted practical and experiential transmission. These were interrupted as a generation of youths attended to other matters.

In consequence, our academy endured its own minor Revolution in the late sixties and early seventies. The intellectual climate was analogous in some small way to that of the Terror. The Modern consensus had dissolved. Descriptive geometry — product of the Enlightenment — suffered much as had Monge, its founder, 175 years before. It was put to flight and vanished as a theoretical discipline. Some small amount of the content, perceived by the revolutionaries to be relevant, survived in inarticulate form as the practice of architectural graphics. Theory, like a spot light in a cavernous and darkened room, now played on other contents, most notably design and educational methods.

As is customary in Revolutions, the New Regime eventually wrote the stories of the nature and significance of the Old. In the intervening years I have heard and read many stories of the Modern in design. Each failed to encompass or characterize the life of the mind in a design school of that era. The best (indeed, the only adequate) account remains Benevolo's two volume history, published the year I started school.

Revisionism is always immature, with suspect motives of its own; in the zeal to avoid content, which implied judgment and hence, authority, the academy paid its theoretical attention to methods (particularly educational and political methods) by which one (anyone) might construct a valid future.

Unfortunately, few were wise enough to realize those methods had no consequence for built form. An entire generation was educated as designers using only a primitive, value-neutral taxonomy of form to guide decision.

Nevertheless, it was a good time to study design education. Almost accidentally I began to teach.

Another decade and I began to teach overseas. Instruction was in English, though for the students English was a second or third language. Rarefied discourse — the terms and phrasings I learned in graduate school and practiced in St. Louis on hyper-intellectual, urban graduate students — now failed to connect.

I rediscovered the experiential foundations of studio teaching, and began to speak more simply. I discovered a truth that every poet, every mystic, and every humorist already knows. Bad poetry, weak faith, and most humor is grounded in confusion of the literal with the figurative.

The Zen koan warns, "There is a finger pointing at the moon. Do not mistake the finger, pointing, for the moon."

An indignant customer complains to his waiter: "What's that fly doing in my soup?" Dutifully the waiter inspects the bowl and then explains, "It looks like the backstroke to me, sir."

Theoretical discourse suffers just this jumbled fate as it crosses linguistic and cultural divides. Metaphor and parable, humorous or serious, survive the transit intact. I began to tell stories, not to entertain, but as a means to convey ideas, to convey the import of ideas.

Everything I needed to know I learned in...

We all study math to get through school. Our diploma requires it, and some parts of our curriculum actually use it. I suspect we all studied it in much the same way. I taught math for several years, and devoted years to the study of geometry. From today's perspective in late career, the realizations that strike me most are *how little of what I studied proved useful, and how much my understanding of the life of the mind has been shaped by mathematical ideas*. Two species of ideas remain in my mind: one is a small set of basic principles and operations of constant utility; the second, a world of forms and transformations of negligible utility but great beauty. In Frank Oppenheimer's words, "Understanding is a lot like sex. It's got a practical purpose, but that's not why people do it normally."

Unlike mathematics, design is not a particularly intellectual or theoretical field. Like its sister discipline, however, the ideas that have the competence to engage practice are few and comparatively simple. The theories design employs are largely technical in nature. What is called criticism today is rarely specific, or directed to the goal of improving the way we do things, or improving the adequacy to their settings or purposes of the things we do. Post-occupancy evaluation is the closest the field has to reflective practice, but critics disdain this role. What is called criticism operates like a 'bait and switch'; self-referential discourse about an artificially delimited alter-sujet is substituted for the more difficult task of contending with the specificity of architectural content.

Can a theoretician not evince as much interest in metallurgy as in metaphysics? Display as much curiosity about the Corinthian helmet [Fig. 3] as about the symbology of the guttae on the Parthenon? Be as much in love with the promise of the future as the presence of the past? [Fig. 4] Be more concerned with a democracy of the human spirit than the dogmatic intellection of an academic (and practically defunct) Marxism? Be as much bemused by clarity as by hermeneutics?

May we not devise a critical tradition which recognizes in the solipsistic tendencies inherent in (for instance) a Heidegger, not the promise of a greater, more authentic truth, but the threat of an autocratic vision; one too disdainful of the popular mind to be bothered with either explication or justification?



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Architecture embraces the academic at its peril. Though situated in the university it is still a professional field, not an academic discipline. However, its setting promotes anxiety, externalized as a rhythmic identity crisis leading to (other) disciplinary envy. Twenty-five years ago architecture abandoned equilibrium and lurched toward the social sciences. Today it has an advanced case of Humanities-Envy, one symptom of which is to turn attention away from the open-ended, outer world of sense and event and toward progressively more self-contained and self-referential *verbal argumentation*.

Those fundamental ideas that have the capacity to guide practice, to effect an interface with design, are simple, rather than convoluted, clear rather than conflicted, constructs rather than deconstructions. As such, perhaps they fly beneath the radar of theoreticians. But they fly, and enable flight.

Have sophisticated abstractions no role in design?

In fact, there is no intrinsic limit to the capacity of abstract terms or operations to embody an immediate qualitative sense or to be vehicles for signification. The telescope and the microscope extend our vision; they allow us to cross the boundaries placed on sight by the resolving power of the lens of the eye and the grain of the retina. The scanning electron microscope pushes beyond the boundaries imposed on resolution by the grain of the retina and the periodicity of the wavelengths of visible light. The use of infrared sensitive film allows us to image as if to vision structures in the world that we can never see, structures revealed only by electromagnetic frequencies to which our eyes are insensitive. The photographic plate enables the imaging of high frequency energies which pass straight through soft tissue like the eye.

Though vision is continually augmented by technical developments that allow one to receive reports from beyond the edge of human perception, these instruments render their exotic images to ordinary sense. Imagination construes their import. Nothing intrinsic precludes the possibility that speculative abstractions emanating from afar may someday inform practice. But an architect who hopes to borrow insight from another discipline — applicable at home right now — might more profitably look to Peter Senge's *The Fifth Discipline*, or

John Van Maanen's case studies *Tales of the Field* than to the work of *Deleuze* or *Lacan*.

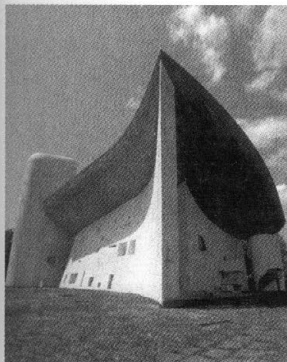
What is wanted is *specificity* of thought, which lies neither in the domain of the concrete nor the abstract. There are no particular things which are abstract, nor others which are concrete. The terms refer to how a given thing is being taken up in thought. They mark a direction in the trajectory of viable reflection or anticipation, either away from things as encountered, or toward them as such. Specificity inheres in those developmental acts which bind abstraction to concreteness in some particular fashion.

"We at Braun believe that simple is better than complicated..."

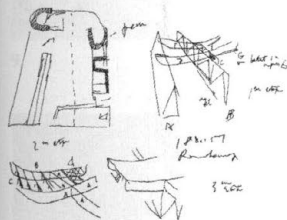
So the elegant television ad began, and enumerated the firm's core values. Design principles are constituted by values, not discourse — a predilection to seek the simple in preference to the complicated, the coherent in preference to bare conjunction, a choice to seek substance in preference to semblance, a choice to heed the call to serve — *that they may have life, and have it more abundantly* — rather than to pose.

There is no doubt that, on the surface, the world of architecture today is more permissive than the one I was introduced to by my teachers. I envy no one that difference. No theory permitted Ronchamp before the fact. It was won, not granted, and we have a building for the ages in consequence. [Fig. 5] Qualitative, synthetic thought constructed elegant, practical solutions to problems posed by vision. [Figs. 6, 7] Fifty years ago Graves' Disney Hotel would have been equally unthinkable. Does permitting it imply a progress of sensibility?

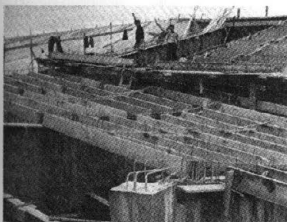
One story in the margins of *Richard Wurman's Information Anxiety* caught my eye. It's a small spatial story that speaks of limit and principle. Ted Williams was the greatest hitter in the history of baseball. The last major league hitter with a season batting average over 400. Noted for excellent eyesight (20/10), and for never swinging at a pitch outside the strike zone. A reporter quizzed him once about these notables. Williams' terse, matter-of-fact answers arc like ancient parables across today's elastic, conflicted landscape.



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R: Is it true your vision is unusually good?
 TW: Yes.
 R: Is it true you only swing at pitches in the strike zone?
 TW: Yes.
 R: Wouldn't you get more hits if you swung at more pitches?
 TW: Probably.
 R: So why don't you swing at some of those just outside the strike zone?
 TW: I wouldn't know where to draw the line.

I draw the line thus:

With whatever else it may sometimes be concerned, all design is always about the external world.

The ways in which the world shows itself to us (phenomena) are stable indices to deep structures (principles, laws) which underlie and give rise to them. There is no such thing as mere appearance.

At any given moment our sense of and conception of this world are only indifferently adequate as tools to manage the course of our future transactions. There are more things in heaven and earth...

The contents, attributes, and qualities of the world as found are continuous with those of any world transformed by our designs. To attend to given qualities is to develop a storehouse of imagery which pertains as fully to the possible as to the actual from which it is drawn.

Authentic perception, directed by active intelligence, is adequate to enlarge and indefinitely differentiate our storehouses of imagery. In C. S. Lewis' words, the universe rings true wherever we fairly test it.

To be concerned with the world as human habitat is to see the world as value-laden. This concern is not reciprocal. We may grasp the world by means of our ideas and practices, and hence, in this restricted sense, ideation may be called primary, constitutive. But not any idea or practice will do; the world displays a stubborn recalcitrance to be fruitfully encompassed by accounts of it that do not take it into account.

Design ideas display a reciprocal trajectory: increasingly general structures arise from and articulate experience, while increasingly specific structures reenter and regulate experience. Conceptions are instruments of thought, not autonomous constructs. Design theory must provide advantage in design action to establish a credible interface with practice.

In the building sciences and in the geometry of description design

comes as close as it can come to employing what should be called theory.

Mnemonics

A modest set of elementary themes form the lens through which I view the interface between theory and practice.

ONE: first principles & parsimony: in the Modern worldview design thinking always was seen as a search for first (i.e., fundamental) principles—"to the roots of the things themselves", to paraphrase Husserl. A considered design response necessarily reformulates given, which is to say culturally received, forms.

PHILIP VINCENT designed the now legendary motorcycle that bore his name. [Fig. 8] His formulations of the root problems in motorcycle design were radically at odds with those of his contemporaries half a century ago. Vincent's business venture, vigorously innovative for several decades, failed in the middle fifties.

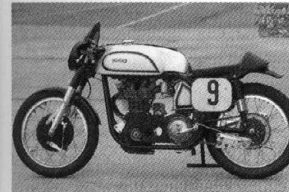
Conventional design formulations (the Norton Manx with its 'featherbed' frame was one) [Fig. 9] seemed temporarily validated by the Vincent's demise. Several decades later Norton, too, passed into history. One by one the components of the paradigm which Norton had embodied — vertical twin engine, separate cradle frame [Fig. 10], twin shock rear suspension — were replaced by Philip Vincent's anticipatory innovations, reappearing in the guise of universal, mainstream practice.

Vincent reasoned that high performance meant balanced performance over the life of the machine. The primary enemies to be overcome were excess weight, insufficient rigidity, and highly stressed drivetrain components. His contemporaries sought to resolve these problems singly; Vincent took a whole systems approach.

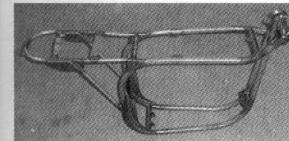
He configured the engine as a Vee, the plane of the engine coincident with the cycle's longitudinal plane. The front cylinder head lay conveniently near the steering head, the rear suggestively near the rear suspension. The structural exigencies with which an internal combustion engine must cope are inherently stringent. Vincent bridged between the cylinder heads (the open ends of the Vee) with a structural oil reservoir. Fully triangulated, the engine was now rigid enough to



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serve as frame. He bolted the steering head to the front of the oil reservoir, the rear swing arm to the integral transmission case.

The conventional swing arm is a plane structure; the major forces act perpendicular to the plane. Flexure is unavoidable. Vincent triangulated this element also, and attached one end of the coil spring shock at this new apex, the other to the rear of the oil reservoir. All major forces were thus resolved within a compact and rigid zone; the engine tied it all together. [Fig. 11]

There were other innovations, all characterized by Vincent's characteristic analytic clarity, the same synthetic approach to resolution. The ones just covered suffice to illustrate the core principles: drive every issue back to first principles; ask every element to play more than one role; integrate the component contributions in a nested, whole systems hierarchy.

Vincent's vision wrought synergy and balance. The resulting machine afforded superlative performance — acceleration, top speed, fuel economy, handling, braking, reliability. If you have the time and the inclination, search among current motorcycle specifications for a 1000cc displacement, high performance machine with a curb weight of 400 pounds. Good luck!

TWO: the morphological presupposition: *theologians once based arguments for the existence of a Creator by appealing to formed events in the given world as evidence from which one must infer purpose and design. If phenomena exhibit design, what they show forth is evidence for their Designer.*

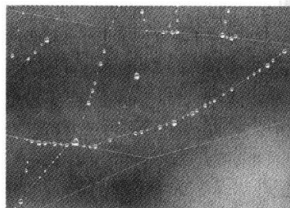
Natural science and systems theory give a different account: what we read as form in nature is a transitory balance, one which comes about as small, undirected increments of change tune exigency to opportunity. Equilibration, they call the process.

The Argument from Design drew inference from living form. While the concept of equilibration derives from the life sciences, one can illustrate the principle just as clearly with physics. [Fig. 12] As physicist David Gross declares, "At the fundamental level nature, for whatever reason, prefers beauty."

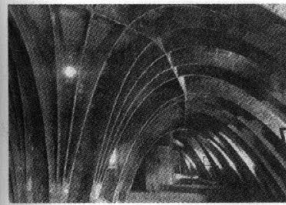
ANTONIO GAUDI devised an equilibrating, natural computer to ensure his complex, visionary forms were in structural equilibrium.



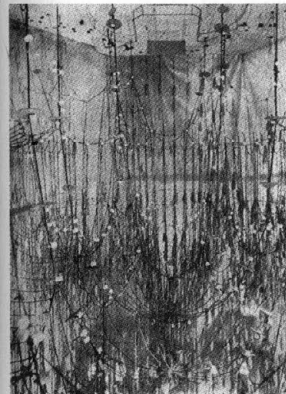
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Picture a finely wrought and supple chain hanging in a generous and graceful loop from two attachment points overhead. The curve it assumes is a catenary, from the Latin word for chain. It is the formal embodiment of tensile equilibrium, its purity constrained only by the uniformity and suppleness of the chain within which the balance is established.

Next, picture a third attachment point forming a triangle with the other two. Hang a second length of chain from this one, then connect the free end to any point along the catenary. The system is momentarily thrown off balance; it swings back and forth. Then the movements dampen and the chains become still. A new tensile equilibrium has been established, one which takes into adequate account the change in conditions resulting from the weight and position of the second chain.

Gaudi used the procedure in simple multiples to derive catenary arches. [Fig. 13] Suspended as a chain, the catenary represents pure tensile equilibrium; inverted, the same curve describes a similarly pure resolution in compression.

There is no intrinsic limit to the number and variety of tensile forces that Gaudi's device could resolve, simultaneously and dynamically — real time, in current cant. More complex structures required some calculation, as added weights differentiated the uniformity of the chains to account for what Gaudi knew to be varying or concentrated loads below (i.e., above). [Fig. 14]

Inverted, the photographic image anticipates a computer wireframe. [Fig. 15] Gaudi draped his chains in cloth to better visualize the resultant architectural form. [Fig. 16]

Juan Bassegoda Nonell, a noted Gaudi scholar, exposes Gaudi's predilections and methodology clearly:

If nature works by always looking for final solutions, since it is subject to the inexorable law of gravity, there is great wisdom in studying natural structures, which have been accredited by millions of years of perfect functioning. Knowing the essence of these structures, Gaudi sought to bring them to the arena of building.

He observed that in nature many structures are composed of fibrous materials, such as wood, bone, muscle, or tendon. From the viewpoint of geometry, fibers are straight lines and curved surfaces in space made up of straight lines that define a straight-line geometry, which is based on just four distinct surfaces: the helicoid, the hyperboloid, the

conoid, and the hyperbolic paraboloid. Gaudi saw these surfaces in nature and brought them to architecture.

The helicoid is the form of a tree trunk, and Gaudi used this form in the columns of the Teresian School. The hyperboloid is the form of the femur, a form he used in the columns of the Sagrada Familia. The conoid is a form frequently found in the leaves of trees, and this form he used in the roofs of the Provisional Schools of the Sagrada Familia. The hyperbolic paraboloid is formed by the tendons between the fingers of the hand, and he built with this form the porch domes of the church crypt in the Guell Estate.

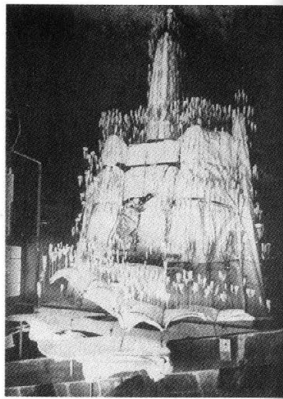
Subsequent designers in a long, unbroken lineage follow Gaudi: Freyssinet, Maillart, Nervi, Candela, Isler... Each has seen design from a similar perspective. Form, revealed through nature, experiment, and practice, played an equilibrating function in their art. In all design most of the factors that need balancing and conjoining are external to the volition of the designer who cannot choose them, or choose whether to deal with them. The designer who embraces these factors on objective terms finds beauty in the necessity of deep structures.

The works of humankind reenter and enlarge the given external world. Whatever we do embodies within it a constellation of characteristics or attributes, which flow from our actions as their consequences. Their variable fortunes with the vicissitudes of natural forces and processes present instructive criticism for those attentive and patient enough to read them.

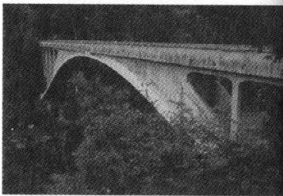
Robert Maillart discovered cracks in the reinforced concrete webbing of an early bridge. Maillart realized the cracked concrete was not doing anything useful; if its contribution had been essential the structure would have failed. In a subsequent design, rather than strengthening these areas, he carved away large portions of them [Fig. 17], and so began the series of elegant designs for which Maillart is famed.

The structural approaches of Nervi and Candela proved as applicable to factories and warehouses [Fig. 18] as to churches [Fig. 19]. The economies they achieved with thin shells were authentic.

The beautiful economies attained by these acknowledged masters of structural form stand in stark contrast to the celebrated Sydney Opera House. The so-called freely shaped shells became a prison for all involved. Eventually the architect was fired, the engineers gave up on the shell analysis after countless hours and resolved the structure as a series



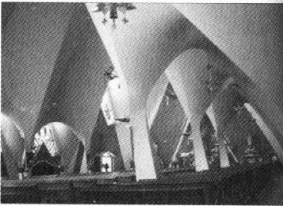
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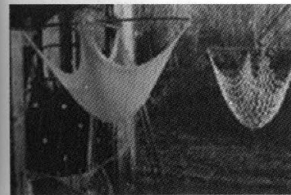
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of arches, while the owners paid over twenty times the initial cost estimate for a scaled-down version of the initial plan, a mere semblance of Utzøn's original vision.

David Billington's *The Tower and the Bridge* is an extended essay on the ideas and practices of structural art. In a chapter on the work of Heinz Isler the author draws extensively on Johan Huizinga (from *Homo Ludens*). Among the quoted passages is this: "...the profound affinity between play and order is perhaps the reason why play seems to be to such a large extent in the field of aesthetics. Play has a tendency to be beautiful."

Billington concludes:

As the Swiss air freezes, Isler can be found night after night spraying water on tent-like sheets of gardener's netting or inflated balloons or on shrubs or trees to create a world of ice forms—pure play out of nature's cool discipline. These temporary forms flow out of Isler's exuberance and curiosity... [Fig. 20]

What Candela wrote of Maillart could be taken as a mantra for the ensemble:

He achieved a beauty without need or purpose; just for the pure joy of it. The kind of joy that you can feel also in the works of Haydn or Vivaldi. They were simply enjoying what they were doing...

THREE: the geometry of buildable form: *though form brings an ideational component to design, it is not some thing added to other things, another entity among the elements making up design. Think of it as a function rather than a thing, a process or activity whose role it is to unify, proportion, balance, adjudicate, and render coherent, intelligible, and fulfilling the often discontinuous, competing, conflicting elements in a design situation.*

For an architect form must be built. Looming large, therefore, among the competing, conflicting elements to be unified and fulfilled are structural and constructional ones. From the Pantheon and Hagia Sophia to the designs of Gaudi, Maillart, Nervi, and Candela, the time-honored means to address both concerns is through the rationalization of form. Two projects, one tiny, the other immense, can serve to illustrate how an interest in buildable form can lead two designers to make similar formal choices.

The development of the modern cruising multihull sailboat owes more to Jim Brown than to any other living boat

designer. Known to many as Trimaran Jim, Brown — like Maillart, Nervi, and Candela — epitomizes the Reflective Practitioner; he builds, and sails, and lives with his designs. Brown repeatedly reformulates both ideas and practices, based on long and intimate observation. He formalized and patented the essential core; ConstantCamber he calls it.

To realize the performance potential of the type, a sailing multihull must be both light and rigid. Billington's observations about the imperatives of larger forms of structural art apply as well to boats:

Geometry makes forms lighter and, hence, loads smaller, whereas mass makes forms heavy and increases loads... The thin shell solution is a structure made as thin as is practical, which is at the same time mainly in compression. The designer best satisfies this goal by making a form that is doubly curved... and that has a minimum of sharp changes in thickness, in curvature, or in boundaries.

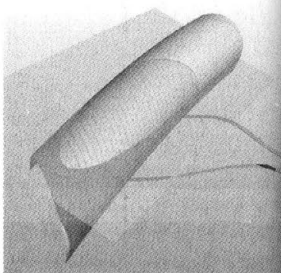
A thin shell — as thin as is practical — with double curvature is ideal.

Cold-molding is the preferred constructional method. Thin veneers of wood, saturated with epoxy resin, are laid up in layers over a mold. Atmospheric pressure (vacuum bagging) does the clamping. Fibers other than cellulose can be used but all are heavier (most wood floats) and more costly.

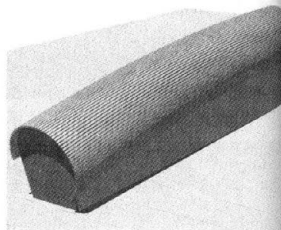
Epoxy cures (hardens) through an exothermic, catalytic reaction. Working time is short. The adhesive is strong and tough; builders dread mistakes in layup. If the thin-shell hull form meets only structural or hydrodynamic criteria the likelihood is great that each cross-section of the form is unique. Each veneer strip must be similarly unique, meaning uniquely spiled (its shape derived in situ), and cut, and placed. Uniqueness is time intensive, at odds with the constructional imperatives of cold-molding with epoxy.

Brown's insight was to realize that *all* criteria for a thin-shell hull — structural, hydrodynamic, and constructional — could be satisfied by sections cut from a pair of mirrored, appropriately profiled, toroidal surfaces, one for each side of the hull. [Fig. 21] As an added benefit the mold becomes easy to build. However complex the profile, all mold stations are identical, and the entire mold surface can be strip planked with identical elements following circumferential lines. [Fig. 22]

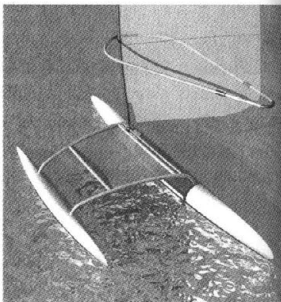
The choice to work within the (quite elastic) limits of a toroid imposes a formal discipline, a form language with pre-dispositions for coherence across a spectrum of vital concerns,



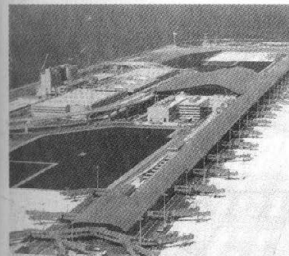
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yet within which beauty remains a possibility. [Fig. 23] KANSAI IS Japan's second most populous region, but only one airport served its 20 million inhabitants. Last updated in 1970 and hemmed in by the city of Osaka, Itami International could neither expand nor extend its operating hours.

Officials boldly decided to construct a new airport on an artificial island in Osaka Bay, with takeoff and landing paths entirely over the sea. The enormous costs of construction would be offset by the economies of a 24 hour airport.

Situated 5 kilometers offshore in 20 meters of water, the island took five years to complete. It connects to the mainland by road, rail, and hydrofoil.

The terminal authorities adopted a novel scheme proposed by experts in Paris. Renzo Piano's Building Workshop, teamed with Ove Arup & Partners, won the contract for the terminal building. The terms of the contract obliged Piano's consortium to coordinate planning with the French team and to implement their innovative schematic, which called for the domestic and international terminals to be stacked, rather than bi-polar.

The airport project was to become a model of design as complex synthesis. The Building Workshop's signature whole systems, collaborative approach to design is nowhere more richly realized than at Kansai.

Only a few aspects of this remarkable project fit within the scope of the present paper. Our discussion will be limited to those prime respects in which the vast and complex Kansai airport resembles Jim Brown's work with multihulls: for a complex of similar motives, the terminal project employs a geometry of toroidal surfaces.

The region is subject to vast cyclonic storms called typhoons, the Pacific equivalent to an Atlantic hurricane. Typhoon stormheads reach altitudes of 24,000 meters, with winds in excess of 220 kph. Meteorologists estimate that the total energy in a major cyclonic storm system is sufficient, if harnessed, to meet North America's energy needs for a week.

Not hydrodynamic, but anticipated aerodynamic forces urged the adoption of ...a form that is doubly curved... [with] a minimum of sharp changes in thickness, in curvature, or in boundaries.... (Billington)

Designed as a single runway airport, the Kansai terminal building is necessarily long and narrow, stretching two thirds the 4.4 km length of the island. [Fig. 24] The scale of the underlying toroidal geometry is similarly immense, with a radius of some 17 km, a dimension established by the required overall concourse length, together with the height differential between the end of the concourse and the central hall. The resulting longitudinal curvature, though subtle, is evident in the runway (sea) elevation. [Fig. 25]

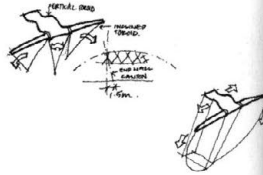
While Jim Brown's formulation slices a section from the toroidal surface with what will become the centerline plane of the hull, the Building Workshop uses the entire designed profile from end to end.

Various strategies were considered to integrate the entire airport roof within a single system (... a minimum of sharp changes in thickness, in curvature, or in boundaries...). Early schemes sought to incorporate the deep, central arrival and departure hall within the toroidal strategy. This was finally abandoned, in part because the plan of the great hall would necessarily taper (by 1.5 m), in part because the enormous trusses that spanned the space would have to tilt. [Fig. 26] Buildability demanded uniform truss profiles; to be uniform, the cross sections of a torus must radiate from the axis of the form, hence the sections (the trusses) would have to tilt. The much smaller, shorter trusses used to span the (toroidal) concourse wings are also uniform in profile and do, in fact, tilt.

The solution that was finally adopted was a single, faired surface with a hybrid geometry. The central hall would have a cylindrical geometry; the long concourse wings would be toroidal surfaces. [Fig. 27] The forms merge seamlessly in transverse and longitudinal sections, using a technique any road (or typeface) designer would recognize. [Fig. 28]

The great difference in scale between the arrival and departure hall and the concourse is revealed in both (partial) plan [Fig. 29] and transverse section [Fig. 30]. The concourse zone has been tinted in both drawings for clarity.

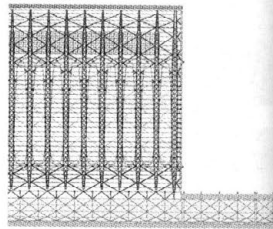
Like that developed for the central hall, the profile used for the concourse wings is a faired set of curves with a compound geometry. [Fig. 31] The profile splits as roof becomes façade; one part peels away to form a protective canopy, the other wraps past the vertical as glazing. [Fig. 32]



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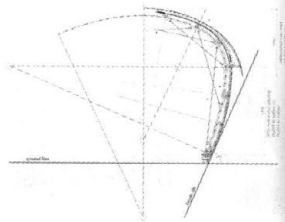
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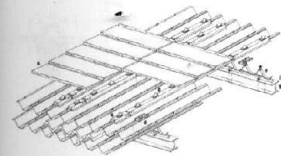
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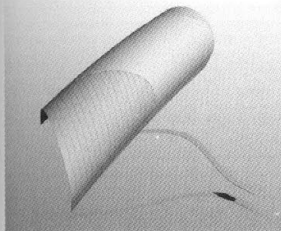
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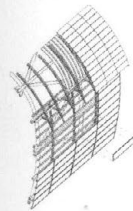
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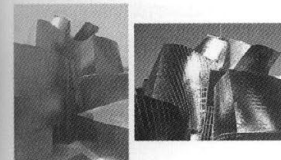
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Technically, neither Brown's hull forms nor the Kansai structure are shells; rather, both are built-up skins. While Kansai is skin-on-frame, Brown's cold-molded hulls are monocoques. The skin elements in Kansai have mechanical fastenings; Brown's method uses chemical bonding. Both skins are many-layered. Brown uses diagonal strips, all identical. Alternate layers mirror directions; Brown turns the strips over. Kansai's many-layered skin is more complex by far [Fig. 33]; each layer plays a different role.

Jim Brown and the Building Workshop share a similar concern for buildable form. At Kansai, as in ConstantCamber, this concern is manifest in a strategy of uniform elements from which to make the skin. In ConstantCamber the veneer elements run across the mold from edge to edge. [Fig. 34] While all strips are uniform in shape, within a strip the width varies with the distance from the toroid axis.

Strictly speaking the same should be true of Kansai, but the rise and fall of the profile is negligible compared to the much larger radius of the torus. The panels that comprise the outer skin are all the same, all planar, all rectangular. The theoretical disparity in edge lengths is so minute in absolute dimension ($\leq 5\text{mm}$) that the difference is accommodated by the reveals between the panels. [Fig. 35]

This strategy stands in marked contrast to the new Guggenheim Museum in Bilbao, where concern for uniformity or planarity in the tiling elements was subjugated to Gehry's plastic vision. [Fig. 36] The contrast in design values can be drawn even more sharply; thinking ConstantCamber would resolve constructional problems, Gehry consulted Brown on a version of the 'crumpled handkerchief' roof, part of the (now infamous) house project for Peter Lewis. When the two designers each discovered the other's formal predilections the consultancy ended.

Toroids play another, non-structural role inside the arrival and departure hall. A whole systems synthesis resolved what are often competing interests: that of the designer for a clean, uncluttered interior space; that of the mechanical engineer for optimum (plentiful, well-mixed, noiseless, draft-free) distribution of conditioned air. The outlets, high along the edge of the main span, blow a ceiling-hugging stream of air along the grain between the trusses. [Fig. 37] A suspended toroidal profile, formed in fabric, is shaped to ensure laminar

air flow. Its curve falls and tightens in tune with the diminishing velocity of the cool (and falling) air. [Fig. 38]

All design is an interplay between intentions, means, and attributes. The designer's every act embodies within it a constellation of attributes, which flow from it as its consequences. The designer tunes each instrument until its consequences are consistent with her purposes. In fact, a designer employs many instruments in any given project. In complex ones like Kansai plural attributes of plural instruments overlap and interact.

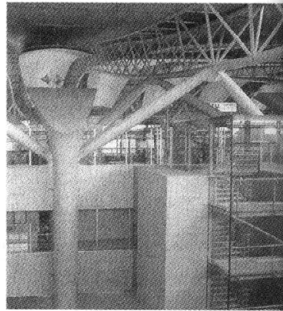
What is meant by a whole systems approach is that the designer chooses a nested hierarchy of solutions (instruments) inherently congruent with one another and with need at every level. Usually, but not necessarily, this is achieved through systems of components, each chosen for its own proven merit as a device, and for its proven ability to integrate with other systems in the hierarchy.

Rarely do such fully integrated, whole systems arise within a single project. Rather, they come about incrementally over an extended period of time as the designer, in pursuit of consistent objectives and ruled by persistent values, refines a favored set of strategies and components. It honors the quality of underlying thought to call the resulting forms equilibrations. The coherent hierarchy of mutually supportive, self consistent systems of devices and strategies one finds in Kansai is the mature product of what Peter Senge terms a Learning Organization.

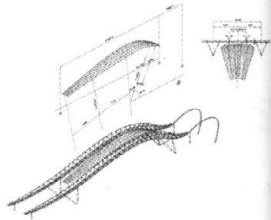
FOUR: buildable form and social conscience: because ConstantCamber caught the attention of influential people, and because Jim Brown is caring as well as competent, the World Bank called on him to visit various parts of the developing world and conduct small experiments in the transfer of appropriate technology and expertise.

IN AFRICA, the livelihood of Burundi fishermen was jeopardized by the worst aspects of so-called modernization. Traditional Burundi watercraft were long, slender dugout canoes. Timber harvest for export had depleted the stock of trees large enough for new canoes. The older canoes lay rotting; imported outboard motors favored other hull forms, also imported. Between initial cost, maintenance, and fuel, the outboard's cluster of imported technologies combined to make fishing unprofitable.

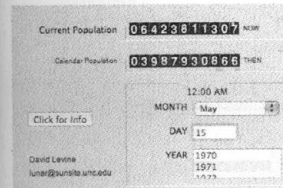
Brown designed a thin-shell, ConstantCamber canoe, taught the Burundi how to build it using local tools and timber



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(cold-molding with epoxy-saturated wood veneer is tolerant about timber type and quality). The World Bank supplied epoxy. The Burundi's new canoes are light and easily driven; paddles provide ample power. With the outboards retired from service, income went up, costs went down, and Jim went home.

Epilogue: Learning from Kikwit

The parable of the Good Samaritan launches from what seems a simple question: "And who is my neighbor?" This one's similar: "And who will be your clients?"

We talk about the global village, the global economy, a global architectural practice. We talk glibly, without real thought. We speak of cities and civilization, urbanity, and arcadia, and culture. Many images we attend to are of long ago and far away. I love Greece, and Homer, delight in the tales of Leonidas and Phidippides. Delphi, and Epidaurus, and Olympia are more vivid in my mind than Solidere's new Downtown. Mirrors reflect, and Distant ones give perspective. But ours are often enchanted, and distort. Athens in the Golden Age was home to fewer than 100,000. Art and philosophy flourished there, along with slavery, invasion, intrigue, colonies and empire, and incessant, exhausting warfare.

Florence entered the 14th century with a similar population, was reduced in mid-century by famine and plague to half, or less. This horror and war-beset polis was home to Michelangelo, and Leonardo, and Savonarola. Eliot's genteel salon image of people passing "To and fro, speaking of Michelangelo..." belongs to a remote, moonglow definition of culture; reflected light, not light produced. When you think of Renaissance Florence, Florence of the Medici, think of recent Sarajevo, not Paris through the eyes of Stein, or Nin, or Hemingway, or Miller.

Rederive the entire life of them, and few cities of the past appeal more than those we know, and love, and loathe, and fear, and struggle with today. But there are other cities, and the lessons of the past, or of Las Vegas, have little to do with them. They are cities waiting to occur, unintended cities, many, many cities.

A few clicks of the mouse a few days ago and a just-discovered web-site displayed a huge and undigestible number on my computer monitor: 6,423,811,307 it read when I first logged on. [Fig. 39] The number was a guess; another site claimed 50 million more. Thirty seconds later the digits

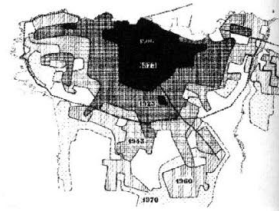
rolled, like some terrible odometer, and the number grew. Half-minute by half-minute, I watched updated estimates of global human population.

Every month we grow by six million souls. Almost twice the population of Lebanon or the UAE, new, each month.

The birth rate, minus the death rate, equals population growth. Current global estimates forecast 50 new Beirut [Fig. 40] each year — or 75 Dubais. Dubai, the Gulf miracle, which boasts of a population growth of 25% over the past five years. There won't be a Burj Al-Arab, a Phoenicia Hotel, a Hamra Street, or an AUS or LAU in any of them. Kikwit, Zaire, will be closer to the norm than either Dubai or Beirut. Do you remember Kikwit? You should — no — you must remember Kikwit. A place name I never heard before was burned into consciousness and conscience when hemorrhagic fever (ebola) broke out there in 1995. "Kikwit General Hospital," the news anchor announced. Mental images of my local modern hospital were shattered as newsreel footage presented tin roofs, concrete blocks, sheds scattered amongst the grass and mud and forest, knit together by dirt roads and paths. Kikwit was a village, not a city.

What caught my imagination was its size; fully half the size of Dubai. Seventy-five or more new Dubais each year? No; one hundred fifty new Kikwits! Are our theories of Good City Form adequate to address these needs, these cities, these urbanites? Lady Barbara Ward called such a city the unintended metropolis. Unanticipated urgency has eclipsed intention. Narcissistic aestheticism characterized the design arts at the close of the last century. Like a virus, it erupts periodically, when the body politic is in poor moral health. "When art is in the beauty parlor of civilization, neither art nor civilization is secure," wrote Dewey. It misses the point to claim there is a looming global need. We are engulfed in need right now, civilization is far from secure, the arts have deserted their post. Humankind did reach a new century, technically, by clock and calendar several years ago. As parable, the marking of a thousand years signals transformation. Our neighbors' hopes and sensibilities are circumscribed by plague, and famine, by life in concentration camps, vile slums, on the fringes of encroaching deserts. Our neighbors are born and perish in Belfast, and Baghdad, Kinshasa, Sarajevo, Pyongyang, Calcutta, Washington, Grozny, Madrid, New York. Can we, fashionable, fastidious, ironically detached, posing in post-history ignore their need? Are our cultivated sensibilities adequate to usher in the Millennium?

Kikwit, and the thousands of nameless, unknown Kikwits to



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come will be home to your neighbors, my children's neighbors.

Who will be their architects? Their theorists? Who among you has both will and competence?

Antoine Romanos

From Anguish to Hope

Noticing that reality is more random than predictable; that logics is no longer rigorous, but has been replaced by uncertainty; it is reasonable to admit that we are given a certain space/room to liberty/freedom, but at the same time we are disquieted by the lack of reference points. As a matter of fact, many of our contemporaries would rather trade this freedom with the reassuring guidelines of the prison of the quotidian. Today we have to accept our new status of explorers faced with the unknown; we are about to venture into a century where the previously delineated paths can no longer be extended.

De l'angoisse a l'espoir
Albert Jacquard

In the space of liberty we enjoy, it is reasonable first, to attempt a formulation of the question: whither theories in architecture? After Charles Yves' unanswered question: whither music?

Any attempt to formulate the question "whither theories in architecture" should obviously be rooted in the definitions of the term "theory" and the term "architecture" articulated around selected historical references.

Theory: a systematic *ideational structure* of broad scope, conceived by the imagination of man, that encompasses a family of experiential laws regarding regularities existing *in objects and events* both observed and posited; a structure suggested by these laws and *devised to explain them* in a rational manner: Critical thinking and Critic. [E.B.]

Architecture: "The art and technique of building employed to fulfill the practical and expressive requirements of "people"
[E.B.]

a work of architecture is characterized by:

- 1- *suitability* to be used by human beings in general, and *adaptability* to particular activities
- 2- *stability* and permanence of construction
- 3- *communication* of experience and ideas through form.

In order to trace the *implementation path* of architecture as a discipline of intellectual inquiry in the "citadels of knowledge" and the evolution of its theoretical educational means, there is a need for some historical landmarks:

After 27 BC Vitruvius

De Architectura (divided into ten books dealing with: city planning and architecture in general; building material; temple construction and use of the Greek orders; mensurations...)

1452 Alberti

Ten Books on Architecture (described as the Bible of Renaissance architecture, for it incorporated and made advances upon the engineering knowledge of antiquity, and founded the stylistic principles of classical Art in a fully developed theory of proportionality and harmony.)

"Architecture must without doubt be directed by some sure rules of art and proportion, which rules whoever neglects makes himself ridiculous."

1570 Palladio

Four books on architecture (described as the most important and influential pattern book for architects.)

1750 De Quincy

Assumed to have implemented the first System of architectural education

De Quincy united the School of architecture with that of painting and sculpture to form a single organization "Ecole des Beaux Arts de Paris" previously "Academie Royale d'Architecture". Although the theoretical background was assimilated through the arts of painting and sculpture, students were assigned a professor of theory.

1818 Creation of two disciplines: History and Theory of architecture

"Relation of theory and history of architecture as inseparably complementary, possibly distinguishable at times."

20th centuries

Theories of architecture departing from what was before could basically be characterized by either/ nor in relation to philosophy and history of architecture.

After 1945

The moderns also express fundamental differences of opinion.

A new battle starts between the 'organic', represented by architects as different as Wright and Aalto, and the 'technological', represented by Mies van der Rohe.

The organic accuses the technical tradition of *inhumanity* and *sterility*

The 'technological' side find only chaos and subjectivism in the 'organic' approach.

The issue was to unify the 'organic' and the 'technological' tendencies. The freedom of the 'organic' forms, their richness of expression and adaptability to different situations only become real through a combination with the clear construction of technological architecture.

After 1945, Norberg-Schultz and Robert Venturi's interest in the idea of "whole" in architecture, was of major influence in the field.

1965 C. Norberg-Schulz 1965

in *Genius Loci*: the issue of Wholeness was proposed.

In this book, Norberg-Schulz outlines a comprehensive theory of modern architecture based on the practical problems of his times. (invoking the idea of the whole in the architect's task he proposes an integrated theory of architecture.)

1966 Venturi, 1966

Complexity and Contradiction in Architecture Venturi recognizes incompleteness as an acceptable notion.

Venturi notes "an architecture of complexity and accommodation does not forsake the whole".

He emphasizes the goal of unity rather than simplification in art. "It is the difficult unity through inclusion rather than the easy unity through exclusion". However, his obligation towards the whole as in architecture of complexity and contradiction does not preclude the building, which is unresolved. He states that:

A building can also be more or less incomplete in the expression of its program and its form. A building could be unfinished in relation to its program yet it is complete in the effect of its form because of the motivational consistency of its many parts. The complex program which is a process, continually changing and growing in time yet at each stage, at some level related to a whole, should be recognized as essential.

This overview gives an idea of the direction towards which theories of architecture have and continue to evolve. One could venture a formulation of the question as follows: Are theories in architecture departing from being instruments of Design?

Should architectural theories be "partial"?

Should it be assumed that theoretical concepts concerning construction and planning be left for other "texts"?

Should the direction be sustained and reach a point where processes become the objectives, not the objects in design?

The musicians of the Sixties integrated the cello into rock music while architects were trading the electric guitar for a harpsichord.

As for the Seventies, we saw the neo-classicists winning and the modernists left to Charles Jencks's myopic reading.

Enough reasons for Anguish

What are, at present, the chances of grasping the impact and the deep effect of new technologies in architectural education? What kind of speculation does this simulate? Or simply what would we be doing about it?

Frederic Migayrou in his introduction to the "architecture non-standard" exhibition at the Pompidou center few months ago, describes in a somewhat simple, accessible way the idea of NON-standard:

"Non-standard mathematics as defined by Abraham Robinson (Non Standard Analysis, 1966) was a dramatic extension of the theories of infinitesimals of Poincarre and Leibnitz."

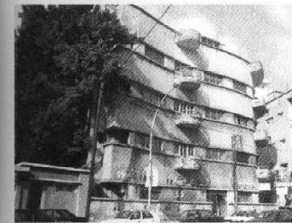
It was a revolution on the idea of continuum in Mathematics.

It gave birth to applications in Logics (Algorithmic, Artificial Intelligence), as well as in morphogenetics (formal hermeneutics, fractals and catastrophe theories).

Numerical tools that combine the continuum of logics with the continuum of morphogenetics carry us from the world of interpretation (natural forms), to that of creation.

Non-standard Architecture does not use numerics as a tool for representation, nor does it confine architecture to a spatial domain or even to abstract typological domains. The series of metaphors (virtual world, hyper-space, cyberspace...), that attempts to define numerics as a technological tool that allows us to create a spatial alternative is abandoned.

The effective use of non-standard production finds its foundations in the applications of the principles of theoretical continuum (as in



math), but also effective continuum (as in language and tools)."

Postmodernism, Neo-modernism, Regional Criticism
Deconstructivism, Minimalism, etc...

Since the Werkbund, the modernist position towards the redefinition of the industrial production of architecture has not been addressed; the critique was limited to issues of form and typology. No alternative to the logic of industrialization of architecture has been proposed by any of these movements.

The Trojan horse is already inside the city. One possibility would be to follow the very historical precedent of the theoretical response to industrial revolution the result of which was simply the birth of "the engineer" thus stripping the notorious art of building from one of its characteristics, i.e. "firmness"

Generating the form/structure clash, still *vivid in education...*

Another possibility would be to learn from the other historical precedent, i.e. the reaction to the issue of function targeting "utility" thus creating another partner "the planner": The Form/Function question arises.

My own experience during the last decade this question has rarely been addressed. New tools are automatically classified in the file of "technology", therefore disdained as of no theoretical interest. In some cases we are still at the level "computer drawings versus vibrating pens". In the best cases some pioneers are attempting to define the numeric domain as a technical mean to create a spatial alternative using abandoned metaphors as "hyper-space and virtual reality... Thus addressing Norberg-Schulz's notion of "whole", rather than accepting Venturi's condition of its impossibility.

The implementation and the operation of the principle of continuity, theoretical on one hand (mathematical continuum) and effective on the other (the language/tool unity) will modify the way we think and *debate*. The impact of random thinking on ideas acquisition, processing and dissemination of ideas in comparison to the limitation of traditional linear thinking has not yet been seriously addressed.

What is seen in the real world is completely different. Contextual pressure and ever evolving demands challenge the available means and accepted processes. New realities

are apprehended and interacted with without a-priories, thus allowing the re-definition, creation and integration of ways and means in the re-organization of *knowledge transmission*.

Practice, being the iceberg that points out of the quiet ocean of knowledge, is characterized by *what you see is what you get*. Practice will take advantage of any means or skills available, regardless of any consideration. Educational resistance to new paradigms will probably continue the reductive process of what should be taught, avoiding to address the issues, thus producing by default a new marketable skill (CAD operators). The hope is that this time, we feel the urgency "to accept our new status of explorers faced with the unknown; we are about to venture into a century where the previously delineated paths can no longer be extended" (Frederic Migayrou) rather than be satisfied with what would be left to be talked about.

In conclusion one hopes that academics and professionals will work closer to define a flexible and appropriate "interface" that would secure a constructive dialogue between the present understanding of 'theory as *intellectual endeavor*' inside the discourse of architectural education "and "theory as *thinking instrument*" in the "practice of architecture".



Charles Meyer

At Home

It is nowadays more and more difficult to recognize architecture as an entity, its main attributes. We know that since the end of the Second World War, architecture has suffered a particular and sharp identity crisis. From the early 50' when architects were still in the shade of the evangelists of the modern movement, believing fervently in mottos such as *form follows function* until the mid-60 where architecture almost grabbed sociology, hoping to find a credible answer to much broader problems. In the 70's, semiotics invaded the realm of architecture, trying also to find a *system* through this device that would give satisfactory answers. The 80' rediscovered a kind of classicism through *postmodernism*, reflecting the reinforcement of conservative political power on one side, but also the fairly deep confusion in which architecture seemed to be confined. In the 90's, architecture witnessed the emergence of so called deconstructive architecture often characterized by fragmented structures, but also the emergence of compact architecture. During that period another tendency developed in relationship to the two former, with reappropriation of materials as an intrinsic device to elaborate the formative strategy of an architectural process. Materials almost speak by themselves, again almost self referentially. Swiss architects such as Peter Zumthor or Herzog and de Meuron adopted this way of understanding architecture successfully. Particularly through this span of time, it seems that architecture is still finding it difficult to gain trust by its inherent attributes and has often been searching the justification of its existence outside the realm of architecture, living a split life. We can often observe it in the way houses are built, a kind of atomization between design and construction, which often evokes a sense of any whereness, missing the very specific localization, a sense of foreignness to itself and maybe also a sense of exile, dissolving the sense of gravity in its dual senses.

But how did architecture end up in this condition in those last decades and finally what are the mere attributes of architecture?

The notion of exile, in the large sense, as mentioned above, could be a path to try to understand this situation. It is very possible that one of the main attributes of modernity is exile,

both geographically and socially. The simultaneous development of transportation means and deep structural changes that allowed a fundamental atomization of the family contributed to this sense of strangeness to ourselves and to the land. As Edward Said quotes in his *Reflections on Exile*:

Exiles feel an urgent need to reconstitute their broken lives usually by choosing to see themselves as part of a triumphant ideology or a restored people.

The opposite of exile is obviously to belong and to be rooted as Simone Weil expressed it 60 years ago:

To be rooted is perhaps the most important and least recognized need of the human soul.

The fading sense of awareness of the very specific localization through the act of building in this case, has maybe older philosophical origins too, as the philosopher Jonathan Sacks points out intuitively:

According to Plato's parable of the cave in the Republic, the world we see, in which we move and live, is a mere play of shadows. The true essence of things is not matter, but forms, ideas, not their concrete embodiment in the world of the senses. It is a wondrous dream, that of Plato, that has never ceased to appeal to his philosophical and religious heirs: the dream of reason, order set against the chaos of life and eternity beyond the here and now. Its single most powerful idea is that truth-reality, the essence of things, is universal. How could it be otherwise. What is true is true for everyone at all times, and so the more universal a culture is, the closer to truth it comes. Is that not, after all, how we grow to maturity as individuals? We begin, in childhood, by being attached to our immediate family. Then, as our exposure to the world widens, we come successively to embrace friends, neighbors, the community, society and eventually all mankind. So it is with civilization itself. The history of homosapiens is precisely the move from small, roving bands to tribes, city states, nations and ultimately, if not yet global governance. So particularity – the world of senses and the passions – is the source of conflict, prejudice and war; universality is the realm of truth, harmony and peace. The move from primitive to sophisticated, parochial to cosmopolitan, local to global, is the journey from particular attachments to universal reasons.

It leads to the belief that there is only one truth about the essentials of the human condition and it holds true for all people at all times. If I am right, you are wrong. If what I believe is the truth, then your belief, which differs of mine, must be an error from which you must be converted, cured

and saved. From this flowed some of the great crimes of history, some under religious auspices, others – the French and Russian revolutions, under the banner of secular philosophies, but both under the enchantment of Plato's ghost.

Plato's assertion of the universality of truth is valid when applied to science and the description of what is. It is invalid when applied to ethics, spirituality and our sense of what ought to be. There is a difference between physis and nomos, description and prescription, nature and culture. Cultures are like languages. The world they describe is the same but the ways they do so are almost infinitely varied. Each language is the product of a specific community and its history, its shared experiences and sensibilities. There is no universal language, concretely speaking. There is no way we can speak, communicate or even think without placing ourselves within the constraints of a particular language whose contours were shaped by hundred of speakers, storytellers, artists and visionaries who came before us, whose legacy we inherit and of whose story we become a part. So we cannot place ourselves outside the particularities of language to arrive to a truth, a way of understanding and responding to the world that applies to everyone at all times.

Those thoughts have a special weight when we know that one of the drivers of globalization, the sixth universal order after ancient Greece, ancient Rome, medieval Christianity, Islam and the Enlightenment, is being the first one to be driven not by a set of ideas but by a series of institutions, among them the market, the media, the multinational corporations and the Internet. The proliferation of channels of communication – e-mail, chat groups, internet on-line journal and the thousand of cables and satellites televisions channels mean basically that we no longer broadcast. We narrow cast. Today we can target those who agree with us and screen out the voice of dissent. It is also maybe a way to react to the fact that until very recently, most people for most of their lives were surrounded by others with whom they shared a faith, a tradition, a way of life, a set of ritual and narratives of memory and hope. Under such circumstances it was possible to believe that our truth was the only truth, our way the only way. Outsiders were few, dissidents fewer still. That is not the situation today. We live in the conscious presence of difference. In the street, at work and on the television screen we constantly encounter cultures whose ideas and ideals are unlike ours. That can be experienced as a profound threat to

identity and seems to lead to an age of politics of identity, the former orders dominated by the politics of ideology. Those universal orders brought inestimable gifts to the world, but they all contributed to diminish difference.

The neo-structuralist philosopher Peter Sloterdijk points out in a similar way this issue mentioning that

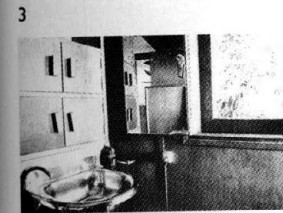
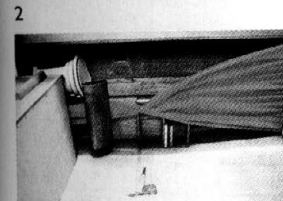
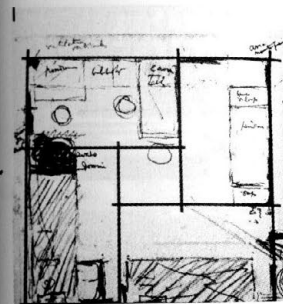
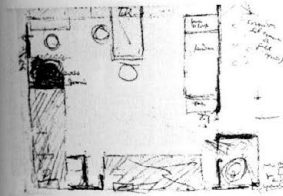
The dangerous sense that Plato gives in the *Politic* concerns the blind point of all pedagogies and politics highly developed, is the actual inequality of human beings in front of power given by knowledge. In the dialogue of the *Politic*, Plato develops the preamble of an anthropo-technique politic. In this discipline, we don't only pay attention on taming herds that tame themselves already, but most of all to focus on a new systematic breeding of humans beings close of the primitive model, the most dignified guard and breeder remaining the sage who has the most vivid memories of the best of celestial visions. Without the ideal of the sage, the care of domestication of man by man remains a worthless passion.

All those reflexions strongly suggest a more balanced relation between universalism and the particular, revealing also the dignity of difference, as Jonathan Sacks elegantly defines it. By which means? A fragment of answer could be articulated in a conference that Elie Haddad and myself gave a few years ago, trying to identify what is the current meaning that tradition could held in the present situation in architecture:

The lucid interpretation of tradition necessitates an examination of the deeper levels of the architectural traditions, where atmosphere, memory and imagination fuse together and reveal the formative principle of a work. It may allow us also to perceive the delicate equilibrium existing between two notions apparently antagonistic, permanency and evolution, unveiling the deep and intimate relation existing between identity and tradition.

This last point leads to the former question of this presentation: what are the mere attributes of architecture and how to reveal them?

It should be clear that architecture is definitely not a building, but the spirit that evokes comfort and protection revealed in its most eloquent way through the act of building by human beings, but not exclusive: clothes, food, inherit also all the characteristics of architecture: comfort and protection of course, but also structure, construction, proportions, texture, context, public/private, etc... In fact architecture is



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contributing to give shape compassionately to the scenery in many aspects of life.

But is it possible to teach architecture? I hardly believe so for simple and complex reasons. First of all it is impossible to teach a spirit, teaching is a process reduced and composed mainly of two aspects: broadcasting knowledge and appropriating it. Paradoxally our highly developed media tend to enhance this Pavlovian way of considering knowledge. This process lacks a crucial issue that the Swiss architect Peter Zumthor insightfully pointed out in a recent interview:

The sphere of emotions is much larger, more spacious than intellect, the latter is a line for me.

In other words, the by-product broadcasting and appropriating knowledge misses crucial elements that require to be integrated in conveying architecture.

Broadcasting knowledge of course is a necessity, but also intimately linked to the latter is to develop the recognition of knowledge, leading to familiarity with it and only then the process of appropriation may take shape and place. At this moment, appropriation acquires a totally different meaning, highlighted by emotional intelligence conveyed by recognizing and familiarity. The following four steps that are knowledge, recognizing, familiarity and appropriation enable us to perceive more easily the sense of inhabiting and being inhabited, the very mere sense of home in some ways. Those four steps could be reunited through a single word: initiation, fairly different from teaching. But integrating emotional intelligence requires often a different pattern wave of time from intellect and cannot develop without the presence of an *atmosphere*. Henceforth architecture requires to be conveyed through initiation and this implies to integrate atmosphere not yet related to space and time but possessing the *footprint of a presence*, not formally discernable but often conscient. The next crucial element to understand is the notion of archetype or the basic association to which we are receptive, it is the first formal statement anchored in space and time. The following step refers to the type, which is the fundamental architectural organization and finally the architectural elaboration which deals with more generic knowledge such as technique, proportions, light, etc...

At that moment it is possible to perceive architecture as an undivided and coherent entity, irreducible, with no *details*, liv-

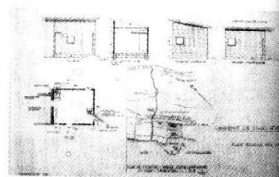
ing by its own, allowing to enter but also to irradiate from its own natural order, and not considered as a mere sum of a checklist. At this moment also, it maybe easier to sense what Sacks means by language, the verbal conveyor of irreducible existence and sense, particularly when developed through the art of conversation, both locally and universal.

Through this perspective the notion of *progress* at all cost, inventiveness, creativeness could be tempered also and permit to focus in an easier way simply on what is...different, always present, individually and collectively.

I would like to present some examples of buildings that evoke to some extent this sense of homeness.

First of all, a well known house realized by Le Corbusier in the beginning of the fifties for his own leisure use in the South of France. In this case, as usually with Le Corbusier's compulsive need to universalize his architectural investigations, he projected this house of 3.66 x 3.66 meters [Fig. 1] with the intent to expand it later. Six architects including Jean Prouve developed the concept of this house in six months. In this case, three issues seem particularly interesting and are linked together: obviously it is an absolute manifesto of the Modulor at the domestic scale, the house measures 3.66 meters, a multiple of 2.26 its canonic dimension [Fig. 2], of course the size of the beds [Fig. 3] and all the pieces of furniture [Fig. 4] are also in ratio with the Modulor, with a *coiling space* [Fig. 5] in the center of this room. Secondly, the intent to respect the free plan which means to study individually all the components of this house: beds, table, cupboard, sink, etc in their dimensions, shape, materials and to assemble them again in space, the context or the site in some sort. Finally the most strange and moving issue of this house is maybe the choice of the material for the skin.

In the first drawings Le Corbusier projected in a modern way horizontal steel planks [Fig. 6], the final result is horizontal planks, but cut in rough wood, evoking in a Rousseauist way, the humble hut of the noble savage [Fig. 7], as if the the interior spatial richness should remain private [Fig. 8]. In this project the last family house built in La Plata by Le Corbusier in the 50's for a famous Argentinian surgeon Dr Currutchet, the intense dedication to settle took shape particularly urbanistically. Le Corbusier never saw the site nor surveyed the construction, receiving only those two photos of the site and the site plan by the client when the contract was agreed upon [Fig. 9 & 10]; and yet, if we observe in this perspective study, the will to set, to match, to fit and inhabit very strongly the context [Fig. 11]. Through those photographs, his partners patiently rebuilt the nineteenth century house with its clas-



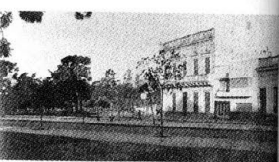
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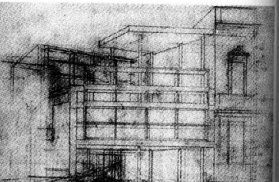
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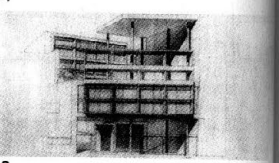
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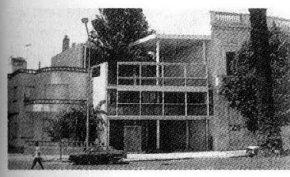
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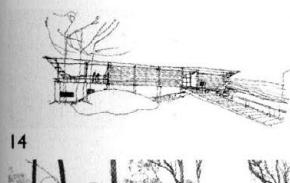
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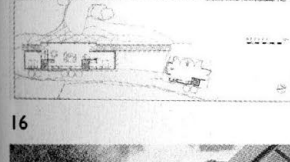
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sical language, trying to recognize a scale, a measure that acknowledges the prevailing atmosphere of a built context, without negating the Corbusean language and scale, the roof of the terrace in relation with the upper cornice on the right, the articulation of the the left side with the curve of the 1930 house [Fig. 12], but especially [Fig. 13] how the scale of the void delimited by the canopy of the terrace enables the house to vibrate by its own temper and yet sensing the scale of the neighboring buildings.

The third and last example refers to a family house built in 1996 by Glen Murcutt in the Australian outback, the Simpson-Lee house. This building epitomizes to some extent the deep relation that Murcutt has with nature, transmitted mainly through his long and deep relation with local Aborigines. Their vision of nature overlaps the notion of home and embodies a characteristic cosmic power transmitted mainly through dreams, their home. One of his first sketches describes [Fig. 14] clearly the structural value of this house with its vertical structure almost the same size as the trees in the foreground. The different entities [Fig. 15 & 16], composed of one main building and a guesthouse separated by a water pond, follow the contour line and remind us also of the irreducible topographic presence of the site.

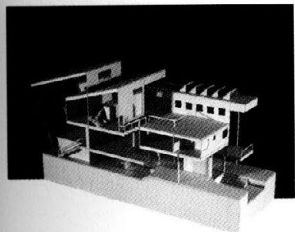
The thinness of the roof dialoguing with the fragile tree leaves as well as the scale and modenature of the horizontal tin pannels [Fig. 17], the overall evokes materially nature endlessly changing and yet the strong horizontal [Fig. 18] line of the overall anchors the building in the site, but unharmpfully. The floor, the handrail, the light passing through the shutters present an order and a scale that intends to communicate with the place's attributes, evoking lucidly the multiple meanings of the place.

Knowledge and atmosphere, when activated by emotional intelligence, enable us to open the way of dwelling. I am grateful that architecture allowed me to see through its eyes.

Learning Practice(s)

Introduction

Processes involved in learning about architecture are fundamentally different from processes associated with practice. Unfortunately many educational institutions in the Arab world fail to make the distinction and adopt approaches that are more akin to vocational training. Simulating so-called "office environments" often results in superficial approaches to design problems. A particularly common, and self-defeating approach includes providing students with a project program, asking them to do research and then develop a concept. Vague notions of what constitutes discipline-specific definitions of terms like research and concept have resulted in the object-oriented projects produced by many schools and their graduates. This continues to have dire consequences for the quality of the built environment.



Architectural education in the Arab world must be reoriented to consider how students gain the knowledge and skills required for a critical approach to practice. The approach to design studio teaching described in this paper seeks to develop analytical skills and synthetic design processes. The studio employs exemplary built projects for analytical exercises, which provides an immediate connection to both practical concerns and conceptual design strategies. It also allows students to develop tools and methodologies for attaining an understanding of architecture that transcends glossy magazine photographs and the jargon-laden text that often accompanies them. Selecting projects that have direct relevance to studio work provides a frame of reference and encourages discussions regarding the range of concerns that define a project. The analyses build confidence as students develop the necessary tools to deal with the challenges that a practitioner faces. And, perhaps more importantly, the analyses allow them to see how a critical approach to practice results from a synthesis of practical concerns and conceptual design strategies.

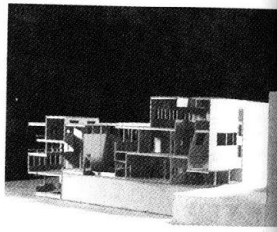
The *a la manière* method that characterized architectural education at the *École des Beaux Arts* and the pattern books

which served as sources for 19th and early 20th century practice provided definitive models that were subject to limited interpretation. In contrast, the analyses projects do not provide "answers" to questions regarding style, but rather focus questions on a range of concerns that are fundamental to architectural practice. Employing exemplary projects in studios assists in demonstrating that highly regarded practitioners aspire to a synthesis of program/use requirements, conceptual ideas, structural solutions and constructional systems. It also provides a foundation for making connections between future design studios and courses in the areas of building technology, professional practice and history/theory.

Theoretical constructs

The first body of knowledge that should be addressed in beginning design education is the existing knowledge that a student possesses, which is usually expressed in pre-conceptions or *a priori* assumptions resulting from experience that has not yet been reflected upon. While students must learn to rely on knowledge gained through sense perception and experience, they must also be challenged to reflect upon this experience in order to establish its relevance to a process of design.

Ancient Greek thought originally linked knowledge with sense perception, especially with the visual. *Theoria* refers primarily to sight and spectacles, and then metaphorically to reflection or speculation. A component of reflection is recollection or memory. The Muses of ancient Greek literature were the daughters of Zeus and Mnemosyne, the personification of memory. The Muses were not only the source of inspiration and skill; Homer asked them to grant him knowledge of the past, which he contrasted with ignorance. Memory is essential for knowledge; memory is also much more than residue accumulated unconsciously. Marcel Detienne has noted that long before Hesiod there were three Muses, Meleté, Mnémé, and Aoidé. According to Detienne, "Each name referred to an essential aspect of the poetic function. *Meleté* designated the discipline indispensable to any bardic apprentice: attention, concentration and mental exercise. *Mnémé* names the psychological function enabling recitation and improvisation. *Aoidé* is the product the epic recitation, the complete poem, the end result of *meleté* and *mnémé*." (Detienne: 1999; 41) The focused discipline and the



psychological functions enabling improvisation are as relevant for the contemporary architectural student as for the bardic apprentice.

Jacques Brunschwig elegantly articulated the relation between memory and ways of knowing as follows: "In human beings, feeling is sedimented in memory, and this process itself gives rise to experience (in the sense in which one speaks of a "person of experience," someone who has seen and retained a great deal). When experience is reflected, when it is formulated in a universal way, when it grasps the causes of its own successes, it serves as a basis for practical knowledge (*techne*) and for theoretical science (*episteme*)". (Brunschwig: 1999; 41)

One of the dangers inherent in architectural education is that the focus on transmitting discipline-specific knowledge may inadvertently devalue primary experience that is manifest in the memory of students. As Brunschwig notes, there is a connection between memory, experience, knowledge and theory. Appropriately conceived, introductions to architecture have the possibility of mediating practical knowledge and theoretical constructs in a manner that instills an analytical approach to information/knowledge and fosters the development synthetic strategies for design. The process of reflection that this requires is of value regardless of whether the knowledge is newly discovered or pre-existing in the form of memory.

From the pre-existing to the practical

House, gallery, library. These labels are often dangerous and threaten to end processes of discovery. Rather than an investigation into the nature of spaces and the activities they contain, design studio instructors are apt to provide a clearly defined program with space calculations; project formulations such as this can easily reduce architecture to a rudimentary exercise in space planning.

Although the studio process described below concludes with the design of a dwelling, students have hopefully forgotten that it was a residence that they have been engaged in designing; this process of forgetting is necessary for remembering. This does not imply that students should suspend the accumulated social, cultural and sensory experiences related to notions of "home", but rather that they should develop an

ability to reflect on and remember how built form has conditioned those experiences.

When asked to design a "bedroom", beginning students will almost always rely on their own bedroom as the model. There is certainly nothing wrong with this, unless of course it is an *unconscious* selection of that which is known and familiar at the expense of an exploration of other possibilities.

The introductory-level studio discussed in this paper begins in the bedroom, or rather the room that students sleep in. This distinction is important and informs the statement that students should not be asked to design a house, or a gallery, or a library. A process of labeling with commonly associated names can inhibit investigation, as it is never "a" house, "a" gallery, "a" library; it is "the" house (their own), "the" gallery (the one they visited in London over the summer, you know the big one by that square), "the" library (most likely the university library).

Although students have lived in their houses, visited that big gallery, or spent some time in the library, their knowledge of these spaces remain something akin to an *a priori* assumption. Empiricists like Locke and Hume would argue that *a priori* knowledge, or knowledge before the fact or prior to direct experience, is not possible and that all knowledge is essentially a *posteriori* (i.e. gained through direct experience and observation). Experience and observation have been devalued in the primary and secondary education of many students entering architectural education, which has been based on the premise that *a priori* knowledge does indeed exist and is all that exists; one needs only to employ memory without reflection.

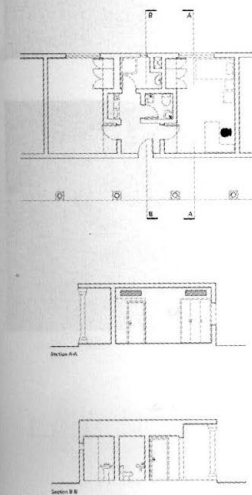
John Dewey has written that "Our progress in genuine knowledge always consists in part of the discovery of something not understood in what had previously been taken for granted as plain, obvious, matter-of-course, and in part in the use of meanings that are directly grasped without question, as instruments for getting hold of obscure, doubtful, and perplexing meanings. No object is so familiar, so obvious, so commonplace that it may not unexpectedly present, in a novel situation, some problem, and thus arouse reflection in order to understand it." (Dewey: 1991; 120) Reflection requires maintaining an awareness that would allow one to remember. One of the goals of the studio is reflection on experience in order to construct (or rather re-construct) a

body of knowledge based on first-hand experience of the lived world. Although maintained as memory, the process of reflection recasts the stored information as "new" knowledge that can inform practical activity.

André Gide has written that if he had to teach a child geography, he would begin with the plan of his student's garden. He proposed that first one should begin with a limited space, "a horizon that his own eyes can see"; then he advised projecting the student's curiosity beyond the limit of his vision. The process that Gide advocates is of great value for architecture as well as geography. To begin with something familiar, like the garden, and to develop a process that allows us to look it anew is the first step in challenging the preconceptions regarding space and form. If Gide would choose the garden for geography, I would opt for starting with the room that a student sleeps in for architecture. For Bachelard "The house, the bedroom, the garret in which we were alone, furnished the framework for an interminable dream, one that poetry alone, through the creation of a poetic work, could succeed in achieving completely. If we give their function of shelter for dreams to all these places of retreat, we may say, as I pointed out in an earlier work, that there exists for each one of us an oneiric house, a house of dream memory, that is lost in the shadow of a beyond of the real past." (Bachelard: 1994; 15) For the student, the bedroom houses memories and is so familiar that it has not been reflected upon. It is the space of return and therefore its details have not been consciously considered and committed to memory.

The first step is to ask students to reconsider their bedrooms in terms of the basic concept of measure. One of the fundamentals for a beginning architecture student is measure; the ability to observe and record a physical reality that has been present but not necessarily made quantifiable is an important tool. Derived from the Latin *mens-*, measure is the etymological core of the terms that are essential for the beginning design student: geometry, symmetry, asymmetry, meter, diameter, dimension, etc.

After the initial measurements are recorded, students represent their rooms using the basic conventions of plan, section and elevation [Fig. 1]. An introduction of conventional means of representation initiates a studio discussion of what it means to represent, or re-present, space in a two-dimensional drawing. The notion that the drawing represents a

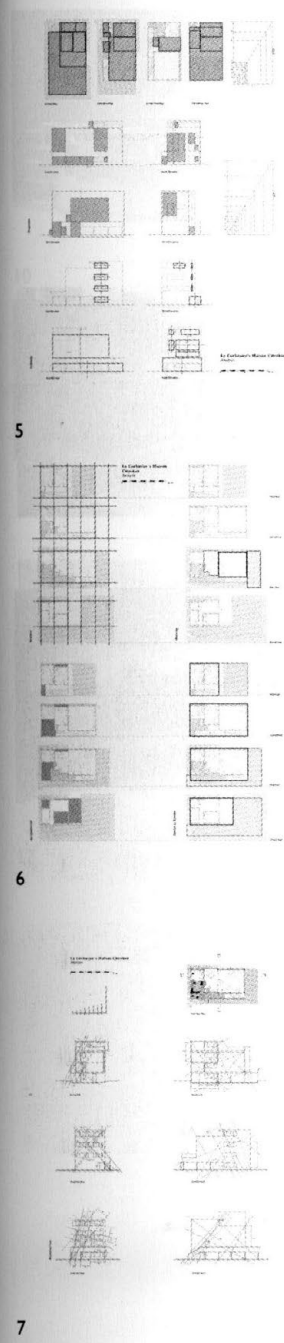
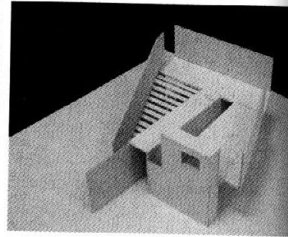
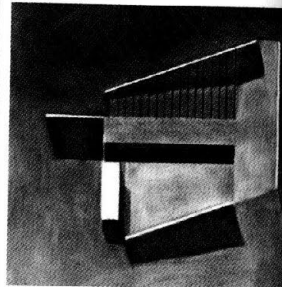
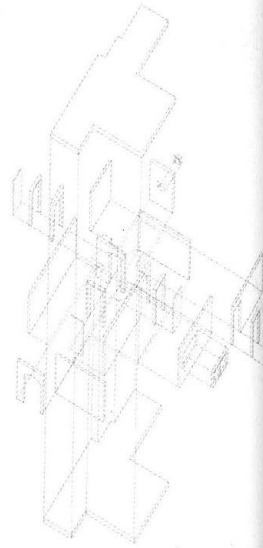


three-dimensional space that is experienced in time is complex and requires a great deal of conversation. Once the idea is established that the plan and section are two-dimensional "slices" of space that can serve to clarify spatial relationships, students move to three-dimensional representations using projected drawings that are somewhat closer to their experience of the space (at least it is recognizable as a space). The exploded axonometric is employed because it challenges notions that a three-dimensional drawing always represents "reality" (or rather represents what the students expect to see). This means of representation also serves to isolate individual elements (floor, wall, ceiling) in order to initiate a discussion of their role as space-defining elements [Fig. 2]. Freeing the elements from their original role as horizontal floors or ceilings or vertical walls is an exercise in abstraction and serves to foster debate regarding what constitutes the most basic of architectural elements, enclosure.

This process challenges the memory of the student by making the familiar strange. The isolated elements become the material for the next iteration: a structure that contains spaces for entering, reading alone, talking, listening, viewing the landscape, sitting on the grass, and exiting [Fig. 3-4]. In addition to the elements from their room (which can be cut to yield a series of smaller planes), students are given 21 steps and a quote from landscape architect Garret Eckbo:

"I spoke of three-dimensional space formation as the ultimate overall goal of the arrangement of natural and structural materials on the land; of the use of materials in shaping space on the basis of their own innate properties and characteristics, rather than by manipulation into preconceived forms that were unnatural to them". (Eckbo: 1993; 211)

This brings up the issue of shape vs. form that is fundamental to a discussion of how to re-orient students to consider the range of issues central to architecture. For the purposes of this discussion, I rely on Louis Kahn's pronouncement that "form is a realization of inseparable components". (Kahn: 1991; 288) Unlike shape, form results from the integration of a range of issues: space, structure, light, material, etc. These issues are investigated in the reconfiguration of elements derived from the elements forming the student's bedroom. This exercise represents a first attempt at constructing space that is intended to accommodate particular activities. The results of this investigation into the potential of recycled elements initiates a discussion of issues fundamental to the



architecture: circulation, route, movement, scale, relative dimensions of spaces, relation between the senses and space (i.e. what one sees, hears, touches). Students are familiar with these issues through their past experience, but they remain in the realm of memory until re-presented as "new" knowledge.

The second stage of the studio introduces a range of analytical tools in order to begin a discussion regarding how the themes explored in the initial project can lead to design strategies employed in the built environment. This activity provides another level of historical knowledge that transcends the name/date/location approach that characterizes many undergraduate-level history courses.

Students are required to redraw and analyze residential-scale works. The request to redraw is based on the assumption that one gains a more comprehensive understanding of the building through the process of drawing; one must re-cover construction lines and relationships that may not be immediately visible. This process raises questions associated with the two-dimensional representation of three-dimensional space. Students investigate how the line is employed as a fundamental tool to describe space. Reconstructed drawings become the basis for analyses of approaches to circulation routes, servant/served space, public/private space, proportion, geometry, etc. [Fig. 5-7]. An analytical approach to existing work provides students with a knowledge base and new tools with which to look at the built environment.

Abstraction is employed to move away from the concrete, complex reality of built form in order to understand the constituent aspects of an overall design strategy. It is a process of learning through *undoing*, through reconstructing the reasoning that guided decisions regarding space, form, structure, etc. The analytical processes and the fundamental aspects of space-making explored in the initial projects are expected to be synthesized in the final studio project: a dwelling space on an urban infill site.

Information regarding the project is conveyed through a series of letters from "clients" that describe the kinds of spaces that they require. No program is provided; students are expected to derive information from the letters and develop a program. As in the initial studio project, students are required to rely on their abilities to interpret what it means to accommodate a specific activity; the question is not

how one designs a bedroom, but rather how one sleeps. What is significant about sleeping and how do we design a space specific for the activity (or non-activity)? The first step is to challenge *a priori* assumptions and rely on direct experience and observation, to rethink the process associated with preparing to sleep.

How do I start? The cry of every beginning student of architecture. Students have heard much talk about the elusive "design concept" and many believe that this is a necessary prerequisite for initiating work. The notion of *thinking through doing* or *gaining knowledge through making* is foreign for students and it takes significant work to convince them that an idea is not a necessary prerequisite for action. Paul Feyerabend has noted that

"First, we have an idea, or a problem, then we act, i.e. we either speak, or build, or destroy. Yet this is certainly not the way in which small children develop... Creation of a thing, and creation plus full understanding of a correct idea of a thing, are very often parts of one and the same indivisible process and cannot be separated without bringing the process to a stop". (Feyerabend: 1988; 17)

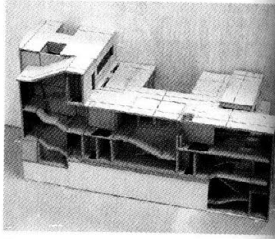
The synthetic approach that Feyerabend recounts represents an ideal that the design studio aspires to, especially the notion that it is not only creation but creation combined with complete understanding of "a correct idea of a thing". [Fig. 8-9]

The ideas, or "concepts", develop from the process and are not fixed and immutable; these ideas are subject to testing through drawing and modeling and are subject to revision, transformation and refinement. Another related preconception results from the belief that a "concept" is nothing more than an image of something else. Students believe that they must first determine what their building "looks like" and then they can "design it". Equating concept with the literal manifestation of an image is basic misconception hindering the development of conceptual ideas that can guide the design process.

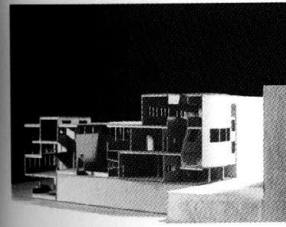
A Chinese proverb states "To hear is to forget, to see is to remember, to do is to understand". The "doing" in the architecture studio is constituted in models and drawings. The advent of digital technology and the modeling features of computer-aided design software has liberative potential; however, it often obscures attempts to teach and learn architecture.



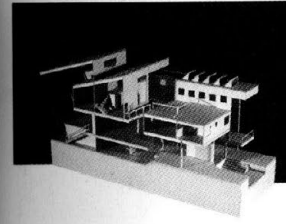
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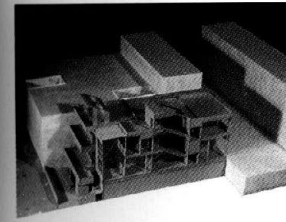
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Technology is not a panacea; computers do not distinguish between good and bad.

While architectural education must transmit the discipline-specific knowledge necessary for professional practice, it should also foster the development of approaches to information that will allow "new knowledge" to be analyzed, evaluated and integrated into the design process. An introductory-level studio that challenges *a priori* assumptions in order to establish the validity of memory and experience that has been reflected upon can provide the foundation for dealing with the demands of "new knowledge" in upper-level courses and future practical activities. [Fig. 10-12]

Conclusion

An earlier statement referred to forgetting as a precondition for remembering. Architecture students are the quite capable of forgetting, but the problem is that little is remembered. One of the most difficult challenges facing architectural education is instilling a process that allows students to distinguish between a preconception and direct sensory experience, to confront critical questions associated with *a priori* assumptions and *a posteriori* knowledge gained through direct experience and observation.

Students must be equipped with the means to observe and analyze the physical environment in order to determine the fundamental qualities of space and form. It is incumbent on architectural education to introduce and cultivate the importance of an analytical approach to the built environment and a synthetic approach to design. The focus on knowledge gained through experience and observation will necessarily challenge preconceptions regarding the built environment. Preconceptions have resulted from a failure to critically consider the built environment (and this is expected from students entering university).

The connections between memory, experience, knowledge and theory conceptualized in notions of *techné* and *epistémé* have the potential for informing architectural education. The introduction to architecture is critical and should mediate practical knowledge and theoretical constructs in a manner that instills an analytical approach to information/knowledge and fosters the development synthetic strategies for design.

The process of reflection that this requires is of value regardless of whether the knowledge is newly discovered or pre-existing in the form of memory.

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Christos Hadjichristos

An epistemological inquiry

Introduction

Epistemology is the study of the nature and limits of knowledge. The subject of an epistemological inquiry in architecture is not its relationship with science but the nature and limits of the knowledge found in the field. Religion claims knowledge of the ultimate and absolute truth, while science chases pieces of knowledge through research. What does architecture do? It could be said that, as an activity, architecture has been identified as such much earlier than many other human endeavours which are considered by some to have reached a more mature stage as disciplines. The purpose of this paper is to attempt a deeper understanding of the nature of architectural knowledge which will hopefully allow for a better assessment of such a claim.

Information about a certain kind of knowledge, assuming that different types or kinds of knowledge do exist, could perhaps be obtained by considering its nature or characteristics, by examining the means of its production, the way it is used, the methods of testing its validity and the manner it is shared by those who possess it or those who are interested in possessing it. Consequently, except for those rare cases, various groups of people have different relationships with the knowledge found in a field. First of all, there are those who experience the effects of applying the knowledge. Others may have the knowledge but do not use it either because they choose not to, or because they don't know how to. Then there are the people who are involved in producing the knowledge and those who reflect on the whole arrangement and on the means of knowledge production themselves.

A useful if not necessary distinction to be made is that between knowledge and skill. A piece of knowledge may be given to anyone but may be useless if the skill or potential or even interest to use it are not present, while a skill is the ability to perform a certain task which, if not perfectly repetitive, could be seen as the ability to process some kind of information or knowledge. The efficient application of the skill depends on the provision of the necessary pieces of knowledge

or information. On the other hand, even if the necessary information is there, the skill may not be adequately developed. So, an epistemological inquiry in architecture should investigate the skill, the knowledge used in using the skill, as well as the relationship between the nature of the skill and the knowledge it uses. A discussion on the relationship between theory, research and practice cannot but facilitate such an undertaking.

The nature of architectural theories

Architectural theories have been characterised by many as polemic, ideological, and normative rather than analytic, and have been accused for having no impact on practice which they follow rather than guide. It has also been argued that architectural theory may not be theory at all but more part of practice.

Etymologically the term theory comes from the Greek word *teoria* which means 'I see' or 'observe', an act which implies a distance between the observer and the object. Seeing or observing a glass of water is an act and it may include an assessment of whether it is out of reach, full of water or other liquid, beautiful or whether it should be grasped and used, but this act is clearly different from the actual act of grabbing it, an act which is also quite different from accidentally knocking it down. In other words, the theoretical element related to the actions of an individual may be in the form of thoughts, assumptions, concepts which are infinitesimally small and are interchanged with praxis or practice which informs and is informed by them. Such may be the kind of theory used in many aspects of everyday life. Anthony Giddens calls this 'practical consciousness' with which agents can have a continuing theoretical understanding of their actions, one which is not based on any rigid logic, as discursive consciousness is, but on routinization (1981). Similarly, in a vernacular setting a builder has what Glassie (1975) calls 'architectural competence', a capacity or skill which is also a product of culture.

Clearly theory cannot come from nowhere but from the experience of previous practice or from experiencing the results of previous practice, from the exposure to other theory. Similarly, practice cannot come from nowhere but from some kind of thought process which allows the skill already

possessed by the architect to be adapted to the specific situation faced each time. The setup is thus more of a sequence which alternates between theory and practice with the one following the other in a continuous path. In such a setup then theory neither follows nor guides design. If theory is taken to just reflect what is happening in practice without itself having any impact on it, then any changes taking place are either due to accidents or due to the influence of other practices or theories from other areas. The other possibility is a mechanistic arrangement where there are no real agents but passive participants or ingredients, a view not easily defensible.

Everything which encourages a certain kind of attitude towards life contributes to cultural production (Bourdieu, 1984). Such is the act of drinking coffee, or the act of designing a house. The difference between the two acts mentioned may lie in the identity of the person who reflects on them; rather than the person who drinks coffee, it is a doctor, an anthropologist or a sociologist who is more likely to reflect more on what it means to have such a habit while it is the person performing the act, the architect himself/herself who will reflect more on the act of designing a house. In other words, the architect is part of the setup he/she is supposed to reflect on and may thus have to struggle to replace habitual with reflective thinking if indeed this is desired. Still, even Glassie's vernacular builder will provide a cause and effect narrative which accounts for how things are done, a construct which may not withstand rigorous analysis but a theoretical construct nonetheless. The inability to be logically argued may be taken to mean that such a theory is not good or even valid. But what is a good theory supposed to do? Rapoport argues that

...there is explanatory theory, which is based on research and supported by empirical data and which leads to understanding and prediction, and then there is "theory", which is really nothing more than opinion, ideology, and the like...the construction of explanatory theory cannot begin until there is sufficient empirical data to suggest directions and to constrain such theory construction. (1982: 241)

But even in science, the idea that a theory can be proven true and thus provide absolute knowledge has been replaced with a much more realistic and modest role. Science has long been considered by many as the safest method of arriving at 'true knowledge', a view challenged by

thinkers and researchers examining the philosophical and actual characteristics of the field. Acknowledging the problem with induction, Popper (1959) argued that a scientific theory cannot be proven to be true just by adding new evidence since it theoretically takes one extra experiment to falsify it. An irrefutable theory is simply not scientific. For him, science progresses by the creative leaps of individuals who put forward a hypothesis that speculates. Lakatos (1986) assumes what can be seen as a relativist approach to scientific theories since he finds that a number of different theories can be supported by a given data. He argues that science develops or changes by way of research programs and not individual theories. Each of these programs has a hard core of theories which are surrounded by a protective belt of supplementary theories. This periphery may eventually change thus influencing the centre which is comparatively more stable. In other words, it is not the substitution of one theory but a group of theories which brings change to a research program which may then influence other program as well. What is quite important for the subject of the present discussion is that he goes on to argue that a new theory should be given the benefit of the doubt in order to give it a chance to show its worth. He believes that the evolution of science is not so much directed by facts but mainly determined by the imagination of scientists.

A general assessment is that architectural theories are normative while scientific theories are analytic, with the latter seen more suited to guide practice. This either/or grouping of theories were challenged by Kuhn (1962) who argues that even in science, an established theory becomes normative for a period since scientists use it as a paradigm to carry on experiments without actually challenging its assumptions. These 'paradigms' have shortcomings which will eventually trigger new insights, bringing a revolution through which the paradigm shifts to a new way of looking at the subject matter, only until the next paradigm shift occurs. There are thus periods of normal science between scientific revolutions. Since the paradigm used is actually the way of thinking through the data, Kuhn argues that a paradigm cannot be rationally justified. He finds that using a paradigm implies a certain commitment which does not allow one to critically examine the assumptions inherent in it. Imagination is needed to exit one's own paradigm and objectively view its strengths and weaknesses from the outside.

Acknowledging the peculiar nature of architecture, Johnson (1994:13) suggests that normative theories should be judged according to their persuasive strength unlike positive theories which are judged according to their predictive strength. He argues that the ability to persuade may be due to the theory's resonance with the specific culture or because it manages to go deeper, reaching human elements which transcend the specific time and place. If prediction is replaced with persuasion and if paradigm is the sharing of a common conceptual framework which reproduces results, then the emergence of a style for instance may then be a sign of the existence of a paradigm. This may also explain the polemic character architectural theories take.

Still, an important issue arises; who is to be persuaded by architectural theories; the other experts in the field or the public? Johnson seems to imply the latter. But the way to persuade fellow experts is or should be different from the way one persuades the public not only because the former will use the theory while the latter will experience its effects but also because experts have, or should have a comparatively stronger ability to reflect on and evaluate the underlying assumptions and implications of what is presented to them. This distinction may help understand to some extent the accusation that architectural theories are ideological. A theory on advertising for instance will naturally address the experts of the field and it is those whom it will have to persuade, while an advertising concept is used by these experts to persuade the public. A scientific theory put forward is for the researchers and scientists to evaluate and not to persuade the public. Things are different in religion where the expert, the priest that is, accepts the theory as dogma and his job is to persuade the people, with logical arguments up to the point where a leap of faith is required. Is architecture closer to the setup in religion rather than to the one found in science? Is this the reason architects have been accused of not being able to distinguish polemic from theory? (Heath, 1991,18) The discussion is naturally led to the way architectural theories are ultimately evaluated. If such an undertaking is to be systematic in one manner or other, then it will be one form of architectural research or other.

Architectural research

So what is architectural research and when does or should take place and by whom should it be carried out? A comparatively distinct type of research, irrespective of whether it is considered to be strictly architectural, is the kind which contributes to the quality of the product by providing pieces of factual knowledge used in parts of the design process. Such is the research which provides technical information about the different physical aspects of buildings. Environment Behaviour Studies or EBS may also be seen to be of this kind.

Rapoport sees EBS as both humanistic and scientific while Johnson (1994) finds that 'EBS may have yielded a wealth of information about how people react in and to buildings that is as close to a 'scientific' knowledge base in architecture as we are likely to get' but expresses the following reservations: EBS assume that 'buildings offer cues above and beyond any taught behaviours yet so far there seems to be no such evidence; no product of such research developed into dictums or axioms for designers despite the underlying assumption that observations can be generalised; architects do not seem to use information obtained from EBS and; all design is experimental while the assumption that we can observe the past to predict the future implies a constancy in environment-behaviour relations which does not exist. (Johnson, 1994, 62)

One could see the above criticism as rather unfair in the sense that most architectural, as opposed to building research probably includes human perception as one of the parameters, and is consequently as unreliable as EBS. In fact, most architectural research is EBS in one way or another. Furthermore the problem of induction is a serious problem in science as well, yet scientific achievements cannot be denied. Rather than talking about phenomena as having constancy and predictability as if such qualities are either present or are not, perhaps a more realistic approach would be to have in mind the degree of such characteristics in phenomena while using information derived from them. Johnson also argues that design will always necessarily speculate regarding the outcome yet he does not seem to value what POE (post occupancy evaluation) can offer, even though, perhaps the only other chance for any kind of assessment of an architectural project, apart from the award system which does not judge the result on its actual impact on the public, is what history

will tell us, much much later. But, without underestimating the value of historical research, how can the observations regarding something recent be less relevant to the present from something in the past which may have survived for a number of reasons which are not always the right ones? Admittedly, there is danger in assuming that what has been observed in a project studied will necessarily be found to be the case elsewhere as well. But one thing that POE does teach the architect is humility by revealing that architectural determinism is an outdated notion. So, what are the reasons behind Johnson's blow below the belt? Is such an attitude regarding attempts to scientific research aspects of architecture shared by many? If yes, what are the reasons behind it? Rather than negative disposition, could it be more of a form of conservatism similar to that found in strong cultures?

Groat and Wang (2002) argue that design itself cannot be considered as research as such since the latter is "a fact-based activity" while design is 'a series of subjective commitments', but believe that research can aid the design process in many ways. They distinguish between 'design as research' and 'research about design' by arguing that

...we can make a distinction between design as research, which we hold to be at best a difficult conceptual union of all the mental faculties, and research about the design process. The former seeks to subsume a reality that is inherently nonpropositional (generative design as a mode of art production) under the domain of propositional activity (analytic research) which raises logical difficulties. The latter seeks, by well-defined propositional frameworks, to understand more deeply the processes involved in the nonpropositional process of design. There is no logical problem with this notion. (106)

While they do not support the idea of 'design as research' they argue that there may be ways design and research can enter into a symbiotic relationship where "episodic research" takes place within "generative design" and suggest models which attempt, in greater or lesser degrees, to critically reflect on what is happening in design and inform the act itself. These are: design as analysis and evaluation, design as action research, design as a learned skill, the generator/conjecture/analysis model, and design in collaboration (108). A proposal which has similarities with most of the just mentioned models is also presented by Donald Schon, who suggests that the architect should enter into a 'reflective contract' with the client, in which, among other things, 'he needs to reflect on the limits of what he knows and communicate this

process honestly to the client', while the client may "not agree to accept the practitioner's authority" but rather accept "to suspend disbelief in it" (Schon 1983, 295-299) Can the architect afford to do this though? What is basically at stake here is the architect's authority. The proposal can only be evaluated if the authority of the architect is first defined. If, for example, the architect's skill is to create a myth (Charles Jenks, 1969), would letting the client see it manufactured defeat the purpose? A priest may admit he doesn't know the answer to a specific problem but bypasses the difficulty by placing the responsibility to God by saying that 'God works in mysterious ways' or that 'God may be testing you now but will eventually show you the way' or simply that 'you should have faith and trust in God'. Can the architect refer to any such authority when deadlocks are encountered after he fully exposes the design process to someone who will most probably need a cause and effect reasoning to be persuaded that what the architect proposes is better than what he himself may have in mind? Is it even possible to take the client along a path in which the architect himself/herself cannot be fully reflective about? What if, like in religion, the authority of the designer begins exactly where neatness and logic stop? Will the client accept the architect's claims that from then on he/she, the designer that is, knows better? Clearly, for such an attempt to be successful it needs the right attitude not only from the client but from the architect as well. Such an attitude may require a quite dramatic shift in the way the designer sees his/her role in the design process, especially when it comes to dealing with aesthetics.

The practice of design

Design is by definition a creative activity not necessarily in the usually assumed sense which basically sees it as artistic expression but mainly because the initial givens contain many parameters which are indeterminately and dynamically inter-related. Consequently, the basic characteristic of design is the inability of the data or initial givens to determine a proposal. And while the quality and quantity of factual knowledge available to the architect has undoubtedly increased tremendously, many observe no corresponding improvement in the architectural schemes proposed. This could be due to a number of reasons; the initial givens have become more complex while the architect's skill has not developed accordingly, the factual information provided is irrelevant or simply

because factual information does not really help improve the quality of designs.

Hillier, Musgrove and O'Sullivan account for the mentioned phenomenon which they call 'applicability gap', by arguing that the wealth of knowledge or information available now does not easily become part of the 'pre-structuring' apparatus through which the designer processes information and comes up with a proposal (Hillier et al., 1972). This makes sense if this pre-structuring apparatus is not a logically structured framework but a product of a mechanism similar to what Giddens (1981) calls 'stucturation' and Bourdieu (1977) calls 'Habitus'. In other words, the apparatus under discussion is acquired through the designer's exposure or participation to some form of culture or other.

It has been argued that 'theory is the substitute for tradition' (Scott 1924:259-260), implying that the appearance of theory presumably in a discursive form automatically means that we have indeed left tradition. The question then is, have we indeed left tradition and replaced it with theory? It was and may still be considered as one of the targets of architectural education to erase what is considered as the restraining effect of culture on students in order to enable them to be more innovative or more efficient as designers. Yet, in light of what has been discussed, it could be argued that what has actually happened is the replacement of traditional or more societal culture with architectural culture which serves a similar role as its predecessor.

Could it be otherwise though? If the description of architectural design presented above is correct then the synthesis expected from the architect will, at one point or other in the design process, resort to the mechanisms culture itself uses to satisfy its own mission which could be similarly described as the, as efficient as possible, handling of discontinuities, contradictions and the absence of an all encompassing logical scheme.

Since architecture is predominantly about designing physical entities, aesthetics or the way things look, naturally offered itself as one such mechanism and has been considered as one of the main tools architects have traditionally used to give the impression that what is proposed has been purposefully and logically configured that way, even though, as already explained, the various parts or aspects contained in the proposal are not so efficiently or deterministically connected or

related, not because of any lack of competence but because of the complexity of the setup which inevitably only allows for a perfection that is iconic rather than actual. The specific mechanism though has many times become the end rather than the means though, admittedly producing quite interesting compositions but also allowing architecture to be criticised for dealing mainly with what seem as the superficialities of form, failing to address other, equally important if not more urgent issues (Markus 1993, Leach 1997).

As stated at the beginning, the purpose of this paper was to attempt a better understanding of the nature of architectural knowledge in order to evaluate the claim which finds architecture lacking in maturity as a discipline. What the present investigation seems to suggest though is that architecture has more of the characteristics of culture rather than those found in a discipline. So a number of questions present themselves.

.If architecture is indeed more of a culture, is it desirable or even more importantly, possible to strengthen those of its aspects that will make it shift towards becoming more of a discipline?

. If architecture is indeed more of a culture, how does it rate as such? Has it advanced in areas such as ethics, human rights, what are its prejudices and what is its relationship with other cultures? How does it face the challenges of today? Will it survive into the future or will it be consumed by its neighbours or invaders?

A quick and thus potentially unfair assessment is that architecture seems to lack the maturity of an advanced culture where religious fanaticism, prejudices and power imbalances have been counterbalanced by a well defined code of ethics that allows for pluralism and diversity, with a strong reflective ability to see itself within the broader context. As to whether it will successfully face the challenges of today and survive as a culture only the future can tell.

Architecture, being an activity carried out by humans for humans, could focus on increasing the humanness of individuals and society. Acknowledging the fragmented and illogical nature of human existence in dealing with the complexity their skill is called in to handle, it seems that architects are already beginning to adopt a more responsible attitude towards resources and are developing a stronger desire to

reveal potential choices or limitations rather than conceal, pacify or anaesthetise.

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Color and the Quiet Discourse

It all began when two people – independently – picked a book from their bookcase, and to my surprise opened at page 100 and showed me the quotation:

Color is the most ephemeral of everything. I refrain from color. The material has color; which is enough. Red brick is not red because it is red. It is red because it is fired clay. That is why I use it. It tells how it has come into being. Architecture is volume and light, darkness and light. My visions are black and white, as dreams are said to be.

I didn't ask why they wanted to show the quotation to me and how come they knew exactly where to find it. Both realized that the statement seems provocative to a person interested in color and painting. The quotation presents one of two answers to a question in the concluding part of the book. Earlier in the book, subtitled *Conversations on the architects work*, Lennart Holm, the author, has been interviewing three architects from his own generation, and four younger architects. The conversations aimed at "the vision and the troubleshooting in the work of architects". They are gathered for a concluding discussion, where the answers are anonymously rendered. "Color has started to play a part. Does it give expression?" is also given the answer: "With color you get closer to the humans. It appeals to the senses, it defines atmosphere."

One of the attending architects was Bengt Edman. In 1950, Lennart Holm, together with Bengt Edman, designed the Villa Göth in Uppsala, which began the *brick-brutalism* in Sweden. It is quite likely that Bengt Edman is behind the words about the red brick; my interpretation makes them a manifesto for the Swedish brick-brutalism and its *visions*. The quotation serves as a point of departure for my questions about the approaches to color among Swedish architects. After the Second World War, when industrialization and the consumer society had become a reality, troublesome gaps between education and practice (production), between intention and result, and not least, between the architect and the consumer arose. Colored surfaces can tell about these changes and conflicts, as well as runaway words from the architects. Seen in the light of international discourse, where color during the

second half of the twentieth century has been used as provocation, they appear more distinctly. "Architecture is colorless", Gio Ponti stated about 1960. "A building made of bricks is a building of bricks, not red architecture ...". The predominant conception about the expression of material and structure, was that they had to be naked. Robert Venturi made his mother's house green in 1967, as a challenge: "Although trim could be colored in those days, surface material had to be natural to express the nature of the material and structure. Green was out."

Focusing on different notions of color in architecture exposes external conflicts, but also the inherent paradoxes of color. Relations between, on the one hand, materiality and permanence and, on the other, immaterial and temporary qualities can be discussed by observing color as part of architecture and by the question: In what ways is color adherent to architecture? The colored surface gathers conceptions of what architecture is, and what is not architecture. The colored surface shows if the architect was able to communicate his vision and competence; if and how it comes into conflict with its surroundings. As a "critical surface" color is characterized by outer influence and by the inherent paradoxes: Order, entirety, or chaos, are rendered from color. Color is surface and depth. It combines the ephemeral and the eternal, appearance and reality. It shows and keeps under cover.

The role of the architect and the status of color

Understanding the status and position of color in architecture after the Second World War and later, requires a history of what effect changes in society and production had on architecture and on the role of the architect. The first half-century "can be regarded as a period of greatness for Swedish architecture – and for Swedish architects", Björn Linn writes in 1984, in an article about "The education and knowledge of architects in Sweden". "Obviously, the model for knowledge and education, supporting Swedish architecture from the early 1900's, was successful", he notes, but dates a system crisis to about 1960, changing the basis for the architects work. Industrialization had changed almost all conditions, although the construction itself, according to Linn, for a long time was only half-industrialized. "Only components and equipment came prepared to the building site." About

1960 building construction was fully industrialized and architects tried to adjust their designs to the changes in production. According to Linn they did not succeed. In another article, "Pure of heart and lost. Architects in the Swedish Welfare State – and later", he writes:

By now the design process was reduced. The architects earned neither bread nor honor from a design adjusted to the production. Coloring, though, remained their assignment.

Knowledge from experience, art and craft was no longer enough. The model for knowledge had to meet the change of process. About 1970 schools of architecture introduced education by project, with a view to simulating real situations.

As a student of architecture in the 1990's I ask: Were these simulated situations real enough? Was the knowledge about them sufficient and – above all – was there a real urge to make changes? The Swedish architecture of the 1960's, -70's, and -80's is showing several ways of handling the situation. These "movements" could be given different names considering the role of color in each of them: "Concrete structuralism" trying to adjust to production and to user initiated adjustments; "Brick brutalism" searching a parallel universality as an alternative to consumer society; "Wood tradition" finding places of refuge in local and regional traditions. These three having in common that the added color in different ways was somehow beside the point. A fourth way of tackling the problems could be called colored "catalogue architecture". It concerns single family houses as well as big projects and was handled both by the architects and the users. Perhaps this movement was the most directly related to the consumer, but it also created distance among architects. Linn introduces color as a symbol when he writes:

The architects have made themselves dependent on the model of society formed during the years of rapid economic growth, when it was taken for granted that almost everyone was united by common interests. Now the model is broken and the clashes of interest are visible. The society of today is full of locked gates and guarded boundaries being of more importance to the experience of the surroundings than the most happy of postmodern cosmetics on the facades. Many get stuck in cosmetology because of the irresolution as to what model of society we are to expect for tomorrow. It also made the schools devoting disproportionate time to social studies.

In this context I chiefly focus on the way “cosmetics” – read as applied color and other adornment – represents a failure, the hasty and superficial escape from the real problems of architecture. The conditions of architecture are found in social interplay but handled in the application of material and color. “Happy postmodern cosmetics on the facades” was more severely criticized among architects than the attempts to solve the problems by use of “natural materials”. William Braham summarizes in *Modern Color / Modern Architecture: Amédée Ozenfant and the Genealogy of Color in Modern Architecture*:

... While explicitly colorful buildings are built everywhere, all the time. But when color becomes an issue of contention, the natural, neutral palette continues to offer the most reassuring logic. Like Ozenfant's ‘colour solidity’, the apparent identity of color with natural materials seems to offer its own profoundly authoritative justifications. That was true for architects at the turn of the last century when Adolf Loos identified the repression of the ornamental as a characteristic feature of modernity, and it was true throughout much of the 1990s with the reaction against the nostalgic colors of postmodern buildings, such as those by Michael Graves or Robert Venturi [original spelling mistake]. It is natural color to which architects return when they are called back to order, and colorful colors which by opposition offer a visible resistance to those assertions about the primacy of purity of form.

The conflicts of “cosmetics” and “natural material” are connected with the problems of mass production, where the products are disconnected from a certain place and new models for selection are required. Swedish architects have been doubtful about it, and still are.

Björn Linn offers background information concerning the situation in Sweden. The field of the architects work is about intentions and choices of means, he writes. During the Middle Ages in Sweden, in the “northern periphery of Europe”, most people built by the principle of “home sewing”. Wood was the “natural building material”. The technology of wood construction was locally developed; meanwhile the art of building in stone and brick was imported, as well as “experts” for more advanced projects. From the Renaissance on two fields of knowledge are identified; they do not overlap. The situation is described by Linn, as a “widely spread domestic skill of craftsmanship for conventional vernacular buildings, principally built of wood. The intellectual knowledge aiming at the design of more qualified individual objects, starting to grow in the central of Europe still was an

external phenomenon to Sweden”. The first architects, familiar with the architectural treatises of the Renaissance, were imported to Sweden, as were the classical orders, plan compositions from the French academies, and so on, that is the “idea of a correct taste”. A crisis appeared during the last decades of the nineteenth century. The uniform taste was replaced by “a pluralistic picture of knowledge” founded on remote worlds of forms as “manifestation of the means of the new bourgeois”. As a reaction the architects took an interest in the Swedish building tradition.

History, as first providing “ageless” correct ways of action as present tradition, later changed into a catalogue to choose from in a “distant” and “objective” way, where brought to light as a problem. One stands in surroundings, under transformation by industrialization, and discovers its value, not by its correctness of style but in its existence, its sensuous presence.

What is to be understood by the description of Björn Linn? The two fields of knowledge – vernacular building and “high architecture” – were merging for a while at the beginning of the twentieth century, enough to gain a mutual acceptance. Still the vernacular building was made by craft and the architects of “high architecture” were trying to gain knowledge from the history of the vernacular. The presence of the *material*, to say the *materiality* as the essential quality, was bringing the two fields together.

Subsequently the vernacular building was diverging from “high architecture”. Earlier the materials used for the vernacular buildings were chosen from limited means of raw materials, which treatment was bound to place and craft. This type of building seems to have adjusted, relatively smoothly, to industrialization, where color and design of each part are not adapted to the individual consumer, who acts by selecting from catalogues of ready-made products. The elements are adjusted to each event by *choice* and *joints*. In craft, to a great extent, the working tools were determined by the materials, meanwhile in industry, the materials are conditioned by the tools. The vernacular building adopted the catalogue architecture of the industrialization meanwhile most of the architects of “high architecture” picked from the former popular tradition to escape the loss of context.

On the one hand, the vernacular kept pace with industrialization, most manifest after the Second World War, and transformed

into building from catalogues (lacking theoretical base), integrating the changes in society and international influence (for example of the US). On the other hand, former "style architecture" (under the sway of Europe and built by craft but in its forms a "building from catalogues") now tries to handle the crisis by approaching the traditional type of building; architecture rooted in the regional (defusing international influence) – first as national romanticism and material realism and later as brick brutalism and the 'unconstrained tradition'.

Dream in Black and White (color when awake)

Are dreams said to be black and white? I have read about it earlier, in a book by Alison and Peter Smithson, *Changing the Art of Inhabitation. Mies' pieces. Eames' dreams. The Smithsons.* where Alison writes:

The point of examining the Eames phenomenon was because of their shattering of the solid concept of the chair leg; of concept thinking in black and white. This last we are only just breaking down because of the realisation that ordinary people, with colour supplements and colour television, are losing the ability to think – as it were in shorthand – in black and white ... and children may never know. Maybe even dreams are coloured now.

The Eames' light-hearted thinking in feather-weight climate-bits-and-pieces seeming off-the-peg-architecture ... the do-it-yourself out of gorgeous catalogues, the Sears-Roebuck thinking ... the whole of the blow-up, plug-in, camp-out, dump-digging type of thinking and living had flown off the spinning Eames like mud off a truck tyre.

The text is undated, but presumably from after 1970. It is illustrated by a picture of two chairs with 'Eiffel Tower' base from 1950-53 of Ray and Charles Eames and by a perspective drawing of the Eames' House (1945-1949). The aim of the text is not known, perhaps it was meant as a caption, only in 1994 was it published. The expression of "seeming off-the-peg-architecture" and "the do-it-yourself out of gorgeous catalogues" focuses on the problems of the time.

In the 1950's the home and its appliances were dominating the American Dream, the consumption and mass production. Single-family houses were built in residential districts outside the big cities. Long Island, Pennsylvania and New Jersey all got their Levittown, named from the building firm Levitt and

Sons. Charles Jencks talks about "consumer power where design initiative is decentralized and everyone is (theoretically) given the opportunity to buy what sub-systems he can find on the open market". He points at the do-it-yourself industry which in the beginning "started off catering to relatively unskilled labour in the house – such as painting, decorating [and] wiring ..."

Paint, as "you may as well do it yourself", has since caused friction between professionals and laymen, not least in Sweden. The do-it-yourself boom in the United States inspired the Swedish paint businesses to bring the water-based paint to Sweden, for the first time in 1951, under license from an American company. This was an outside architecture act, but influential. The do-it-yourself as quiet act in the homes planted the new ideals of the modern world, through buildings, but out of the control of the architects. The manufacturers went in for advertising; one company described their water-based paint:

[The color system] gives, practically, unlimited possibilities to free choice of color ... It covers better than any other paint, it dries in fifteen minutes and it hardly smells at all ... The result? Its surface is limitless washable, reject dirt and is glossy as silk.

At the same time Swedish architecture got rid of most painted surfaces, in the projects presented in the architectural press. It started about 1950, when the architect Hans Asplund called Bengt Edman and Lennart Holm 'neo-brutalists', provoked by their design for Villa Göth. As to be read in the book by Reyner Banham, *The New Brutalism: Ethic or Aesthetic?* (1966), the term 'Brutalist' was brought to England, where brutalism among other things meant that the structural materials of the building are exposed, without plaster and "frequently without paint".

The threat from below, from actions of "ordinary people" painting their homes, was probably as influential as the international discourse to provoke Swedish architects to build in natural and naked materials, stressing on structure. This influence though is not talked about, because it comes from outside architecture. On the other hand, international discourse is not talked about either as related to the Swedish context. Here a discussion follows from two built examples, a red wall and a green wall. They are chosen for their clarity as *representatives of the brick brutalism, a movement both typical of the period*

and timeless, and the do-it-yourself-painting, a continuous phenomenon after 1950.

1964 – A red wall

In *20th-century architecture. Sweden*, published in 1998 on the occasion of an exhibition in Frankfurt am Main, the Villa Hägerstrand, designed by Bengt Edman and built in Lund in 1964, was represented by two photographs and a short text. "When Torsten Hägerstrand, a professor of cultural geography, hired Bengt Edman to design his home, he gave the architect a clearly defined program, but appreciated Edman's desire to let the form of the house be determined by the inherent configuration of the site and the building materials" Claes Caldenby writes. "Now the children would each get their own room in a well-built house of brick and wood without wallpaper and paint" Hägerstrand recalls. He drew an organization plan and Edman responded to it by placing the small rooms in a long, thin building, shaped by three of the boundaries of the building site; the inner long wall forming an outdoor yard, partly partitioned by a glass wall forming indoor living and dining rooms, the garden defined in the north by a wall. To Edman the natural and cultural history of the site was part of the motive for the planning and the choice of material:

The owner is a geographer. In the long term, he sees the shape of his land as the result of a series of planning decisions. That the room configurations of the house are clearly linked to these decisions gives him a certain feeling of satisfaction. Even the choice of materials is related to the earth. Wood, brick, and cork.

When comments are made in the literature on the house similarities with a typical Scanian farmstead are noted, but foremost the choice of material is emphasized, the brick and its way from brickworks to building and from clay to ceramic gloss. Almost free of charge the bricks were bought and transported, dark-baked brick rejects, on pallets from a brickworks in Scania. All walls were built of brick. "It amused the bricklayers to build a mosaic with this material instead of regular running bonds" Hägerstrand writes. The wall between the long thin building and the yard is supporting the logic of the house. "The wall is strong enough, whether you like it or not, to direct the way of being in the house. That type of order is important. I call it structure in contrast to common mess", Edman writes. "With the presence of daylight, the wall

towards the living room appears like an outer wall; there is a house in the living room."

One of the photographs in *20th-century architecture* shows an interior from the living room exposing the main wall, white washed – which the text refrains from mentioning. Instead it says: "The raw brick was left unaltered inside." As literature the licentiate thesis of Gunilla Millisdotter from 1993, *The architecture and pedagogy of Bengt Edman* is mentioned, where the story of the white wall is told:

Using brick for the inner wall means not only that the structural material is honestly exposed but also that the users are bound to one material and one color. They cannot change wallpaper following the changes of fashion or varied requirements according to age. When the villa was built fashion provided dark earthy colors which were in accordance with the natural appearance of brick. Mr. and Mrs. Hägerstrand did not express a wish to follow the changes of fashion, but they are of the opinion that you need more light when you grow older; therefore they, in consultation with the architect, painted the main wall white.

2002 / 1964 – A green wall

About year 2002 the Swedish paint business Alcro asked "some of the best architects" to re-make ordinary houses with paint. "Their task was to create personal houses."

Lars Beskow and Björn Bahri were assigned one typical house from the 1980's. It was red with white details, had a heavy black roof and an entrance that "felt more like a kitchen entrance, not giving that welcoming impression, you ask for", the architects thought. They chose a green color for the entrance part of the front facade. The door and window frames are painted with the same green color, but the new coarse banisters are white. Everything else in the facade is painted white, with espaliers for plants. The pleasant green color helps to mark the entrance, according to the architects. The entrance stair is made broader "to give a more welcoming impression". "The green color acts as an extension of the greenery of the garden ..." The roof was made lighter, light gray. In the gable the house has a patio and an outer gable room, which are drawn in under the roof, as typical in the mass-produced single family houses from this period.

"Once upon a time a quite ordinary house, with a quite ordinary

roof, quite ordinary windows and a quite ordinary door, was also painted in quite ordinary colors." It had been conventionally red and was painted green and white with ordinary paint but in an unconventional way. That's why I think it looks like the house that Venturi designed for his mother.

The Mother's House was completed in 1964, situated in the residential district Chestnut Hill outside Philadelphia. The two gable-formed walls in front and back enclose the complexities of the inside. The walls are painted in a soft and grayish green color. The outside form, Venturi says, is simple and consistent and represents the house's public scale. "The front, in its conventional combination of door, windows, chimney, and gable, create an almost symbolic image of a house", he says. The windows look ordinary but have different sizes. Most of the window frames are painted in a color near the green color of the wall. When I visited the house, one of my colleagues was surprised to find the house green. He had only seen drawings and photographs in black and white. The daughter of the owners told us that Venturi still comes to the house when it is time to touch up the paint, to control the tints.

Venturi is using a *strange* green color to strengthen the screen-like quality of the walls. He made the house both an image of a house, dissociated from the surroundings, and, at the same time, an almost disappearing but physical part of its context. The Mother's house is "a shelter with symbols on it". The house is placed in a virtual reality, as well as a physical, perhaps where dreams are black and white. In an essay in the book on Mother's House Vincent Scully describes the immateriality:

And even if only its facade were known, or if in fact there were no building behind it, that diagram would still have a telling effect because it is a perfect drawing, weightless as pure line and transcending material ... It is carefully made to look like a cutout cardboard model of a curious color, associated with no material.

In the beginning, the house was gray. According to the editor of the book on Mother's House, Venturi painted the house pale green in 1967, "to make it 'analogous' to its suburban location of trees and shrubs and because 'there was a famous architect [Marcel Breuer] who said at the time, 'One thing I never do is use green on my houses because that's the color of nature and you never do that' ..."

The Whitney museum, an example of a gray house, was opened in 1966. It is described on the museum's home page:

It owes its striking granite presence ... to the Hungarian-born, Bauhaus-trained architect Marcel Breuer" who created "a strong modernist statement ... Considered somber, heavy, and even brutal at the time of its completion in 1966.

In his book from 1966, *Complexity and Contradiction in Architecture*, Venturi does not mention color as part of architecture. But examples from the art of painting are used in the speech for "a complex and contradictory architecture based on the richness and ambiguity of modern experience, including that experience which is inherent in art". He points out the paradoxical quality of painting – it gets its vividness from the juxtaposition of what an image is and what it seems, a paradox inherent in perception (of color).

Venturi was arguing for an inclusive architecture, at levels of experience as well as in relations to existing buildings and conventions. "An architect should use convention and make it vivid", Venturi says. The architect selects from existing conventional elements to find solutions of *what* and *how* in a building:

Through unconventional organization of conventional parts he is able to create new meanings within the whole. If he uses convention unconventionally, if he organizes familiar things in an unfamiliar way, he is changing their contexts, and he can use even the cliché to gain a fresh effect. Familiar things seen in an unfamiliar context become perceptually new as well as old.

In the publication from Alcro, *New-created*, an ordinary man tries to find a solution to a problem; his house – although he likes the planning and the garden – looks like all the other houses in the neighborhood, "quite boring". He finds the examples from Alcro attractive:

They had re-painted different ordinary houses, and changed some details. May be a good idea. Grasp the house as a whole. Creating a new character from the old. Getting a new house but keeping the nice lot and live there still.

In the middle of the entrance facade of the mother's house a square marks the entrance, or more precise a shady outer room. The front door is small, green, and placed to the right,

almost out of sight. On the Alcro-painted house, the front door was painted green to welcome, but I think that the screen-like quality, achieved from a green color, almost the same as the greenery, works as enclosure, hiding and sheltering, and, more distant from the everyday life, as a mask, which both cover and represents. "Enclosure was out, corners were taboo. My mother's house returned to enclosed space with windows", Venturi writes in 1991. "Shelter. The house is a shelter as well as an enclosure."

In *Learning from Las Vegas* (1972) the "decorated shed" is defined; ornament is applied independently of the neglected structure. In the book, Denise Scott Brown and Robert Venturi proposed a "theory of ugly and ordinary" arguing for architecture "as shelter with symbols on it". In the course "Learning from Levittown" at Yale in 1970 and on the 1976 exhibition *Signs of Life: Symbols in the American City*, they tried to be open-minded in their understanding of the vernacular. The exhibition featured headlines as "Do-it-yourself styling" and "Similar houses personalized over time". The definition from *Learning from Las Vegas* had its forerunner in the theories of Gottfried Semper.

The Essence of the Wall

In 1834, starting his long drive for colored architecture, Gottfried Semper wrote:

Collectively the arts were born when man began to adorn the first raw shelters set up against the weather and hostile pursuit. This occurred very early, since play and adornment belonged to the first need of early man. He varnished the unpretentious surface of the raw material out of which the shelter was made. His childlike imagination favored bright colors in motley combinations, as nature around him had done.

Later he described the enclosure as one of four elements generating architectural form. Woven material, colored carpets, formed the wall. Hanging carpets remained the true walls, Semper said, when later they were transformed into clay tile, brick, or stone walls. He also says: "Wickerwork was the essence of the wall." "The often solid walls behind them were necessary for reasons that had nothing to do with creation of space; they were needed for security, for supporting a load, for their permanence, and so on." Semper's theories of "dressing" and "material transformation" have been interpreted

in many different ways, as was his notion of the mask. Semper considered color

the subtlest, most bodiless coating ... the most perfect means to do away with reality, for while it dressed the material it was itself immaterial.

Using brick for the inner wall, Millisdotter wrote, means that the structural materials are *honestly* exposed, which make pretence of the dishonesty in doing otherwise, to cover the structural material. Finn Werne, in the 2003 yearbook from the museum of architecture in Stockholm, *Material and Materiality*, described the architecture of Bengt Edman and "what was to be called the new brutalism", laying stress on this aspect of morality:

... the materiality of concrete, brick, wood and steel, gave the buildings their willful characters and strong, but low-voiced, expression. ... Here the architecture was permeated with the genuineness of the material, in its parts and as a whole, not only as aesthetics but also as ethics and morals. Therefore, it must have been with difficulty Bengt Edman made the decision, to have the concrete elements painted at the student center Sparta in Lund. When it was built in 1972 of concrete elements, its surface being raked to bring out the rude materiality of the concrete, it appeared that the ballast and the rude texture had, for concrete, an untypical dark gray color. Therefore Edman decided to have the surface painted in a lighter, more concrete-like, gray color!

It was a matter of course, during the Twentieth century, in different words, to describe buildings as 'structure' and 'skin', or 'shed' and 'decoration'; the separation makes it possible to put stress on one of them, and to leave one of them out of architecture. The hierarchy of the building elements was nevertheless not definite.

Perhaps we thought that the wall, as we saw it, *white*, in modern architecture, was naked. In *White Walls. Designer Dresses* Mark Wigley describes the white in itself as a dressing. In the picture from the living room in Villa Hågerstrand the brick is half-seen under the white surface. The white is reflecting more light, but doesn't hide the joints of the structural material, the *massing*.

William Braham analyzed the use of color in modern architecture and its genealogy from the concept of the painter Amédée Ozenfant, 'colour solidity'. Braham pointed out that the concept of Ozenfant contains both the material solidity and the solidity as an "effect to be achieved with the 'virtual'

colors produced in the eye by simultaneous contrast". "Ozenfant's claim for 'color solidity' could not have been more provocative", Braham writes, quoting Ozenfant: "A 'virtual' tint is always more attractive than the same hue in reality." But Braham also emphasizes that the search for color solidity aimed at preserving "the integrity of forms". He quotes Le Corbusier, "emphasized the optical properties of different colors and their use as supporting elements":

"A red wall that is fixed, a blue wall that recedes, a warm wall, a cool wall, etc. ... these are the elements of architecture."

This aspect of red, recurring in history, explains the choice of red brick.

To return to the statement of Björn Linn; the field of the architects work is about *intentions* and *choices of means*. Primary colors and earth colors as well as natural materials as wood and brick have inherent durability and provide a limited selection. As Braham stated:

The disappearance of the traditional discipline of limited means for making paint and the recognition that color is a subjective perception have complicated the logic of architectural palettes since the beginning of the modern period.

In *Von Material zu Architektur* (1929), translated in English as *The New Vision*, László Moholy-Nagy, Hungarian artist and teacher at the Bauhaus, set up a terminology for the different aspects of materials. Four terms were used: structure, texture, surface treatment and massing. "The unalterable manner in which the material is built up constitutes its structure", Moholy-Nagy said. "The resulting outward surface we may call texture." Surface treatment "means the sensorily perceptible result (the effect) of a working process as shown by any given treatment of a material". The change in the material surface is caused by external forces. "The fourth aspect of the appearance of material is regular, rhythmical, or irregular massing." Structure and texture describe characteristics coming into existence when the material is formed. Surface treatment comes later, from outer influence, changing the surface. The aspects often overlap but, "in a general way", Moholy-Nagy writes, "structure and texture determine the choice of working tools;" meanwhile "surface aspect ... is conditioned by tools, by the possibilities of external force". By means of the terms structure and surface treatment or "Faktur" in German, it is possible to separate the making

(process) and the treatment. The terms were usable at a time when the focus was on the difference between craft and industry, authenticity and reproduction, materiality and abstraction, function and ornament.

Discussions about color as a physical and virtual phenomenon, as material and immateriality, and as material and product, have been vivid since the 1830's. I think it was particularly evident during the so called Brutalism, but also of present interest. Braham quotes Rem Koolhaas:

"There are two kinds of colours. The ones that are integral to a material, or a substance – they cannot be changed – and the ones that are artificial, that can be applied and that transform the appearance of things. The difference between colour and paint!"

The color of brick appears in and is subordinated to a manufacturing process. Bengt Edman tells about a visit to a brickworks by the Nile:

How does one describe an assembly line that is stationary while the workers and tools move: Clay carried on heads is dumped onto a table, pressed down into wooden forms, set on the ground to dry, and stacked to be brought to the kiln. In this way, the production process and the table flow in an endless loop through the aisles. I hardly know of anything more material-stimulating than being surrounded by high stacks in a brickyard store room.

Already at the place of production bricks are buildings in a way that color will never be. Color is all surface treatment. Paint is a material, but more than brick it is a product disconnected from a certain place, and the colors of paint both appear later, in the perception, after the building is completed, and disappear, because it is an impermanent material.

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Bechir Kenzari

Antoni Tàpies and the Violence of Texture

"Concrete looks terrible; it must be painted." *L. Barragán, 1981.*

Preface:

In lines with the theme of the conference, it might be relevant to pay attention to the relation between architecture and other disciplines. The impact of inter-textual connections, as a pertinent mark of the post-critical discourse, is not only an emerging paradigm but a renewed emphasis that disciplines can only survive through influence.

In considering the influence of other fields of inquiry on architecture, it might be secondary to review the authority exercised by architecture itself on other disciplines. Yet within the context of the conference theme it may become necessary to follow such a course. Not only because the context of interdisciplinary exchanges stipulates a certain diversity in treating the sources and directions of influence, but because influence itself is a complex concept that may involve more than just one layer, and one more than one direction. Since textuality has disrupted the notion of stability and originality, influence has also come to imply random and infinite connections between texts. And as texts chart between locations, recognizable sources are not always straightforward. This, of course, renders the whole concept of influence very vague and slippery at the outset.

From this perspective, it is tempting to pay attention to how the notion of architectural *texture* has been manipulated by a non-architectural domain, namely painting. A focus on the work of Spanish artist Antoni Tàpies is highlighted, especially in relation to what is often called his "walls." The interest in this topic is twofold: first, it shows that architectural ideas can affect other disciplines, including painting. Second, that an architectural notion highlighted outside architecture is often associated with other notions, which may or may not be architectural. In the case of Tàpies, texture will be seen under the heading of violence, both as a historical background of the artist's life and as an artistic technique of rendering.

Examining the appropriation of architectural texts by other disciplines does not particularly imply an interest in the idea



of relevance, in whether a given importation of architectural notions by another discipline is itself worth-considering from an architectural standpoint. Rather, it tries to establish a context by which architecture can investigate its concepts outside its own boundaries, that it may be more aware of the complexity of its theoretical nature. This is on the one hand. On the other hand, architecture has often taken back what was borrowed, and then promoted it in a new way. The Twentieth-century debate regarding fenestration, for example, was preceded by the Nineteenth-century poetic interest in window symbolism. "Computer architecture" is another example, whereby an architectural notion traveled to another domain, namely computer science, then came back in order to trigger digital conceptions of architectural design. A given metaphor, therefore, often swerves from the architectural path, then comes back home as a new promise. This form of prodigality seems to be worth considering especially in determining the cognitive nature of the architectural discourse as a whole.

From this perspective, it is tempting to pay attention to how the notion of architectural *texture* has been manipulated by painting. Texture of course signifies the palpable, tangible details inscribed in any text and refers to the distinguishing elements which are separate and independent of the text's structure. Within our context the term is taken to imply affinities with the concept of surface detail as found in painting, sculpture and architecture. The import of texture in architecture emanates from the fact that the discipline operates not wholly in abstraction, so as to be solely a reflective phenomenon, but within in the realm of making. The discipline's destiny is to therefore submit itself to the requirements of empirical life which texture is supposed to represent. This leaves to argue that unless and until it actually exists as a physical surface, an architectural object is little better than a mere speculation on a space that has been reduced to geometrical intelligibility. From another angle, texture could also be understood as a correction of the exaggerations of "logic" that cause the colorful local details to disappear into the grayness of systemized abstraction. Under this formulation, architecture can be equated with "sensuous richness," "fullness of presentation," "immediacy," and "concreteness." All these attributes assume the form of sensory intensities and tactile associations, although the definition could be made more complex if we pay attention to the individual technical subtleties and patterns of a given architectural entity.



Because it requires weight, density, light and color, an architectural object inherently shares strong grounds with painting since in both the material characteristics of the surface constitute the very identity of that surface. The modality of assigning a given color to a wall, for example, differs little from applying a color to a blank canvas despite the dimensional differences that separate the two exercises. In both, the effort to promote a given effect implies that materials, which have their own physical characteristics, refer to certain feelings and emotions and are, therefore, chosen not for the usefulness they add to whatever functional or structural service required but also because they accommodate themselves to expectations that are fundamentally aesthetic. Even when the textural treatment applied to the architectural object may not bear a technological resemblance to the way a given product is used by the painter, there is nonetheless a striking resemblance between the two. This explains the almost-intuitive attraction to painting that many architects demonstrate. The Mexican architect Luis Barragán, just to stay within the bounds of the starting quote, is a case in point. We are reminded that he, Barragán, borrowed some colors from the 'fighting cocks' of his friend the painter Jesús Reyes, particularly the blue and magenta of some of the walls in the Gilardi house. In his early work, especially in the banisters, latticework, doors of turned wooden spindles and glass, and the occasional window, piece of furniture, Barragán also borrowed colors from the French illustrator and landscape artist Ferdinand Bac. The Mexican architect also at times copied certain color combinations from Choukhaeff's illustrations for Pushkin's play Boris Godunov. And so on.

This is if we look at the subject from an architectural standpoint. But if we turn to painting and endeavor to inspect how architectural notions and techniques engage the production of painted objects, we may find a significant answer in the work of Spanish artist Antoni Tàpies, especially in relation to what is often called his "walls." The interest in this orientation is twofold: first, it shows that architectural ideas seem to influence other disciplines, such as painting. Second, that an architectural notion highlighted outside architecture is often associated with other notions, which may or may not be architectural. In the case of Tàpies, texture will be seen under the heading of violence, both as a historical background of the artist's life and as an artistic technique of rendering. Violence in itself, may not be a primary architectural category. But as crystallized on the surface of walls, by whatever

agency and for whatever finality, it necessarily acquires an architectural dimension.

Now in the hundreds of works Spanish artist Tàpies painted over nearly half a century, violence develops like a substitute of censored tears. At the root of this artistic expression we find a suffering that sometimes expresses itself brutally, and sometimes through a calm process. A body of work whose essence is quasi-traumatic, whose signs have only to be brought back to some rough memories to acquire meaning. Essential to the understanding of this traumatic art is the condition where painting is emptied of a content, where it is no more than a density of signs and sensations built up on the canvas as gestures, tones, distances and light. The result immediately explodes into substances, not specific contents. The content, if it exists at all, is in an embryonic state; as if the artist's role is not to represent an achieved meaning as much as to determine the vocation of a failure.

The specific reasons which kept Tàpies' art in this state of incomplete creation, so far from the work of Picasso and Miro for example, are to be possibly found in the way the artist grew up between the walls of Barcelona. After the Spanish Civil War of 1936-39, in which they unsuccessfully opposed the Fascists in their struggle to preserve their cultural identity, the Catalan people suffered a harsh repression from General Franco. Tàpies, who was born in 1923 in Barcelona, remembers the measures the dominant Franco regime took to annihilate the Catalan language and culture in the post-war period, when the autocrat outlawed the speaking of Catalan in the schools and on the streets, outlawed publication of materials in Catalan, imposed strict censorship, and maintained secret police in the province. Thriving cultures such as the Catalan and the Basque, which the languages kept alive, threatened Spain's strength as a nation-state. Graffiti and Civil war:

After some surrealist beginnings, Tàpies began to build up a particular personal style related to *matière* painting, or Art Informel, a movement that focused on the materials of art-making, combining the techniques and forms of "action painting" with his own deep sense of human pathos. This particular treatment of texture and material, a sensibility that has lent his paintings the unmistakably rich, mottled, and ancient character of a Spanish wall, started with a fascination with graffiti.

"Everything contributed to the fact that my first works of 1945 had already met with the street graffiti and the whole world of repressed

protest, clandestine but living, running along the streets of my country."

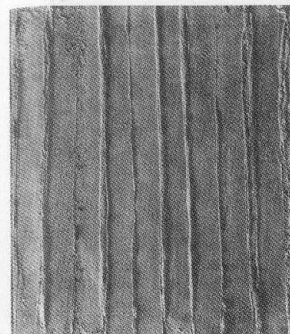
Reflecting further upon the origins of his fascination with walls, he wrote:

If I have to give an account of the way I have slowly come to realize this suggestive power of images of walls, I have to go back to my early days. I have to go back to souvenirs from my teenage and young days between walls, walls between which I witnessed wars. All the drama that was suffered by adults, every atrocious thing invented by an epoch which, among other catastrophes, seemed to drift to its own impulses, all that was taking shape under my gaze. In the city where thanks to family tradition I made it a habit to feel that I was at home, all the walls bear witness to the martyrdom of our people, to the inhuman arrests inflicted upon it.

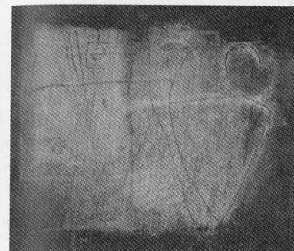
He had begun down the attack path which is that of the marauder of the blank wall. Walls block access and vision, but also provide a backdrop for graffiti and the effects of the passing of time, and Tàpies' steady use of this prototype and the miraculous mixture of materials through which it is communicated enclose his endeavor to illustrate the violation of representation. The tool of the graffitist is of course the sharp point of tools, used to scar, maul and ravage the smooth stuccoed surface of the canvas. The practice is that of a breach, the intrusion onto a territory that is not the graffitist's own, the adulteration of a ground initially consecrated to another purpose. The effacement of that purpose takes place through the act of dirtying, smearing, scarring and excavating. However minimal the content, the consequent mark has a substance made up of the physical surplus left by the marker's infiltration: the smudge of graphite, the mark of ink, the wound thrown up by the penknife's laceration.

The journey to the desert

The form of the mark as present in these early graffiti is the clue, which dwells inside the dominion of hints and gestures. With the years, the tendency to favor hints and gestures then took a different path. Out of the early frantic movement, the gesticulation, the inexhaustible dynamism, out of scratches, strokes, scars, divisions, subdivisions applied to each millimeter of matter and to each one hundredth of the millimeter, a "leap" suddenly occurred. The eye was not perceiving graffiti suggestions any longer, as every scratch was melting into a uniform paste. By mixing paint with earth, glue and marble



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dust, he started to produce "wall pictures." The new work includes paintings with thickly impastoed, scratched or scraped paint in a dramatic style with severe architectural metaphors and earthy color, often reproducing the corrosion and ware through time of doors and walls. The new technique resulted in textural richness, but its more important plan was the examination of the transformative qualities of matter. With a frenzied and intense resolve he zealously delivered himself to the test of forms until each canvas became a battlefield where modifications multiplied to infinity. That which was ardently boiling in graffiti, moved on its own accord into a new landscape. The thousands of scratches turned into thousands of dust grains, of grains of sand. A totally new setting suddenly presented itself, thus opening the most intimate essence of things. Suggestions of unknown molecular structures, corpuscular phenomena, universe of galaxies, microscopic images. Dust symbolism, ash symbolism, symbolism of the earth. This is what he called the long "journey to the desert."

The no-meaning of walls:

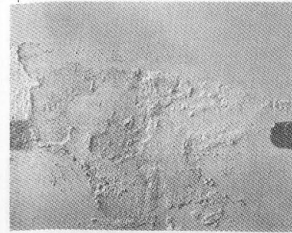
When asked to explain his walls, Tàpies replied,

What I want to say is that I don't think that in my work images have to be looked at as detached pretexts whose role would be limited to support plastic components. To the contrary, my walls, my windows or my doors, at least in their suggested image, maintain their reality without losing any of their archetypal and symbolic charge.

Is it then a return to the "subject"?

We know today that things, in the structure of artistic expression, can magically be there, or not, can appear, disappear, go from one side to the other, trigger associations and so on. Everything is possible because everything happens in a field that is wider than the field defined by the format or the material content of the canvas. The latter is in fact nothing more than a support which invites the viewer to the bigger game of the one thousand and one visions, of the one thousand and one feelings. A talisman that erects or destroys the walls and windows inside the most remote regions of the mind. The "subject" can therefore be either in the canvas or in the head of the viewer. "I have said on several occasions that reality cannot be in the painting; it cannot exist save in the head of the spectator."

From another angle, those who have touched on Tàpies work know well that his oeuvre bears little relation to what might



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be called art engagé, or committed art. His is an earthly work of a dramatic moment that seems to eternally expand anxiously. A work that says little about the daily, of its mise-en-scène and its accidental appearance, as unbearable as this might be. No Guernica here. The commitment is elsewhere. The dedication of Tàpies is a commitment within violence. A situational response, a masked violence, an open violence. To be able to install in front of our gaze the "ugly," the scrap, the rubbish is the way for him to question the dignity of waste, to mock the legitimacy of things useful and to dissipate the too-much. A violation of usages: this is the other task. Within the official euphoria, Tàpies makes it a task to spell discomfort. He brings things down indeed. But nothing, or almost nothing "positive" is achieved in his paintings. Almost nothing, except perhaps an incentive to take into account something elementary and primary. To make us aware of the occurrence of an event.

If Tàpies' canvases can be said to have the constitution of an "event" it is because they reside in the order of the trace and are produced by its violence against the very possibility of presence. But violence is not just an outcome of its being the deposit of a crime; it is instead a requirement of the constitution of the marker's having been distanced from himself. By deleting his own presence he leaves only his trace. Thus even at the time he, the marker, attacks the blank canvas, he strikes in a tense that is no-longer. Entering the scene as an unlawful agent, he is aware that the mark he produces can only take the form of a hint, which he hands over to a future that will be carried on without his attendance. In so doing his mark cuts his presence away from himself, dividing it from within into a before and an after. This is another aspect of violence: temporal incongruity.

Some have tried to find in this approach a distortion of some imposing order, of its destruction from within as it were. Similar to what Gaudi did when he, like Balzac before him, placed himself in the center of the capitalist society and not only reminded that society of the ideal exigencies which it championed, but also proceeded with a flood of violence, an abundance of forms, of colors, of phantasms the least of which ridiculed the same society and its programs. Unlike Gaudi, Mirò and Picasso, however, Tàpies has had nothing to oppose, and no metaphysics to be preached. To be specific, there is no clear beyond-ness in his case, and no confidence in idealized discourses either, especially those which look down upon the daily and the close. Beyondness is regarded

suspiciously because Tàpies, perhaps like Nietzsche before him, considers metaphysics an attempt to take by force the most fertile fields, that is a pure manifestation of violence. And like Adorno he seems to realize that what constitutes the violence of metaphysics is not so much the mechanism of transcendence in itself, the transfer to another order of reality that fails to recognize that which is immediately given, but rather the mechanism of grounding, the process that claims to reach a promised "other" and to establish itself in its disclosed presence.

This reluctance to metaphysics is substituted by an attraction to the immediate in its material, architectural form. Tàpies' love of poor materials is expressed in the way they meet and intersect in order to form a unity that alludes to the birth of life (earth, mud, straw, wood..) but also to death and deterioration (dust, rubbish, excrement..). These materials are not static, placed here and there in a random fashion as it were. They are set into action by a gesture and transfigured by a gaze according to the rules of a whole figurative vocabulary (foot, mouth, eyed hand, skull, body) which represents nothing in itself but which sends the viewer few signals nonetheless. As Xavier Antich has noted, Tàpies does not look down on things even the most insignificant ones; he loves them, pursues them and listens to them, lets them speak. He is enchanted by the aroma of damp earth, the touch of cut grass that will soon be straw, the trunks and wood, by marble dust and varnish. Perhaps unwittingly, there is here an aesthetic of everyday and a restitution of the mystery of the banal. Unlike old aesthetics, obsessed with imposing forms on things, Tàpies lets the material choose its own form, only a print behind, the trace of someone giving up his place. With the passage of time he has gradually emptied his great constructions of material signs and left them stripped on the verge of silence, at that limit where all things speak by remaining mute, articulate through their very dumbness.



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Pushed to its limits, matter is ready to receive and to keep alive the pervasive and slicing trace of a human being kept aside and condemned to silence. To perpetuate itself, matter calls for the occurrence of a human sign, a sign which from canvas to canvas reveals and hides itself, provokes and upsets reading. But Tàpies would not accept a sign unless it is both adulterated and stricken by mutism, that is unless it has become a sign of no-meaning, or better a sign that awaits the arrival of meaning. Such a sign is a quick-tempered gesture that slashes the canvas, a gesture that designates the indefi-

nite and eliminates the arrival of every hope. Non-articulated, it remains buoyant and suspended, a challenge to thought and sleep, a dispersed language that remains within reach nonetheless. From canvas to canvas, Tàpies digs in the architectural land, in his souvenirs, in his imaginary universe of books and in things unseen. He scratches those accumulated thicknesses again and again and would not give up until he has completely brought them near whatever his desire declares to be clear and final. Only then does he stop.

Conclusion

We here touch on the question which the work of Tàpies seems to ask, namely that this work creates less and designates more. A language that is constantly in a state of delay. But it's precisely on the logic of this universe which exists only as a void that Tàpies' painting is predicated. From this emptiness he departs; to this lack his gesture responds. The preciseness of a given touch comes from the fact that whatever is sought in the universe takes its place within a sensible and mental realm that is fundamentally unknown, a realm affected in its most existential definition by negation. To rescue these unknown possibilities of meaning from the unknown to the status of physical reality constitutes for him the very definition of artistic invention.

The artist has to always invent; he has to throw himself into the unknown, rejecting every prejudice, including the study of the so-called 'traditional' techniques and materials. I cannot conceive of the artist except in terms of adventure, of moving from one stage to another without the fear of jumping in the void.

Tàpies' aesthetic is always advancing. Yet, it is constantly returning to its origin, to the ancient fascination of the architectural gesture, primary and radical, which leaves prints on things. The eloquence of the work does not depend on mastery of the material as much as on a capacity to reveal the silences hidden within it. Standing at the opposite side of formalism, his art, like architecture, is profoundly concrete. It entertains a discrete relation with the empirical world, a relation that is not facilitated by representation. Gray, ochre, brown, dirty surfaces. Crosses, arrows, letters, vague figures and the very things we discover each time we walk in the streets of our cities. This discharge of gestures, objects, of insignificant materials which belong to our daily landscape and which Tàpies' paintings make us perceive, appear to us as if we see them for the first time. Because of the world he obliterates and erases, Tàpies offers us the premises of a



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dawning world. The scribbling of children, the stains, the foot-prints, the primitive hands, the living letter that is obsessively repeated, the T cross, this first symbol of unity made out of the meeting and unification of two opposite forces. Then the letter A, the symbol of beginnings. These are values which besides their insistent reference to the *Ars Combinatoria* of Ramon Lull, the Twelfth-Century Catalan mystic so much admired by Tàpies, come to be added to the initial letters of the painter's name (A)ntoni (T)àpies. Initials which necessarily claim a legitimacy to their inscription since Tàpies in Catalan means "wall." A rare case where a painter's proper name carries so much reference to architectural plasticity and creation. A world is here taking shape in the form of a signature which Tàpies has always defended the principle, not out of egotism but as a unifying principle of an otherwise multiple and dispersed production. Triggered by violence, often articulated by means of a violent language, the oeuvre of Tàpies targets the occurrence of a meeting whereby the architectural eye will embrace textural intensities as present in painting. His work is striving to offer a space for architectural meditation and inspiration, a fragile support that vacillates for a moment, then disappears into nothingness.

Illustrations

- 1 Composition in white on cardboard, 1953. Paint on cardboard. Exhibition Galeri Stadler. Paris, 195
- 2 Grey relief, 1958. Mixed media on canvas 81x65 cm. Private collection
- 3 The Cry. Yellow and violet, 1953. Mixed media on canvas 97x130 cm. Private collection, Barcelona
- 4 Lead grey with two black marks, 1958. Mixed media on canvas. Private collection, Milan
- 5 Composition black and white, 1954. Oil and Vanish on canvas. Private collection, London
- 6 Flama, 2000. Marble dust, varnish, paint, oil pencil and pencil on wood.
- 7 Petjades I tisoires, 2000. Marble dust, varnish and paint on wood.

Digital Introjection

Abstract: Advancements in digital technology have brought forth changes in art and architecture in the way that knowledge is represented and visualized. As an abstract machine, the new architecture points to "data-space" environments, rather than to "tectonic-space" compositions.

1. *Knowledge as the differentiation of the actual vs. the virtual.*
Architecture cannot limit itself to craftsmanship and aesthetics any longer. The new reality requires that architecture keep abreast of two significant bodies of knowledge: the actual and the virtual. Knowledge is a parallel universe, forms a generic diagram, and acts as comparative research.

2. *The science of art rather than the art of science.*
There is little doubt that a significant body of architecture and critical thought exists outside mainstream architectural discourse. This process may transgress the limits of architecture, bringing forth an architecture that no longer conditions the design, but designs the conditions.

3. *Knowledge transgresses the limit.*
Would it be possible to enter a space that appears to be real, but exists "neither here nor there"? According to Foucault, "we are in the age of the simultaneous, of juxtaposition, the near and far, the side by side and the scattered."

4. *The abstract modeling machine: architecture as research.*
The virtual ignites the spark of the new, the element of innovation that it has over the possible. It generates change through the unpredicted leaps that the virtual bring to the actual. It enables the actual to become more than itself, to move away from the way it has always functioned, since the virtual has become a potential reality. The next step...

Keywords: architecture, space, virtual, environment, experience.

1. Knowledge as the differentiation of the actual vs. the virtual

Architecture has for centuries been considered a "craft". The architectural profession confronted with the complex manifestations of our society, can no longer limit itself to craftsmanship

and aesthetics. This new reality requires architecture to be continuously become informed on two major forms of complexity and knowledge: on one hand the application of the new craft techniques and on the other the methodology used in the making of the architectural space. The notion of knowledge is pivotal in shaping the new dynamic field: it is a parallel universe, a generic diagram and a comparative research.

If we consider architecture as one of the modern sciences, then we can follow Heidegger's statement that a science cannot represent its own essence. In science we find the phenomena of comparative science, like for example cybernetics introduces physics and psychology for the comparative study of 'control' systems represented both in the brain and nervous systems as well as in the mechanical or computerized information- and control systems. The consequences for the possible architectural developments could be investigated by tracing parallel meanings with other sciences and these may be the human, natural and social sciences and the arts.

Architecture, like philosophy (and for that matter, biology and physics), is perpetually verging on, irresistibly drawn to its own virtualities, to ever-increasing loops of uncertainty and immanence that its own practices engage and produce. The future of each discipline requires that each open itself up to reconsideration of the virtual and the promise it holds for newness, otherness, and divergence from what currently prevails. Space is understood, according to Deleuze as a multiplicity that brings together the key characteristics of externality, simultaneity, contiguity or juxtaposition, differences of degree, and quantitative differentiations. Space is continuous, infinitely divisible, static, and always actual. Space in short is the milieu of things, matter, identities, substances, entities that are real, comparable, and calculable. Duration, by contrast, is a multiplicity of succession, heterogeneity, differences in kind, and qualitative differentiations. It is continuous and virtual. According to Henri Bergson, space could be conceived, instead of being the pure medium of actuality, as the field for the play of virtualities: a kind of mental diagram.

Knowledge, expressed within the context of this conference, as a field of architecture and human sciences, natural sciences, social sciences and the arts, can be placed both against the architecture of the actual (existing as real) and the architecture of the virtual (not yet realized as real). It is this virtual

aspect of architecture that precedes the real and holds the promise for newness and otherness, by difference. It is difference that is primary in the process of actualization – the difference between the virtual from which we begin and the actual at which we arrive. This means that the virtual requires the actual to diverge and to differentiate it. The virtual is the realm of productivity, of functioning other than the plan or the blueprint. This is the spark of the new that the virtual has over the possible: it is the capacity for generating innovation through an unpredicted leap that the virtual brings to the actual, the capacity of the actual to be more than itself, to become other than the way it has always functioned.

The virtual is potential reality. It is the next move.

2. The science of art rather than the art of science

There is little doubt that there is a consistent body of architecture and critical thought that exists outside of mainstream architectural discourse. Space is an object of knowledge. Knowledge is the subject for research and enquiry. The field of architectural enquiry is a complex matrix of operations and forces. This process may transgress the limit of architecture. The 21st century has started in the same manner exactly a century after the optimistic visions of a Futurists' utopian and their cathartic attempts opened the way to a successive generations of 20th century avant-garde designers, armed with Utopian visions. Innovation requires the testing of new ideas, beyond continuity. Architecture is one of the last surviving residual conditions of Classical thought and Enlightenment. The collective convergence of numerous developments in science, technology and globalization, signifies, for the first time in history the hybridization of all the components of the modern era.

The digital evolution and virtuality not only is upsetting the prescribed characteristic of architecture, but also has become an integral part of its generic process. Digital technology has been implanted in the nature of architectural design. An additional attribute to the nature of architecture has been found, that of "life engineering".

Modernism always provided an open field of ideas in the clarity of space, materials and light. The characteristics of the new virtuality dissolve in an ambiguous hybrid. Space is never neutral.

It is not about conditioning the design, but designing the conditions. Derrida supports the need to "contaminate" architecture. It is necessary to acknowledge the heterogeneous nature. By engaging with this theoretical and technological debate traditionally perceived as being "outside" its domain, architecture may become, paradoxically, rigorous.

3. Knowledge transgressing the limit

In the past, architecture rarely transgressed its limit, at least in terms of its physical and tectonic nature. The wish to transgress remained a desire rather than reality. Transgression does not deny the principle of limit. The existence of a limit is a prerequisite for the definition of transgression. Likewise a limit is not a limit unless it can be transgressed. According to Foucault:

Transgression is an action which involves the limit, that narrow zone of a line where it displays the flash of its passage, but perhaps also its entire trajectory, even its origin.

Therefore transgressing the limits may encourage the expansion and reconsidering of the position of the limit itself. Therefore the issue here is not so much about transgression or overstepping the limit, as much as transplating it. What is in question here is the invention of "new relations, in which the components of architecture are broken down and reconstructed along other axes". These axes are now integral part of the state of architecture. The "first" concern will no longer be to organize space as a function. By pushing "architecture towards its limits", a place will be made for "pleasure" and architecture possesses the characteristic of the image. The more architecture expands, or negates its nature, the more it also contracts and embraces other things. An inherent oxymoron of dualities. Architecture is never unitary. As Foucault said:

We are in the age of the simultaneous, of juxtaposition, the near and far, the side by side and the scattered.

On another note, "Space may be the projection or the extension of the physical apparatus", Freud noted. In an essay, later published as a chapter of *In/Different Spaces*, Victor Burgin emphasized the specifically psychological character of modernist space. A space would be a result of introjection or projection - which is to say, a product of the thinking and sensing subject as opposed to the universal and stable entity envisaged since the Enlightenment. What this also implied, as Burgin developed, was that there existed a spatial unconscious,

susceptible to analysis and interpretation. Space is never universal, but subjective. Digital space is not mimetic or literal, but referential. What the new digital spatialities have rediscovered is the unconscious of urban space.

4. The modeling abstract machine: architecture as research

The experiments in morphogenesis are based on an abstract formal system that is autonomous and deterministic once the rules are set and defined. The emphasis of the exploration is for morphological complexity whereby the construction and selection of rules that produce specific effects is motivated by aesthetic and plastic sensibilities. For the first time, architecture is genuinely searching for complexity of this formal type in order to keep in touch with that of the city of the networks and systems and the intricacy of culture and vagueness of globalization. This abstract machine therefore calls into question traditional methods of architectural design and proposes a design process in which the architect becomes an inventor or constructor of formal systems as well as takes on the role of a navigator of the system's behavior over time. In a fast production consumable architecture, very few items are defamiliarized.

In many ways, the aesthetic experience, according to Benjamin, consisted of keeping defamiliarization alive, as contrasted to its opposite - familiarization and security. I would like to point out that Benjamin's analysis corresponds exactly to the historical and philosophical dilemma of architecture. Is the experience of architecture something that is meant to defamiliarize - let's say, a form of "art" - or, on the contrary, is it something that is meant to be comforting and homely. Here, of course, one recognizes the constant opposition between those who see architecture and our cities as places of experience and experiment, as exciting reflections of contemporary society - those who like "things that go bump in the night," that "deconstruct and self-destruct" - and those who see the role of architecture as refamiliarization, contextualization, insertion; in other words, those who describe themselves as historicists, contextualists. This widening of the gap may prove to be profitable, given certain economic and social advancements. It will eventually soothe and bring an ultimate seamless fusion, without compromising or losing the intensity and even controversy, even though it is still fragile and there are no signs of it happening yet. This "weakening" of

architecture, has altered the relationship between structure / image and structure / skin. It is interesting to debate that which is always discussed in architectural circles, namely, structure versus ornament. Since the Renaissance, architectural theory has always distinguished between structure and ornament, and has set forth the hierarchy between them. In the contemporary discourse, this dichotomy has been eliminated.

The notion of the virtual can incorporate the diagrammatic practice as design strategy. Many architects and scholars today have adopted Foucault's and Deleuze's idea of the diagram as an abstract machine. Both have emphasized the notion of the "archivist" as a concept that can characterize the way in which we manoeuvre about our surroundings, which cannot assume a true form but instead a collection of relationships between forces. The archivist works not only vertically and horizontally, but also in diagonal dimensions, cutting across all levels and links; the archivist can explore a collection or series of points and at the same time discover that some of the points diverge and therefore must be redistributed within a new space and time. This sort of "diagonal dimension" can be activated with the help of the diagram. As an "abstract machine", the diagram does not distinguish between notions such as content and expression – it is inter-social and in a state of constant evolution. It is an idea-gram. Its purpose is not to represent any existing world, but to produce a new kind of reality. The diagram must not be used as a metaphor or reference, but as a generator. In this context, a diagram may easily be turned into a system of total prediction and control. What is thus required is a dynamic architectural system, which can adapt itself to changing circumstances, the equivalent of a 'trans-formal' space, a space that has 'overcome' form. Here we are concerned with the investigation of a heterogeneous, fluid, smooth space, the development and representation of this spatial fluidity will be enabled by the generative precision and virtual representation of the computer.

This generates the development of the urban environment as a dynamic space of flows and has rendered the wall in the traditional sense into a permeable 'smart' zone where continuous topological surfaces connect exterior and interior spaces, functional programs and infrastructures. Think of the development of the following typologies and the dynamic complexities or expertise necessary in the design of airports, mega-malls, corporate office spaces, department stores and theme hotels.

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The Emerging Features of the Information-Age Architecture

This paper investigates how information-age technologies and their associated thought frameworks influence architectural design resulting in shifts in design methods which, though not consistent and hegemonic, distinguish information-age architecture from its predecessors. Though having some of their roots in modernist traditions, the new design attitudes do not necessarily indicate revolutionary breaks but changes are still remarkable enough to signal a new era in architectural design. Information-age architecture, however, is not seen here as an architecture simply illustrated by computers. Nor any work designed in the information age does necessarily absorb influences of this age. The present paper thus focuses on those works whose association with the information age go beyond that of contemporaneity with the age or using computers for illustration of otherwise conventional designs.

The main influences of the information age on architecture can be categorised as:

- a- Qualities of information such as immateriality and transience, as well as shifting from linear to 'networked' relationships and communications
- b- The new sciences and technologies, their complexity and the shift from 'hard' physical sciences to 'soft' biological sciences
- c- The post-humanist viewpoint in which human perception and individual creativity are no longer the only criteria for the authenticity of the work

Qualities of Information

The immateriality and instability of information affects the way we think about architecture because architecture, unlike information, is conventionally a stable and material entity and

stands against time. As Paul Virilio argues stability is now less important than speed. Matter, he says, has so far been defined by mass and energy—to which, however, we must now add information. Information now counts for more than mass and energy, and works of architecture are gradually losing all their traditional elements and becoming screen-like façades [Fig. 1]. He argues that virtual reality tends to extend the real space of architecture toward virtual space, which is no longer subject to gravity but to electronics, electromagnetics, waves, and electrical currents. He believes that material entities such as architecture are now 'disappearing' against this context of immateriality and speed. This of course does not mean that they are being eliminated, but their existence is no longer strongly felt (1998: 186). The emergence of an architecture described as 'liquid' by Marcos Novak and Lars Spuybroek, reflects this immaterial information-like quality in architecture. Novak (1993: 225) describes liquid architecture as a dematerialised architecture that is no longer satisfied with only space, form, light and all other aspects of the real world. For Spuybroek (1998: 50), liquid architecture is not merely the mimesis of natural fluids, but first and foremost a 'liquidising of everything that has traditionally been crystalline and solid in architecture'.



Networking and information flows also influence information-age architecture. The idea of a networked architecture in which non-linear flows of information, rather than solid, static objects and linear relationships are important, influences architecture in a variety of ways. Kenneth Frampton describes this shift towards networks and information flows in building in statistical terms, comparing the costs of fixed, material elements with those of removable, non-material installations. He observes that we are increasingly spending more on mobile partitions, networking, and technical devices than the building's structure and façades (Puglisi 1999: 58–9). Also William Mitchell mentions how the new immaterial informatic networks are changing the modes of organising buildings and urban spaces (1995, 1998).

The new sciences and technologies

The shift of the scientific paradigm from physics to biology, combined with the shift from mechanic to informatic technologies, changes the techno-scientific worldview and hence the influences the current techno-scientific worldview have

on architecture: the paradigm shifts from a linear, relatively less complicated, more deterministic one to a complex, non-linear, emergent one.

The first response to new sciences and technologies remains in the realm of the worldview the work represents, using a formal language of 'undulating movement, of surprising, bellowing crystals, fractured planes, and spiralling growth, of wave forms, twists and folds' (Jencks 1997: 13). The task of architecture is thus to aestheticise and represent the new complex worldview in architecture, and architectural forms as complex, undulating, fractured and surprising to reflect this.

The other response is to adopt the model of living systems. Scott Lash (2002: 13) observes how naturally we think in terms of the notion of 'forms of life' nowadays, and argues that this has not always been the case. He quotes Michel Foucault (1966) who sees 'forms of life' as a nineteenth- and twentieth-century substitute for the earlier notion of 'classification of species' in which organisms and their functioning were not the subject of study. The version of the notion of 'forms of life' more associated with the information age is the one in which 'as sense-makers, we operate less like cyborgs than interfaces' of organic and technological systems (Lash 2002: 15).

In architecture the complexity of living organisms and their evolution may not only be represented by borrowing their complex forms, but also mimicked in the building's behaviour. Evolutionary organic growth can also be used as a model for design processes. The idea of a living system with self-organising abilities, formed by genetic algorithms and responsive to its environment, inspires some information-age architects. It leads to algorithmic models of design, or to buildings that can learn from their environments and users, and adjust themselves accordingly. An example is John Frazer's experiments with what he calls 'evolutionary architecture'. Frazer believes that architecture lives and evolves and that the role of the architect is not to design but to catalyse a building or city and then respond as they evolve. Architecture for him is a form of artificial life, subject to the principles of morphogenesis, genetic coding, replication and selection. Evolutionary architecture thus 'investigates fundamental form-generating processes in architecture, paralleling a wider scientific search for a theory of morphogenesis in the natural world' (1995: 9).

The third response is the application of new technologies in architecture. The necessity of bringing technology into the

context of architecture is not new and has been discussed by French rationalism and early twentieth-century modernism. But whilst the earlier thought looked at the technologies mainly based on mechanical sciences and mass production, the recent version seeks its models in the 'soft' technologies of the information age. For example, Guy Battle and Christopher McCarthy argue that architecture is still traditional in the sense that it is not using newly available technologies, and that architecture is still ignoring mass production, let alone the electronics and molecular revolutions (1993: 27). They criticise the architectural profession for defending individual, popular, artistic methods and giving an illusion of technical performance that is '*artful but tech-less*', and seek an architecture which has more interaction with the natural environment and uses new technologies.

Neil Spiller describes the current design and architecture of our built environment as '*stupid*' and believes that the inertness of thought and practice has been prompted by the inertness of the product, forcing architects to have a limited choice (1998: 95). He sees in nano-technology a potential to tailor artefacts to individual ergonomic criteria at the very beginning of their life, allowing buildings and objects to '*expand and contract and change ... in response to a variety of stimuli*' (101).

Post-Humanism

As early as 1976 Peter Eisenman signals the emergence of post-functionalism in architecture, which can be seen as a harbinger of a post-humanist attitude in architecture. He observes that during the past five hundred years humanist architectural theories have oscillated between concerns for programme and for form, but these are both different aspects of the same humanist viewpoint (80–1). He sees twentieth-century functionalism as '*no more than a late phase of humanism, rather than an alternate to it*', and hence as no direct manifestation of the '*modernist sensibility*', which is based on the fundamental displacement of humans. He argues that humans are no longer viewed as originating agents, and that objects are seen as ideas independent of humans. In this context,

'man is a discursive function among complex and already-formed systems of language, which he witnesses but does not constitute. ... It is this condition of displacement which gives rise to design [models] in

which authorship can no longer either account for a linear development which has a 'beginning' and an 'end' ... or account for invention and form' (82).

In Eisenman's view, the relationship between an individual and his or her physical environment breaks with its historical past in post-humanism in terms of both viewing man as a subject and the ethical positivism of form and function. Thus the central role of individual creative mastery over the work, and of human perception as the sole criterion for architecture's authenticity, becomes questionable in post-humanism.

According to Katherine Hayles (1999: 288), if post-humanism is a recourse to the desire for mastery, then

'emergence replaces teleology, reflexive epistemology replaces objectivism, distributed cognition replaces autonomous will, embodiment replaces a body seen as a support system for the mind, and a dynamic partnership between humans and intelligent machines replaces the liberal humanist subject's manifest destiny to dominate and control nature'.

In this sense a post-humanist architecture tends to be emergent, reflexive, and not simply based on human perception. It also tends to share its creativity with machines.

Architects respond to these influences in a variety of ways by dematerialising buildings, using the model of information media in building, using models of computer data-processing in design, making buildings more interactive, welcoming complexity, and also using new potentials offered by computers to establish an architecturally-oriented model of investigation and communication. The rest of this paper briefly looks at these attitudes.

Dematerialisation

Information-age architecture takes the modernist attitude towards transparency and continuity of space a step further and associates architecture with the immaterial quality of information. Activities and connections are '*wrapped*' in light and transparent material envelopes, where the elaborateness of materials and structural order are less emphasised and building surfaces tend to become invisible and ambiguous skins which blur, rather than articulate the architectural object and the boundaries between inside and outside.

Examples of such dematerialised skins can be seen in Jean Nouvel's Fondation Cartier building [Fig. 2] and Toyo Ito's Sendai Médiathèque [Fig. 3]. Nouvel (1994: 37) acknowledges the fact that the permanence of architecture is part of our sensual legacy, but attempts to destabilise this,

'playing with the effect of turning something that has been fatally solid and stable into something fragile and uncertain' as a 'strategy to explore the possibilities opened by contemporary architecture'.

Ito (1997: 140) sees the surfaces of building as 'membranes', which must be soft and flexible, like our skins, and similarly prepared to receive information from their environment:

Architecture clad in such a membrane should rather be called a media suit. Architecture is an extension of clothing and is therefore a media suit. It is a transparent suit meant for the digitalised and transparent body. And people clad in the transparent media-suit will settle in virtual nature, the forest of media. They are Tarzans in the media forest.

'Medialisation'

As the ever-increasing flow of information calls for more media to deliver information, architects adopt the model of information media for the building and reduce the weight of the architectural object in favour of a stronger presence of information display.

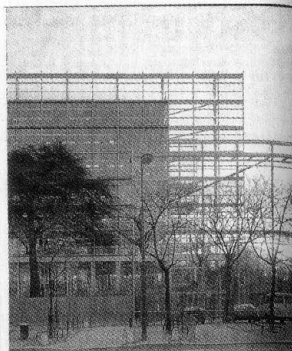
Alicia Imperiale (2000: 22) mentions Herzog and De Meuron, Nouvel, and Bernard Tschumi as contemporary architects who think of buildings as new urban 'transmitters':

'façades get conceived as image-sensitive film, as skins with an extraordinary capacity to communicate that might bring architecture into direct competition with the cinema or television' (22-3).

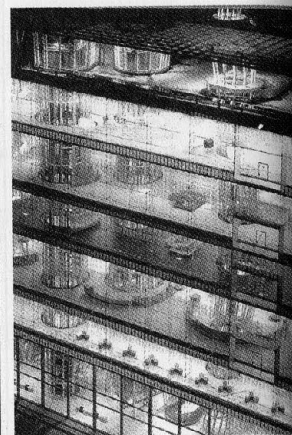
She shares the view that skins of buildings are becoming

'programmable surfaces, photosensitive membranes that narrate, design and inform the spatial organisation of the volumes and interpret their functions: information loaded walls that seduce'.

Luigi Puglisi (1999: 10) calls this tendency towards media in architecture 'multimediality': the building's ability to become an



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'organism' capable of conveying messages using various media integrated into its fabric. The building becomes a screen that radiates lights, colours, and sounds, and at the same time communicates information.

An example is Coop Himmelblau's original scheme for the UFA cinema centre in which 'the films are not only shown in the interiors of the auditoria but on one of the exterior walls'. The solid material, they say, will thus be 'charged with the fluid lightness of projected images' (Coop Himmelblau 1994: 54). Scattered cinematographic images were projected on external surfaces, making them part of the architecture's overall configuration [Fig. 4]. Another example is Nouvel's Galeries Lafayette building in which changing trademarks replace fixed ornamental motifs on the façades [Fig. 5]. The design for the I.T boutique in Hong Kong by Axiom Oval [Fig. 6] is another example. Its main spaces include no fixed elements but display screens whose images regularly change; storage, changing rooms and cash desk are all hidden, and the clothes on sale are overwhelmed by advertising images (Axiom Oval 2001: 58-9).

'Data-based' Architectural Design

Another design attitude is the application of the model of computer data-processing for architectural design. Data taken from the project site or programme is analysed and developed into architectural design, with or without the aid of computers. Architectural forms are thus the outcome of data-handling, with architects' role in the process reduced to that of process organisers.

Brett Steele (1999: 56-7) traces back these design methods to the Bauhaus and Le Corbusier, and argues that these older versions of data-based architecture sought 'methodological consistency, repeatability, and certainty', whereas today's methods offer new possibilities in the opposite direction: 'experimental organisations of space unexpectedly generated by various forms of dynamic systems describing our occupations of space today'.

An example of these methods is OCEAN NORTH's proposed

Channelling System (CS) in which they define a set of generic categories, quantify them in matrices laid on project site plans, and then map these data sets by computer. Forms then emerge from these maps, as, for example in their competition entry for the Töölö football arena: the form is the outcome of overlaying different maps of movements and topography around a football pitch [Fig. 7] (Bettum and Hensel 2000: 40–2).

Responsiveness

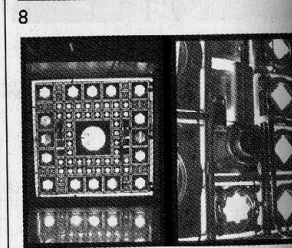
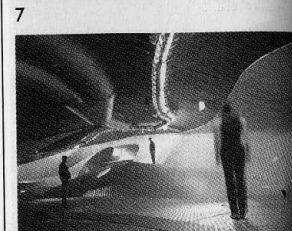
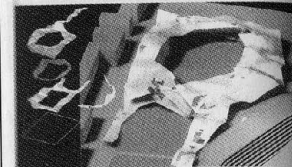
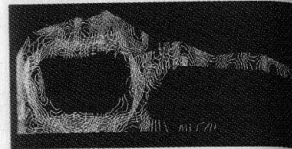
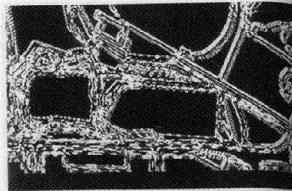
Using both models of interactive machines and interactive technologies and networks, buildings are designed in such a way that they are capable of adjusting themselves to the movements and changes of their environments and occupants. This can be the first step towards intelligent buildings which can learn from their environment.

An example of responsiveness to the building's occupants is NOX's FresH2O eXPO building [Fig. 8] in which optical effects and illusions are created in response to visitors' movements. Also Nouvel's Institute of the Arab World [Fig. 9] and Ito's Wind Tower [Fig. 10], are examples of buildings which respond to their environmental changes. The former controls the amount of incoming light according to its intensity whilst in the latter lighting constantly changes in response to ambient, air, sound, and noise conditions (Puglisi 1999: 23).

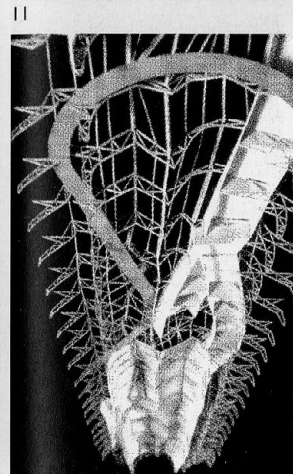
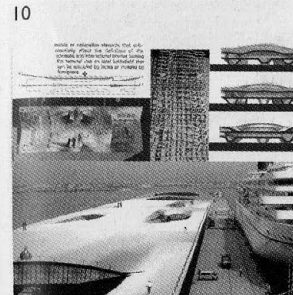
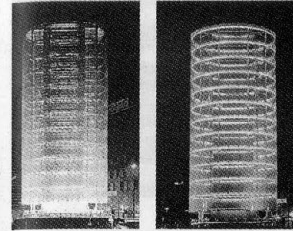
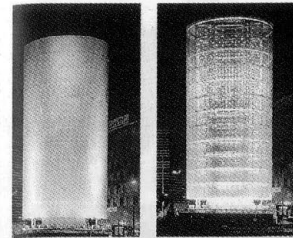
Complexity

As an antithesis of the mainstream modernist reductivism, new forms of complexity are sought by architects, which are different from those used by earlier generations of anti-modernist architects. The difference is firstly in that they reject historical references, and secondly in that they do not confine complexity to formal complexity. The term complexity sometimes refers to the design process, and sometimes to the building's capability to learn from its environment, though it can also refer to the complexity of forms.

An example of this is 'landform' architecture in which, as Christian Pongratz and Maria Perbellini mention, undetermined and unexpected relationships with the site appear



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without any emphasis on an architectural language, typology or material. According to them the evolution of models of flexibility has led to a 'new plasticity in the exploration of form', in which the original Deleuzian concept of the 'fold' has progressed through continuous transformations into the forms of a curved landscape (2000: 26–7). Gilles Deleuze sees the curvilinear universe as a series of endless little vortices each of which includes yet more vortices:

Matter ... offers an infinitely porous, spongy or cavernous texture without emptiness, caverns endlessly contained in other caverns: no matter how small, each body contains a world pierced with irregular passages, surrounded and penetrated by an increasingly vaporous fluid, the totality of the universe resembling 'a pond of matter in which there exists different flows and waves'. (1993: 17)

According to Pongratz and Perbellini, there is a fluid variation of difference between the constituting forms in the architecture of complex forms: 'this smooth and continuous mixture cannot be reduced to its components parts since it is not a homogenous form and appears rather as one aggregate' (2000: 26–7). Examples of landform architecture are the competition entries by Foreign Office Architects (FOA) [Fig. 11] and Reiser + Umemoto [Fig. 12] for the Yokohama port terminal; both developed out of softly-folding and changing fragments of surface.

Architectural Design as a Mode of Communication

The proliferation of media and the growing power of computers in producing new forms and images have also boosted interdisciplinary and experimental practice, which can mainly be seen as a mode of communication rather than directly realisable architecture. Again, what is new is not the genre itself but its growth alongside the pragmatic pursuit of architecture as a critical and experimental mode of investigating, and communicating architectural and urban issues.

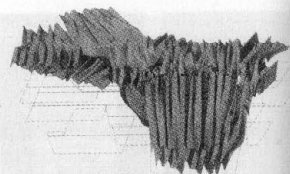
For a group of architects including Karl Chu, Greg Lynn, and Novak these investigations are mostly developed in cyberspace exploring new methods of form-generation driven or assisted by computers. Chu experiments with genetic models of generating forms using computer programs for the design process [Fig. 13] (Pongratz and Perbellini 2000: 33). Lynn's experimental Embryologic House scheme [Fig. 14]

attempts to derive the most formal varieties possible from a set of elements and propose a new formal language whose elements are not conventional walls, doors, and windows (Lynn 2000: 31–5). Novak proposes 'liquid architecture' as an experimental method to leave architectural stereotypes behind by playing with data in the computer and generating form as a result of it [Fig. 15] (Pongratz and Perbellini 2000: 75).

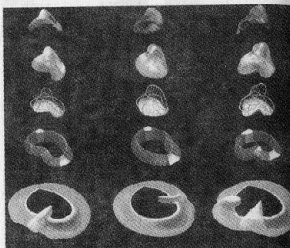
One can see these developments as signalling a new kind of modernism, different enough from its predecessors to require a different title. The optimism about capabilities of information-age science, technologies, and networks has its parallels with the modernist optimism about the mechanical-age science and technology. But the utopianism of Modernism and the belief in architects' capability to radically change society have gone. What is there instead is the capability of information-age technologies and thought to realise some modern-design dreams.

Illustrations:

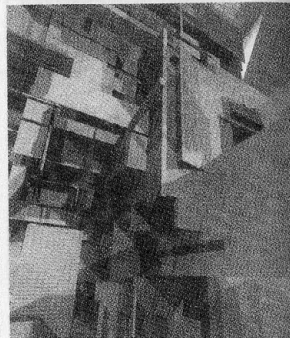
- 1 Hong Kong and Tokyo. Building surfaces and street silhouettes are so dedicated to signage that few architectural surfaces remain free of it.
- 2 Fondation Cartier, Paris (Jean Nouvel, 1991–4). The two transparent membranes do not conceal the interiors but blur the edges of the architecture by not matching each other: the external membrane exceeds the main building volume.
- 3 Sendai Médiathèque (Toyo Ito, 1997). Glass surfaces do not fill the voids in modular structural elements. The building is instead 'wrapped' in glass, leaving the appearance of the building ambiguous and floating.
- 4 UFA Cinema, Dresden (Coop Himmelblau 1998).
- 5 Galeries Lafayette, Paris (Jean Nouvel, 1996). Trademarks are used as ornaments.
- 6 I.T Boutique, Hong Kong (Axiom Oval, 2001). Images on display screens are the main items on show.
- 7 T__L Stadium (OCEAN NORTH, 1997). The form is the outcome of superimposing three mappings.
- 8 FresH2O Pavilion, Neeltje Jans, the Netherlands (Lars Spuybroek, 1997). Lighting effects on the floor respond to people's movements.
- 9 Institute of the Arab World, Paris (Jean Nouvel, 1981–7). Window apertures respond to the amount of incoming light.
- 10 Wind Tower, Yokohama (Toyo Ito, 1986). Lighting responds to changing environmental conditions.
- 11 Yokohama Port Terminal (Foreign Office Architects, 1995). Landform architecture.
- 12 Competition entry for the Yokohama Port Terminal (Reiser + Umemoto, 1995). Each structural module slightly changes so that the



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overall form is a smooth landform comprising non-repetitive modules. 13 Phylux 6 (Karl Chu, 1999).

14 Studies for the Embryologic House (Greg Lynn, 1998).

15 Transarchitecture (Marcos Novak, 1997–8).

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Hani Asfour

Parallel Lines

The Meeting of Aesthetic and Network Theories in Post-Critical Design Practice

There are three parts to this talk. In 'Convergence' I will try to show how economic and technological advances are very much part of the fabric and a product of postmodern cultural life. In 'Reed's Law' I will explain what group-forming networks are and why they are an important development. In 'Practice' I will show several examples of how fluid group forming networks can impact our world and the way we practice architecture.

I-Convergence

I would like to start this talk by responding directly to the question posed by the conference: that criticism is possibly being '*suspended in the face of major technological and economic challenges*'. I find this particular articulation odd since I am of the firm belief critical theory and network theory—explaining recent '*technological and economic challenges*'—are merging thought processes that have evolved in parallel. It would be extremely worrisome for architectural criticism to be suspended at this critical juncture, when cultural and economic practices are converging. It is as if to say theory and criticism are isolated fields not related to advances in economics and technology; and that economics and technology have developed independently bereft of intellectual discourse. Technology and economics have always driven markets, but like architecture, they are very much a product of our cultural dialogue.

Relearning space

Technological advances in design are in desperate need for critical assessment, especially by architects who intimately understand space and the city. The dangers for '*suspending*' criticism are obvious to anyone who has languished in a

shopping mall, got stuck in an airport lounge, or faded away in a hotel atrium. Observing that we have not yet learned to recognize the supermodern world we inhabit, Marc Augé suggests we 'have to relearn to think about space.' Our basic misrecognition compounded with our inability to translate technology into socially constructive environments will continue to produce banal spaces. Instead of building new spaces examining the integration of communication tools for our social needs, most new spaces are designed to celebrate the latest surveillance or obnoxious entertainment appliances.

Technology as the Other

Ironically, it appears that we treat technology in space as the prototypical Other—but without the enlightened, critical approach we developed in the past decades. We tend to shun it, dismiss it, or treat it as the exotic in our midst—objectified, admired, or repulsed. Rather, and learning from the best practices of postmodern discourse, we ought to embrace the difference this alien force offers, even if it means the ultimate dismantling of our systems. It is as if we have become paralyzed, unable to formulate space or generate discourse that does not objectify the collision or predict our annihilation. Paul Ricoeur in another context describes this kind of confrontation, this sense of not knowing what to do, as a lull:

No one can say what will become of our civilization when it has really met different civilizations by means other than the shock of conquest and domination. But we have to admit that this encounter has not yet taken place at the level of an authentic dialogue. That is why we are in a kind of lull or interregnum in which we can no longer practice the dogmatism of a single truth and in which we are not yet capable of conquering the skepticism into which we have stepped.

It seems most architects practicing today look at advances in communication technology with skepticism. We are taking the wrong approach by distancing ourselves from these disruptive forces. Of course technology is to space not what Glasnost was to the Soviet Union or even a clash of civilizations. It is imperative however that we understand this force of change—which is perhaps not as rapid as some would like to think, even though we have witnessed some major disruptions—and not succumb to its charms like an orientalist at an indigenous ceremony.

Marginalization

At best, architects tend to fetishize recent technological devices without understanding their social potential by reducing their expression into the ubiquitous lobby screen or, formally, into meshed geometries and curvilinear surfaces. The rise of new forms clearly announces a paradigm shift. However, we should be careful to avoid a superficial understanding of this shift and repeat the innocence of our predecessors as they exploded geometries in an attempt to represent deconstructivist thought. While new forms may emerge, if these forms do not enhance our new social awareness, they become mere spectacles and compliant instruments.

Our responsibility, rather, is to understand the deeper impact of always-on communication and its political expression of space. Designers need to adopt the convergence of technological space with social space as part of their critical practice to avoid further complacency and marginalization. As our society is increasingly dependent on wireless networks, invisible or miniaturized devices, and always-on communication—think of the "missed call" phenomenon in Lebanon on which we have become so dependent to organize our life. The disruptive nature of the supermodern machine has merged with our physical body, increasing our autonomy and mobility and at the same time our desire to be connected with others. Marginalized communities like peace protesters, urban youth, and NGOs have all used these same networks to organize spontaneously and affect positive change to a considerable degree. Smart mobs have caused governments to fail and corporations to restructure their practices. So why can't architects take on disruptive technology and use it for creating spaces of resistance?

Affinity and resistance

It seems design practice chooses to ignore or fails to understand the intricate affinity between technological advances and postmodern thought. I think this is at the root of our paralysis as architects facing emergent demands by the market for 'smart' spaces. The Defense Advanced Research Program Agency of the United States Defense Department developed the precursor to the Internet in the early 60s at around the same time urban sprawl and the superhighway networks set out to disperse the modern metropolis. Darpa

in fact developed this form of distributed communication as another way to resist that ultimate modern paradigm, nuclear targeting. It would be difficult to imagine hypertext as the mainstream mode of communication before the Second World War, as long as we believed in the supremacy of the nihilistic *tabula rasa*. Le Corbusier for instance would have probably abhorred instant messaging as much he despised children or the premodern fabric of Paris.

Failure to understand

At the most basic level the Internet and pervasive computing are a direct result of our poststructuralist ability—and willingness—to think in a textual, multilayered manner. And more importantly, architects, steeped in the critical theories of the 70s and 80s, are more than capable in operating within such nondeterministic paradigms. Object oriented programming, hypertext, the open source movement, extended markup language (XML), are all a result of heated arguments within the computing community consciously aimed at disrupting the status quo and old authority. Like cultural critiques developed in the past decades, the tendency is to advocate the dismantling of authorship and hierarchies, increase heuristic readership and peer contribution, explore relations as textual and nonlinear, encourage plurality and collaboration, and build communities of resistance.

The theoretical work that evolved in linguistics, cognitive sciences, history and political science has allowed the convergence of many forces that parallels the work of the technologists and the network theorists. Working amongst programmers I discovered the same kind of discourse progressive architects entertained while practicing architecture. Communities of resistance amongst the software developer community in fact tend to be much more proactive than architects, constantly creating ways to resist monopolies through code sharing and open source movements that rely on networks to communicate and organize. Perhaps the failure of architectural practice to participate in the affirmative production of networked space is our increasing desire to be hypercritical about corporate production (the realm of economic and technological advances), leaving the field of spatial connectivity mostly to compliant designers, who have the unenviable talent of proclaiming their progressiveness by placing monitors in corporate lobbies displaying dulling brand

affirming propaganda. If there are architects out there who have successfully merged technological and spatial networks in a critical manner, they are too few and isolated.

Some like the formidable Diller and Scofidio are at once confirming and deconstructing the most telltale sign of ubiquitous computing—surveillance—with minimal invention within the physical space. In the Brasserie, the treads of the main stairs leading into the seating area are longer so people take their time on the steps and become the slow-motion subject of the natural—vs virtual—gaze of other customers. This seemingly nominal architectural gesture is an expression of technological power pervading the space of the physical. Rather than explore an alternative, affirmative subversion of this power, the stairs, and the monitor display above the bar, simply exacerbate the negative and obvious alienation of supermodern space. Regardless of its sublime intelligence, this kind of work has not yet reached the scale of disruption, critique, or reaction—or even widespread popularity—that the distributed and empowering music exchange platforms like Napster and Kazaa have been able to achieve in a very short period.

II-REED'S law

Point of Entry

It is my hope that in the remaining time I will be able to clarify a potential point of entry for architectural practice to engage in the production of networked place from a social dimension, and to bring in the lessons of critical theory (such as plurality, resistance, difference) into today's practice. First of all we have to understand the social impact of technology—what technology can do, not how it does it—and understand its economic imperatives, and then to translate its benefits into an architecture of change. Then, in the last section I will show how understanding this '*social life of information*' has major impact on at least three areas of concern: the way we organize our practice, the contracts we sign, and the form of the spaces we design.

Network Basics

To understand or be able to predict the future of society, we

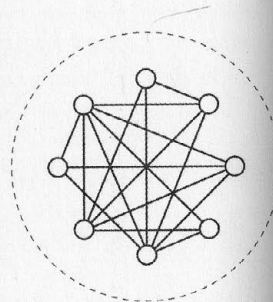
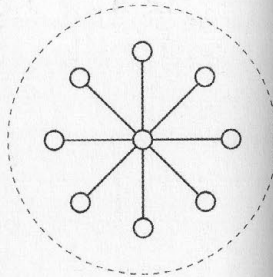
have to look at what the Economist calls the 'mathematics of networks'. What is common to the smart mobs in the Philippines, toothers on London trains, the I-mode thumb tribes of Tokyo, the botfighters in Helsinki and Stockholm, the multitude of Beirut missed callers, and the millions of peace protesters simultaneously gathered across Europe, is that behind these rapidly rising social groupings is an elegant 'mathematical imperative'. The *Economist* rightly predicted in 2000 that 'the new mobile high-speed communication and wireless Internet technologies will further accelerate the creation of fluid new groups.' 'Groups' is the key word.

Sarnoff's law

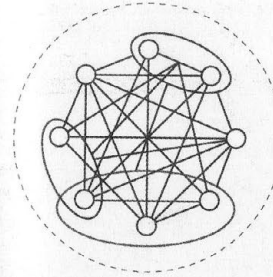
Let us start with a brief history of network theory, which is helpful here to set the context. The most basic model is the broadcast system, the classic hub-and-spoke, or centralized distribution network. We all intuitively understand this system from watching television or receiving radio and other broadcast information. Sarnoff's Law, named after the chief of RCA in the 70s, states that the more viewers join a network, the more valuable the network becomes. $V=n$: the more 'n's there are the higher 'V' is going to be. It is a directly proportional relationship, where V is the overall value and n the number of users, or nodes in the network. Cable television took that notion further and used subscription as a model based on this simple discovery to challenge the way we consume televised content. [Fig. 1]

Metcalf's law

In the 1980s when Bob Metcalfe, founder of 3Com, invented the local area network (LAN), familiar as the 'one-to-one' network, the building block of computer networking, he showed that the value of a decentralized system generates much more value than the hierarchical model of Sarnoff. A simplification of Metcalfe's law states that $V=n^2$ where the value of a distributed network is squared each time a new node is introduced. Moving from a top down broadcast model of communication to a peer-to-peer network, the Metcalfe model heralded the accelerated adoption of networked computing in 1980s and anticipated the arrival of hypertext and email as its mode of expression. Markets



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quickly adapted their systems to profit from this increased value, such as the rapid rise of keiretsu and other collaborative ventures like Wintel. This law made visible the disruptive potential of adopting distributed and decentralized systems, which helped the rapid proliferation of the PC and other new paradigms of communication, commerce, and corporate organization. [Fig. 2]

Reed's law

What the Internet brought that was lacking from the telephone and all other communication media is our ability to form groups. Making this observation, David Reed who is one of the inventors of the TCP/IP Internet protocols, a professor at MIT and currently at HP labs, set about to develop a mathematical model to understand this emergent behavior. A simplified version of Reed's Law states that $V=2^n$. It shows that when people in a decentralized system can communicate with individuals and groups as individuals or part of a group, the value of the network increases exponentially. Using the Internet we are able to form our own groups in an ad hoc, need-based manner, and these groups are fluid and temporary. We can and do communicate with more than one group or individual at the same time, without central authority or controls. According to Reed, new group-forming capabilities, such as reply to all, chat rooms, auction hosting, buddy lists,

enable, enhance, and sustain huge numbers of member-organized groups. The key thing about these groups is that they are freely formed—though various institutions, services, and organizations enable the group-forming, the choice of which groups are formed, who participates, etc is entirely up to the members who organize the group, and the purpose of each group is shaped largely by some common needs of its members.

Email, mobile telephony, texting, and networked communication have not only increased interaction between people and groups, but is also forcing new regulations, telecommunication corporate shakeups, while at the same time increasing overall value to users. As these forces are causing major changes in the way we watch television and talk to each other, surely they must have an impact on the way we practice architecture and the way we design spaces. [Fig.3]

Information vs Knowledge

To illustrate the power of group forming networks, think about the way we learn and share ideas. In the broadcast model, where learning is centralized, we tend to know only those things that are relevant to our needs, and data is readily accessible only through limited power structures. In the information age, epitomized with Metcalfe's LANs, we tend to think that we could know everything since our access to raw information became faster and easier. Today, with immediate access to experts and sources of knowledge at any given moment, we tend to say, 'I don't know, but I know where to get that knowledge.' We seem to prefer to have real-time access to knowledge and share that knowledge asynchronously through self-publication (blogs, personal web site, community groups, email) rather than hoard it as we become more and more collaborative in our communities and groups.

Fluttering

Perhaps the best illustration of this transaction comes from the 1999 film by the Wachowski Brothers, *The Matrix*, which most architects always seem to have seen. In the harrowing scene where Neo and Trinity in their attempt to rescue Morpheus end up on the roof of the skyscraper with nothing but a helicopter, Trinity connects by telephone with Tank, the group's operator in the real world, and asks him to download into her—for lack of a better term—the pilot program to fly the craft. Trinity's rapid eye fluttering as Tank downloads the helicopter pilot program belies the blissful buzz familiar to all of us when we are able to tap into our network to expand our knowledge and add value to our existence.

More examples

Let us look at other examples on how Reed's law can be applied in changing the way we consume, share, and design. Think about how we drink coffee. We pay pennies for a commodity like a bag of coffee beans but we are willing to pay top dollar for an 'experience' at an immersive environment such as Starbucks, Peet's, or Café Najjar. As we become more social, we move into environments that appear to add value to our experiences—and profits for the corporations who cater



this desire to their advantage.

Political discourse on democracy has followed a parallel pattern, from the dynamics of the agonistic space of homogeneity; through a liberal, or legalistic model most common today that shuns or absorbs difference (the epitome of which is President Bill Clinton's assertion to gays in the military, 'don't ask, don't tell'); and moving hopefully towards a more tolerant and discursive model that thrives on difference and constant change, the space of which we have yet to define convincingly. To design supermodern space, we have to recognize these distinctions of evolutionary democracy to even start thinking what this public space looks like, how we inhabit it and work in it. Understanding communication networks and using them responsibly could empower the discursive potential of different publics.

On the international level, nations need to adapt their approach for the acquisition of resources. Relying less on military power and moving away from colonialist adventurism towards unrestricted dialogue amongst peer nations and coalitions may prove to be the most effective means of sharing scarce global resources. Perhaps European, Russian, Chinese, and the global popular resistance to the Bush administration's '*momentum of inevitability*' towards the war in Iraq is also a cry for a much needed multipolar dialogue, that, if practiced, might yield higher value to all parties involved.

Even the way we interface with computing technology is facing a Reedian evolution, as we migrate from inscrutable massive machines towards the '*intuitive*' desktop computer, and most recently, the invisible and embedded devices we carry around and inside our bodies.

III-Practice

Gehry and the Mastermodel

Technology is a tool. There is no doubt about the instrumentality of advanced computer systems. But it is not enough to dismiss the power of new tools to understand their influence on our practice. Many years ago Frank Gehry adapted the Catia software system developed by Dassault Mirage to develop the design of fighter aircraft and missiles. Gehry preferred this tool amongst others for its ability to generate sinuous

three-dimensional form easily. The computer wizards in Gehry's office soon realized a more important capability: the ability to create a three dimensional model that allows easy collaboration across trades.

One of Gehry's ongoing (and noble) hopes is to bring back power to the architect. Gehry strongly believes that controlling form using advanced technology will allow the architect to reclaim the title of 'masterbuilder'. Not only is this nomenclature outdated but so is the model. Rather than regressing towards the Renaissance notion of the omnipotent masterbuilder, or reconfirming the expertise-driven modernist practice of the mastermind, genius architect, Gehry's technological innovations are bringing us closer to a Reedian expression of a future architectural practice thanks to collaborative software tools, many of which were first tried in Gehry's office, architects, contractors, clients, fabricators, financiers, insurers, and other experts can communicate freely and directly across legalistic barriers around a single, complex, and adaptable digital model.

The model itself is not a big deal, as most architects today work in digital formats. What is remarkable is that a model that is easily understood and modifiable by the various practitioners across trades allows all the users to come together around that model, without having to redraw the project each time a trade is involved. In other words, the 'mastermodel' allows the various experts to form ad hoc, task-based groups for each phase of a project. In this manner the architect can talk directly with the truss bolt manufacturer and jointly make necessary changes that are immediately registered on the mastermodel at any point in the process, and whose effect other project constituents can easily see as the work progresses.

For each phase of the project a new group forms, with new and temporary leadership emerging. As the project progresses, new groups appear and recede into the background, based on the tasks and expertise required for each step. The masterbuilder, rather than an embodiment of a singular architect, is in this way distributed amongst the trades and their subgroups. It is the mastermodel, in digital format, that allows all these trades to communicate, add, subtract, correct, edit, zoom in, zoom out, and engineer collectively—synchronously and asynchronously in the same geography or remotely—the project as it is built.

When the architect talks directly to the air conditioning manufacturer and when the truss engineer talks directly to the construction manager, and they all use the same mastermodel, the change in practice is exponential. According to Gehry's office, the MIT Stata Center was one of the first projects to fully adopt such practices.

The implications are immense, especially when it comes to issues of liability. In the current model of practice, the hierarchy of liability reflects the top down approach of the trades. If a truss breaks, the owner and the architect are the last to be sued, before them are the people who made the truss and placed it on site. In the mastermodel collaborative approach, since all the trades are talking to each other and speaking the same language, the liability is shared. Indeed, Gehry astutely convinced their insurance company to develop an umbrella policy that covered all the players more or less equally.

This is merely the beginning of the transformation of practice, based on the recognition that Reed's group-forming law, a theoretical construct that intended merely to explain Internet and email practice, will increase value and radically change the way we build as we move increasingly and inevitably towards complex peer networks.

Vocal Space

In my own practice I had to understand these forces of change when I was asked in 1999 to design the offices of Viant—the Internet consulting company I had joined a year earlier, headquartered in Boston with twelve offices worldwide—in collaboration with Gensler. Viant was adamant about remaining flat and encouraged collaboration across its multidisciplinary teams, composed of designers, business analysts and programmers. Bob Gett, Viant's CEO and a truly enlightened man, gave me one simple charge. His singular requirement or challenge rather, was that any one in the company should feel empowered to join any conversation anywhere and at any time.

Our team analyzed the state of workplace design using Reed's Law as the starting point, and soon discovered that office furniture companies and architects, in 1999 at least, were still fiddling with open plan office designs and improving cubicles. Our acceptance of Reed's Law led us to believe that

cubicles had to go for radical collaboration to take place, and that people moved around space autonomously and in groups in an ad hoc manner.

Mapping the evolution of networks to the state of workplace design, Sarnoff represents that hierarchical model of the modern office, exemplified today in many old corporations and in the Chiat/Day experiments of the 1980s. Metcalfe maps to the brand-saturated office, the visually privileged, anonymous space of the modern day office, the type Andersen Consulting optimized using the hoteling concept in the 90s. At Viant we came to believe that a Reedian workspace is one that encourages discourse and autonomous group expression in an unplanned and continuous manner, and we set out to define it. Encouraged by the potential of extended conversations across disciplines, we called Viant's new model for the radically collaborative workplace the "vocal space".

One of the primordial tasks was to listen to our audience. With Gensler we launched an online survey asking about one thousand Viant employees about the state of their office. Viant already lived in an open space environment equipped with social and lounging areas. We were eager to hear from the employees about their travails working in an open environment.

What emerged was not unpredictable. Of the 600 plus employees who responded, most of them wished they had private space for private conversation, and a place to show a team's progress such as a war room. We took these suggestions to heart and began to redefine our thinking keeping in mind the initial impulse to allow inclusion in all conversations. To reconcile these two seemingly contradictory positions opened the door for invention. Instead of breaking up the program into different rooms with specific functions, we opted to create spaces that allow the vocal expression of the teams. We felt that in a radically collaborative environment, the pressure for conformity should not subsume individual difference. We then broke up the spaces that we needed into three types: spaces that allow individual expression, team expression, and office/community expression.

For example in the first category, we noticed that the only place in the office where someone's name is publicly displayed is on their mailbox tucked away in the mailroom, along with a copier, piles of paper, a large recycling bin, and all sorts of storage material. If indeed successful teams depend on a



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clear and open dialog between peers, it became important to allow those peers a place for individual expression and reflection. In the first instance, we brought out the mailboxes into the public space of the office and allowed the employees to decorate their own mailboxes along loose guidelines. Originally, we included built in mailboxes with display monitors showing preloaded images of various employees and teams across the company at random with an email address. The idea was that on arrival, the employee enters the lobby where his identity is clearly marked, checking in by being acknowledged in the space he has marked, and seeing faces of employees that she may or may not have worked with on another project. So, on the moment of arrival, the Vianteer enters a familiar space and immediately acknowledges that she is part of a larger team that resides here and in the elsewhere, where she can easily communicate and reach out at her own pace and will. [Fig. 4]

The other instance, the individual expression, informed the design of the private rooms for private conversations. Converging the three strains of thought derived from the research of Dorothy Leonard and Walter Swap on the creative workplace, with our finding that employees needed private space within the larger context, and the desire for each office to develop its own personality outside the corporate diktat, we created the headsdown space. The headsdown space primarily provides a private area for private conversation. It is large enough to accommodate two people for an interview or dialogue. It does not have a definite architectural expression and has no specific location. In the Los Angeles office we strove to create a variety of these rooms to allow for diverse uses and appropriations. In one of the conference room clusters we placed four, three side by side on a raised platform and the fourth perched high in the ceiling truss. In order to create an opportunity for the spaces to express the office's idiosyncrasies, we were determined to involve the employees of that office in their furnishing. In each office we designed, we gathered the group and asked them to share with us things they like to have around them when they are working alone. As we compiled a list for each office, we chose randomly three items for each room in a particular location. In the Los Angeles case, for instance, one room ended up with sand floors, a lava lamp and sunflowers. The matrix and its results were invariably practicable yet unforeseen and comic. Viant offered a budget for each office to hunt down the items locally as construction progressed. The new headsdown spaces finally offered a place for the creative 'incubation'

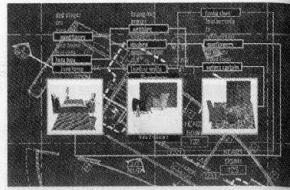
of information and ideas, a place where dialogue can take hold away from the fray, and a place that, in its own uniqueness, expressed the collective idiosyncrasy of a specific group of people. [Fig. 5]

These are just two examples of how group-forming networks can help generate new types of space in a collaborative environment. Note that the forms do not necessarily have any inherent technology in them. Embedding technological devices in these spaces were also included to ensure ease of communication and rapid deployment of groups. What was not clear from the beginning is that smart spaces do not depend on the availability of devices as much on their ability to facilitate the needs of ad hoc groups and individuals as they move about their daily tasks. In the end the design of the space emerged purely on understanding the social power of networks that advances in communication technology enable, and not the other way around; ie, they were not a result of building a space around the capabilities of the latest computational tools.

The Shape of Things to Come?

When it comes to the form of the postnetworked space, I am not sure that style is a factor. Think of Marc Newson's interiors, or the surfaces of Future Systems, or the radical shapes emerging from computer-generated acrobatics such as the recent work of RUR. While they can be appealing and beautiful, and in many ways an alternative to the nondigital work of the aging avant-garde like Koolhaas and Holl, I believe it is a mistake to think of them as the ultimate shape of things to be. Recall the exploded fragments that emerged in the early stages of deconstruction, or the folds that tried to emulate the thought of Gilles Deleuze and Félix Guattari. These forms were merely literal translations of a liberating social critique that took years to mature and express the sense of freedom and textuality from the deterministic models of the Enlightenment. Understanding technology may at first express itself with radical form, fulfilling Marshall McLuhan's dictum that the medium becomes the message.

While there are several design fads to watch out for, and many are seductively charming, one of the most engaging form-making techniques using recent advances in technology is known as emergence. While it is outside the scope of this paper, suffice it to say that emergent systems are decentralized organizations that are found in nature. The way ants



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organize, or geese fly, follow some of the simple rules that we are now applying to video game design such as the Sims. An emergent system is a complex system that is created by the application of simple rules that govern the behavior of the autonomous units within the group. Each unit, makes its own local decisions based on a local understanding of its own context, like an ant reading chemicals from other ants and adjusting its behavior accordingly. When added up, the ant's microbehavior affects a discernable macrobehavior or pattern for the entire organism—such as building a colony or foraging for food—that could not have been predetermined by the individual unit. Experiments in simple-rule programming are generating unexpected beautiful forms that replicate similar behaviors in nature. We have yet to see how architects can adopt these complex systems into spatial configurations that bring in beauty and meaning into our lives. Ciro Najle's group at the Architectural Association in London is exploring ways to operationalize these computational theories into creating what he calls the 'machinic landscape'. While Najle is explicitly attempting to provide alternatives to current architectural practice and discourse, I expect to see more and more formal experimentation in this field.

Conclusion

Tapping into networks is certainly not a new thing. In describing the Cyborg self in the networked city, Bill Mitchell proposes that we, as biological beings, have always had networks that we interface with. Starting with our constitutive networks—nerves, blood, circulatory, reproductive, etc—we are moving plumbing systems. The interface for these systems has always been architectural, best expressed in the film Brazil or in the exteriority of the Pompidou Center in Paris. We plug into the sewer network synchronously when we flush the toilet, and we store our genes in the sperm bank for later fertilization in an asynchronous manner not dissimilar to responding to email. Mitchell argues that technology merely expands this network, invisibly yet more powerfully. Today, my personal network is like a skin that meshes me into the fabric of the city, allows me to peer into private space as well as public space, to sense and feel and even smell—pollen, chemical gas—remotely, as well as delegate to the network, as in Reed's groups, Trinity's blissful experience, or a simple calculator; whenever I need to expand my knowledge and expression.

This ubiquitous sentience, represented physically in the

increasing convergence of bits and atoms as motes and wearables, augmented and virtual reality, poses difficult questions about the self and solitude. While many of the inventions and research conducted these days are, in the end, prosthetic devices attempting to address increasing solitude (such as health monitors for the elderly) as well celebrate autonomy, the image of the self that is emerging is similar to Lacan's description of the baby before misrecognizing itself in the mirror. Could this blob mentality —represented in increasing blob designs, organic, sensual form? —be our reading of a new subjectivity? Is the regression into the premirror stage a liberation from the delusion of absolutist subjectivity? Is this form of freedom also a cause for alarm: are we less able to control our movements, our impulses and our interactions? Reed's law shows an affirmative dimension where we can maximize value through constant collaboration and communication, allowing the self increased value while in a state of constant flux, knowledge exchange and geographic dislocation.

The rise of smart mobs and always-on connectivity are strong cases of increased freedom and negotiating power of spontaneous groups. They are accessible to anyone, depend on peer reviews and feedback loops to perform, and avoid the necessity of a centralized authority. How do these new advances and our recognition of group forming as a positive capability help us add to the wealth of architectural theory, create architectural form, and organize our ever marginalized practice? I strongly believe that our understanding and embracing of collaborative technology could bring architects back as agents of change into the decision making process already governed by economics and technology. Frank Gehry's mastermodel, AutoCAD and other collaborative software such as Groove, and Viant's approach to the workplace are exemplary moments of the connected and group-friendly future of design.

In the end, the Cyborg we are designing for, meshed fully within the urban and political network of society, is neither the Vitruvian self at the center of the universe, nor the indifferent, conniving robot seeking to control our lives. It is simply you and I as we are today.

Karima Benachenhou

Between technical requirements and architectural design

After the Earthquake: Re-building the West of Algeria.

Abstract:

After the earthquake of 2000 which destroyed part of the middle sized town of Ain Témouchent 500 Kms west of Algiers, the authorities had two alternatives to rebuild the town : fill in the space emptied by demolished buildings or build a new housing estate with all amenities included. The latter proposal was maintained for practical and political reasons.

As practitioners and academic researchers, we were invited my partners and I to comment and eventually produce a master plan for the site and were commissioned to realize 550 dwellings, a few elementary and high schools, a mosque as well as, at the beginning, monitoring of the whole project composed of 3400 dwellings and amenities sponsored by the World Bank.

This paper highlights interaction between theory and practice that led to the introduction of Islamic elements in all projects, and that meant putting in practice the main orientation developed by the department of architecture of Oran in terms of morphological methodology.

It retraces also progress of the project and difficulties met by the office in terms of technical requirements in seismic areas. The level of knowledge of the main participants: engineers, local authorities, young architects etc. in this area has launched a debate at the department of Architecture concerning program courses for students in Architecture. The main conclusion is that a thorough change in the program should be undertaken, mainly in terms of building legislation, project management and theoretical knowledge.

Introduction:

The project analysed here reflects the ideology we tried to transmit to our students since we started teaching at the department of Oran in the late 1980's. Failure and success of the project have both made us challenge the very conceptual framework that we put into practice in the project, making us as educators critically question first the ideology, then the methodology and finally the curriculum of our department.

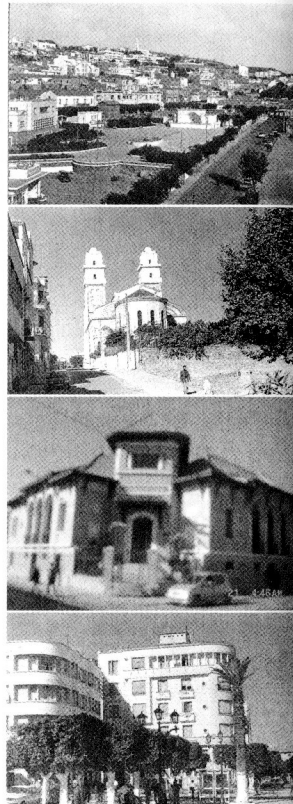
I. Architectural discourse in the late 1980's

A fierce "battle" took place at our department of Architecture in the late 80's between two factions of teachers with different backgrounds and education, a battle that became obvious during the final examination of our fifth year students. The first group of teachers was educated in France or in the then USSR, or merely influenced by Polish lecturers that constituted a large part of the department's staff. Regional planning, urbanism were for them the next step after architecture (the functionalist one).

The second group, a bit younger, came from Anglo-Saxon backgrounds (University of Pennsylvania, Oxford Brookes, Glasgow school of Architecture, etc) and re-introduced the notion of human scale, of recognition space and stressed the importance of human behaviour when leading with architecture i.e. the introduction of Urban Design as a new field of study in the department.

We started, against the will of our elders, to teach the block, traditional building types, piazzas, boulevards, landmarks, street corners and the vocabulary that we thought at the time to be universal and unquestionable: the supremacy of the cultures where we have been educated being the main proof for that.

Nevertheless, most of us could easily identify ourselves with that notion of space as we had the vibrant and so present examples of colonial urban fabric, the Arab medina having quite disappeared from our surroundings after 200 years of Spanish colonization and 130 years of French colonisation. [Fig. 1]



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In terms of Architecture we prone Postmodernism which designates an international architectural movement that emerged in the 1960s, became prominent in the late 1970s and 80s, and remained a dominant force in the 1990s. "Post-modern architecture is characterized by the incorporation of historical details in a hybrid rather than a pure style, by the use of decorative elements, by a more personal and exaggerated style, and by references to popular modes of building.

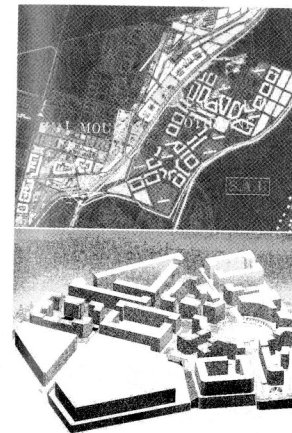
Practitioners of post-modern architecture have tended to re-emphasize elements of metaphor, symbol, and content in their credos and their work. They share an interest in mass, surface colours, and textures and frequently use unorthodox building materials."

II. From theory to practice: the genesis of the project and the search for an identity

When invited by the local authorities in May 2000 to participate to the debate about the new town of Ain Témouchent, we realized for the first time how much our ideas had reached their goals, as most of the master plans produced by a panel of young architects (most of which were our students) reflected that sensitivity to human scale and took into consideration the morphology of the existing colonial town.

At the same time, the deceased prefect (wali) of the town of Ain Témouchent, advocated an Islamic typology which was not in contradiction with our own vision of the new town as we knew that people, despite the long lasting colonization, did not identify with the existing neoclassic architecture but surely with Islamic arches and columns that we could find in local recent architecture.

Our own proposal of a master plan included two piazzas: the first one was located at the top of the hill that dominated the site and had a mosque as the main building. The second piazza was to house the market and shops. We meant by our proposal a hybridation of the Arab medina with its specific public places and the urban fabric of the colonial towns that reproduced the Roman legionary town with its cardo and decumanus and its checkerboard pattern. [Fig. 2]



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At a time when political discourse was dominated by the

issues of terrorism in Algeria, the Prefect chose to place the commercial development along with residential, on top of the hill, and relegate the mosque down on its lowest slope.

We then participated in the architectural competition and were chosen as the leading architects to conduct the project of 3400 social dwellings as well as a set of public buildings. Our main task was to ensure that the projects were remarkable enough for their solutions to technical problems as well as from a compositional and aesthetic perspective and therefore help local authorities to select the best projects to be carried out.

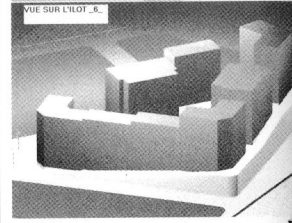
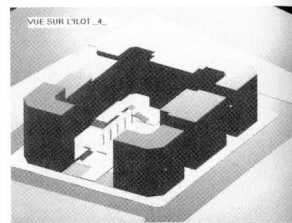
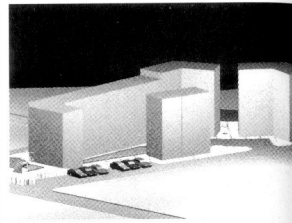
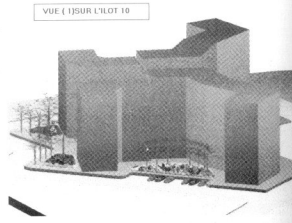
We had besides to conceive the first program composed of 550 dwellings on top of the hill, two schools, one high school and a mosque. [Fig. 3]

II. a. Initial Constraints: from the discourse to reality:

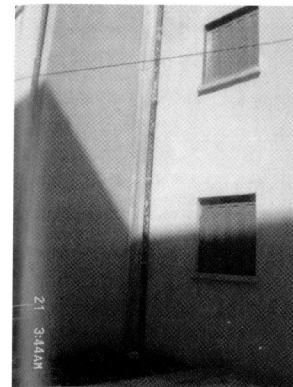
The first main constraint was to limit the height of the buildings on the whole site to seven levels for economic reasons (adjunction of a lift for more than five storeys, adjunction of concrete walls etc). Thus, we lost the landmarks which consisted of high rise buildings in significant places on the site.

The second constraint that we met was the shape of the buildings layout in L, which provoked a strong opposition from the civil engineers in charge of the structure. Their main argument was that the site is in a seismic area and that the buildings in an L shape would not stand any earth tremor. As we insisted they agreed to try calculations only for buildings of no more than seven levels, but we had to split the buildings in two parts separated by a joint which affected the architecture.

Another important constraint was the site topography and geology which modified consequently the site layout. The strong slopes did not allow closed blocks in U shape for used water drainage. We thus had to open up the blocks. We also had to change the layout of one building from an L shape to a linear shape because one part of the site was geologically weak. To avoid the surcharge in economic terms as we dealt with social housing with limited financial means, we had to adjust the project to those constraints.



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II.b. Lack of Knowledge

It is to mention that the project was launched and the building companies selected before the whole design was achieved, urgency in re-housing people being the leitmotiv of local authorities. The project being sponsored by the World Bank, control of structure was carried out by two organisms; the local one (the CTC) and the Audit (the CGS) based in Algiers 500 kms far from the site.

When the earthquake occurred, a new building legislation (RPA 99) was just being released by the Audit itself. Being one of the first architectural offices to use it, we immediately pointed at an anomaly in calculating seismic joints which produced gaps of about 30 cms.

[Fig. 4] Animated debate took place between us as architectural consultants, the public administrator and the two organisms of control, a procedure which delayed considerably the project but which allowed us to acquire considerable knowledge in terms of structure.

From this point, it was difficult for us to impose our point of view in any other subject. Among the many problems encountered was the little hold we had on the building companies that didn't have professional technical staff, the little understanding of the public administrator who didn't have skilled professional staff either. As an example, we weren't allowed to make any change during the process of building: one single round pillar instead of a rectangular one even if it was proven scientifically stable provoked controversy from local authorities down to the public administrator. The choice of colours was again one of the main dissensions between us and the commissioner. We saw the project as completely white with colours only on windows in reference to Arab typologies. The public administrator saw it multicoloured with Saharan colours. It took us many months and the help of the Prefect to win the case, but one part of the project would be completely white, even on windows, on instruction of the administrator.

[Fig. 5] On the other side, as a result of the lack of skilled staff within the building companies, the administrator required from architecture offices in charge of the different projects to have permanent staff on site.

We had for each hundred dwellings one permanent architect and one civil engineer. Their main failing was that none of them could take any decision on site, even if it was delegated to them. They failed then in representing the office and we were forced to make daily visits to the site, neglecting other aspects of the project: design adaptation, costs analysis, public relations etc.

II.c. Managerial and public relations abilities of the architects

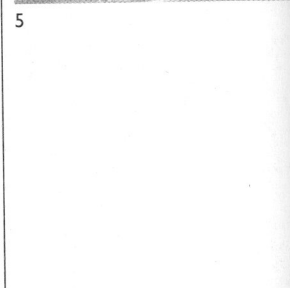
Any managerial skills of the architect would be put to the test in such stakes: such a large scale development makes the building company at the heart of the whole process with little left to the designer, as a huge amount of money is handled. The architect is relegated to second role.

Nevertheless, as he is bound to be left aside in terms of management, it is in terms of public relations that his role is called to change as he has to deal with political, sometimes non professional actors in the process of construction.

III. Back to theory: an alternative discourse?

The changing discourse within contemporary architecture acknowledges the emergence of an increasingly interdisciplinary culture. Many notions have new meanings: identity refers to localism, universal knowledge becomes hybrid knowledge, and the architect is also an engineer, a negotiator. What was true for the ancient medina is no more adequate in contemporary cities as economic factors become predominant, underlying any decision-making: the most striking example being the market replacing the mosque at the top of the hill.

The choice of Islamic elements was a political choice which had great impact on the architectural identity of the region,



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but the displacement of the mosque in favour of the market puts this identity in a new framework turned towards modes of communication that are appropriate for the times. Finally, contemporary architecture, by trying to regain authenticity by intuition or logic aims towards a new society which could keep pace with present changes.

As Postmodernism is a mixture of historic elements combined with contemporary building technique, it still identifies itself with those buildings that take as a reference historical symbolism and typologies along with modern structural economic and construction based systems.

Could Arab (Algerian) contemporary architecture acquire a distinctive identity through hybridizing of forms with a colonial architectural heritage deeply anchored in people's mind, but still remain conscious of the contemporary changes in attitudes and beliefs?

In the facts, the users are quite satisfied with the results because they prefer proven models which can communicate elements from their lost past.

Architecture as a design process was influenced not only by the question of form, space and content but also by political and economic contingencies concerned with the regulation and enforcement of construction. This way of designing is quite common nowadays and can be done on a high level, as we could see from other architects on the site, but some of them couldn't avoid historical kitsch.

This should lead us to initiate critical discourse and explore new possibilities not to make of obsolete practice and obsolete theories an ideology. In our case, the methodology was not fully valid, because it was not fully applicable. [Fig. 6]

IV. Architectural pedagogy and iterative relationships between theory, practice and education

From our experience, particularly in Ain Témouchent, the main question was how to adapt reality to the teaching we were giving at the school?

On one hand, the main failure of the curriculum as it is now in the department is that each section is partitioned without relations between each other. Studio teaching is the main course encouraged by the fact that it is a prerequisite for other courses.

A cruel lack of courses linked to real life and future practice: management, public relations, building regulation makes the curriculum inefficient to produce architects that could immediately integrate practice.

One of the aims of architectural education should be the development of student's ability to gather information from various fields to synthesize it when he has to solve a specific design problem and as an office we suffered cruelly from the lack of efficient staff.

On the other hand, critical discourse should be initiated to courageously take position against globalisation *without denying* it and take into account the peculiarities and changes that characterize our own country.

In conclusion, the program should be:

. Interdisciplinary: Developments based on technology, cultural studies, intellectual history, urban studies and critical theory should be incorporated into the program, creating a dynamic and evolving curriculum. A broader range of courses would stress the relationship of architecture and urbanism to their cultural, social, political and technological milieus. Students should concentrate in the history of the profession, the history of discourses on architecture and the city, problems in modernization and contemporary theory.

. Cross-cultural: Students should be encouraged to understand their historical and theoretical work in relation to the current professional, technological and social concerns of architecture as well as to contemporary design debates.

. Iterative: constant debate should question the state of the art throughout the world, as well as the main issues that characterize our own country, confronting global thinking and local one.

Finally Research should focus on how local identity is currently being made, as well as the role of history. It should

explore trans-cultural injections of ideas and stereotypes. Theoretical concepts are to be explored again. The constant interaction between critical research and new developments in the practice of architecture and urbanism should be the main "*raison d'etre*" of researchers.

Illustrations

1 The Old town of Ain Témouchent: the Mosque at the top of the hill, the Church used as a mosque, the Colonial Buildings also are References.

2 Master Plan of the New City.

3 Blocks patterns opened up.

4 Thirty cms joint gap concealed with aluminium devices

5 Architectural expression of Islamic typologies combined with western elements: School, high school and dwellings blocks

6 Architectural expression of Islamic typologies combined with western elements: dwellings blocks

Reality of Paradigm Shifts - a New Approach Towards City Centre Development

Abstract

Cities are a crude interpretation of the spatial narratives of individual needs and societal aspirations. A City Centre is actually a microcosm of the greater city, being constituted of all the various facets of a city and reflecting contemporary developments. Although many statistical methods have been developed to deliver Master Plans for evolving City Centres, the vision is often lost in the process of detailed exploration, especially with regards to the quality of the public realm. As we progressively grow into a more inter-dependant world, cities have become a place of globalised architectural clutter; a mixed palette of so called cognitive urban ethos/ aspirations, which are gradually turning into physical mummies. This situation is bound to grow in the absence of a clearly defined strategy towards urbanisation that integrates essential components of urban quality along with the fulfilment of quantitative aspects.

As a part of an ongoing research, focused towards finding alternative methods for an eventual development of a conceptual model of a city centre and growth of these urban cores this paper is an attempt towards highlighting these paradigm shifts in an evolving city centre. It takes a case study of Mumbai, India (formerly known as Bombay) as a city and its history to remain focussed contextually as the first step towards a generic understanding of the subject. It is anticipated as a catalyst to generate a discussion based on two specific goals:

Firstly, to initiate a discussion based on the historical account of the city and evident paradigm shifts.

Secondly, to discuss an intermittent findings of an ongoing research towards a conceptual generic model of an evolving city centre through a four tool method of the *spatial, the cultural, the inherent* and *fundamentals* highlighting the importance of both quantitative and qualitative attitudes.

Introduction

Globally, several concepts dealing with urban spaces have their roots in some abstract notions. These urban spaces oscillate between 'nothingness' and something universal. It is observed that mythological beliefs have a share in influencing such thinking. This research is not to be seen as an exploration of those notions or question such perceptions; rather its main aim is to examine the manifestation of these as urban spaces that have a strong base with a wide spatial and temporal spread. It can be attributed as a thematic continuity generated by the similarity of skills and commonality of beliefs. It can be well defined as an explanation of ideas of an urban space as seen in various essential, functional and structural expressions in the traditions of Indian urban development. For example, our understanding of urban development starts with describing a "City as a Metaphor". Literally, a metaphor means a "thing regarded as symbolic of something else". It is a pragmatic way of labelling a complex utilitarian understanding of the City, the way it represents the inhabitants and their aspirations. When we think about cities we describe or analyse. There is already an existing aura or sense of place and sometimes by mere accident; we find commonalities as a generic phenomenon.

The current paradigm of regeneration as a kit of parts for urban assemblage can only be assessed in terms of a qualitative definition with a low variance. The exponents of visionary urbanism from Sitte to Le Corbusier promulgated radical transformations of society. In the contemporary era, New Urbanism and Neo Modernism are examples of isolating ideologies, and at this juncture this research looks into the various sets of principles or paradigms, their meanings, variances, processes and generators.

By definition, a paradigm may be created from a blank slate and brought into existence by its expression. If there is an agreement within a culture, then over a period of time it becomes a custom, part of what we might call a tradition. These orders and the shifts therein are changing relatively rapidly forming a matrix of changing paradigms and hence a city centre is actually an overlay of these shifts or Paradigms.

Any attempt to project into the future of a city centre, even though for a short duration of ten to twenty years, we must attempt to define the variables that could, in the intervening

years, affect the course of its development. The real crux in predicting the future lies in whether we have the choice in determining that future, and who the "we" are who will make the choice? In the process of defining the changing paradigms, it might be possible to simulate and imagine alternative scenarios for variable size, shape and form of future city centre. The symbiotic relationships between the various urban parameters in any context are a superimposition of this value system, of which each of these has developed over a period of time. The conventional factors of determining the growth pattern and eventual development of the urban fabric like Population/ Density, Land uses, Movement Systems have to take in cognisance the ever-changing aspirations and their requirements. The search is an understanding of the landmarks (notional or otherwise), activity generators, economic and administrative policy formulation and other related factors... We might be able to realise its importance which would eventually lead to the qualitative interpretation of the quantitative (tangible) and intuitive (intangible) parameters.

First interpretation of a city centre could be laid as an urban model as Burgess Model (1925), based on the distance in concentric centres of CBD, Place of work. Its first criticisms came from the work of Homer Hoyt (1939) in *Sector Model* which added a component, direction along with distance. Then the famous *Multiple Nuclei Theory* of Harris Cud Ullman (1945) where he defined it as a patchwork of different discreet areas rather than sectors or zones. Then there are notable contributions from Murphy and Vance (1954), *Central Business Height Index* and Harwood and Boyce (1959) about the structure regarding the Internal (CORE) and External (FRAME). But as a definition quotient, these are basic structural interpretation vis-à-vis the city structure, but do not describe the changes in terms of a wholesome approach including the factors of planning and design.

Jane Jacobs's *Death and Life of Great American Cities* contained a condemnation of the zoned and formulaic approach to city planning pursued in the North End of Boston (1962). It celebrated urban vitality through the extended metaphor of the ballet in her observations of Hudson Street. Kevin Lynch *The Image of City*, Gordon Cullen *The Concise Townscape* and Christopher Alexander *Pattern Language* and A new theory of *Urban Design* could be a source of the theme match between the key words of 'Vitality and Viability' (Pratt, 1997) that

seems to be the simplistic form of understanding these paradigms and their shifts.

Recent urban theories: city centre

In early 1960s, Carol recognised its traditional role as "...offering the 'full range' of retail outlets, serving the entire city and its wider region." Carol (1962). Similarly in the early 1980's, Carter (1981:198) saw the City Centre as "...organising centre around which the rest of city is structured". In the mid 1990's city centre were envisaged by Montgomery (1995:101) as having traditional role as "...centre of trade and commerce, creativity and culture", for that the "...key to successful city places is therefore diversity, supplemented by relatively high nos. of people with different tastes and proclivities". DoE (now a part of ODPM) has described city centre as "...economic entity satisfying a number of human needs", having "...special qualities which give them additional public values and places for human interaction" (DoE 1997:10).

Short (1996:61) states that,

"current work on shopping and retailing has moved beyond the geometric focus of early central place theory towards a more explicit consideration of the economic importance and cultural significance of retail places".

The Central Place theory is "based on certain assumptions of human behaviour" Healy and libery (1992:21). For example Christaller devised a theory of hexagonal market areas in 1933, whereby a hierarchy of service sectors is apparent with "...a large no. of small (low order) centres providing basic services and increasingly smaller nos. of high order centres providing more special goods in addition to basic services". Issue 83, *Urban Design Group News letter*, from a lecture by Edwin Knighton (2002:6) talks about various facets of changes in the eventual development process as:

- Cultural – engendering and embodying civic pride
- Economic – exchanging goods; increasing value of real estate
- Psychological – linking quality of life and nature
- Physiological – promoting healthy lifestyles
- Environmental – ameliorating pollutants of the city
- Social – 'interacting is the attraction'

Architectural Pluralism in Urban India

India and particularly urban India is emerging as a unique

landscape of eclectic architectural pluralism. The urban Indian landscape is characterized by intense duality where modernity, tradition, prosperity and acute poverty, communality and communalism, medieval society and cutting edge information technology coalesce to create incomprehensible cities. These complexes defeat conventional notions of the city and are represented more accurately through 'motion' and mutation of urban space rather than conventional notions of the city as a largely 'static' and stable entity.

Today in our urban areas there exist two cities – static and kinetic – two completely different worlds that co-habit the same urban space. The static city is represented through its architecture and monuments built in permanent materials. The kinetic city that occupies interstitial space is the city of motion – the kuttcha city, built of temporary material. In the kinetic city architecture is no longer the spectacle of the city; rather processions and festivals form its spectacle and memory and the very expression of the city is temporal in nature, in constant flux. In this dynamic and near schizophrenic situation how does one approach urban or architectural conservation? How do we reconcile the static and kinetic? Rahul Mehrotra (2002)

It is here that the notion of 'cultural significance' gains importance – an idea where culture, place and perhaps aspirations intersect in interesting ways, opening up several questions about conservation approaches, where the act or thrust of conservation movements must necessarily go beyond the static to also encompass the kinetic city. What is the validity of such a notion in a highly pluralist society where cultural memory is often an enacted process? What is our cultural reading for the kinetic city which now forms a greater part of our urban reality?

How do we then embrace this 'change' as integral to the development, especially where the creator of that environment and the present custodians represent completely different cultural constructs? How do contemporary aspirations 'inspire' the process of conservation where we look forward and backward in a simultaneous gesture? How does one read cultural significance and the validity or necessity to sometimes invent 'cultural significance' to drive this process?

History of Mumbai

The fishermen were here first ... when Bombay was a dumbbell-shaped

island tapering, at the centre, to a narrow shining strand beyond which could be seen the finest and largest natural harbour in Asia.
"Midnight's Children", Salman Rushdie

Although the archipelago which developed into the modern city of Mumbai was inhabited whenever history chanced on it, we are forced to imagine the lives of these early Mumbaikars, because the islands lay outside of the sweep of history and beyond the marches of armies for millennia. Stone age implements have been found at several sites in these islands. Later, around the third century BC, the coastal regions, and presumably the islands, were part of the Magadhan empire ruled by the emperor Ashok. The empire ebbed, leaving behind some Buddhist monks and the deep-sea fishermen called Kolis, whose stone goddess, Mumbadevi, gave her name to the modern metropolis. Between the 9th and 13th centuries, the Indian Ocean, and especially the Arabian Sea, was the world's centre of commerce. Deep sea crafts made of wood tied together with ropes transported merchandise between Aden, Calicut, Cambay and cities on the West coast of Africa. Marco Polo, Ibn Batuta and other travellers passed by without ever making a landfall in these islands. Sourendu Gupta (TIFR, 2002)

Bombay changed hands many times. The islands belonged to the Silhara dynasty till the middle of the 13th century. The oldest structures in the archipelago--- the caves at Elephanta, and part of the Walkeshwar temple complex probably date from this time. Modern sources identify a 13th century Raja Bhimdev who had his capital in Mahikawati-- present-day Mahim, and Prabhadevi. Presumably the first merchants and agriculturists settled in Mumbai at this time. In 1343 the island of Salsette, and eventually the whole archipelago, passed to the Sultan of Gujarat. The mosque in Mahim dates from this period.

The western influence and freedom

In 1508 Francis Almeida sailed into the deep natural harbour of the island his countrymen came to call Bom Bahia (the Good Bay). Bahadur Shah of Gujarat was forced to cede the main islands to the Portuguese in 1534, before he was murdered by the proselytizing invaders. The Portuguese built a fort in Bassein. They were not interested in the islands, although some fortifications and a few chapels were built for

the converted fishermen. The St. Andrew's church in Bandra dates from this period. Eventually, in 1661, Catherine of Braganza brought these islands to Charles II of England as part of her marriage dowry. The British East India Company received it from the crown in 1668, founded the modern city, and shortly thereafter moved their main holdings from Surat to Bombay.

The web of commerce which had supported the civilisation of the Indian Ocean littoral had died with the coming of the Europeans. The Mughal empire in Delhi was not interested in navies-- despising the Portuguese and the British as "merchant princes". The second governor of Bombay, Gerald Aungier, saw the opportunity to develop the islands into a centre of commerce to rival other ports still in the hands of local kingdoms. He offered various inducement to skilled workers and traders to move to this British holding. The opportunities for business attracted many Gujarati communities--- the Parsis, the Bohras, Jews and Banias from Surat and Diu. The population of Bombay was estimated to have risen from 10,000 in 1661 to 60,000 in 1675.

Through the 18th century British power and influence grew slowly but at the expense of the local kingdoms. The migration of skilled workers and traders to the safe-haven of Bombay continued. The shipbuilding industry moved to Bombay from Surat with the coming of the Wadias. Artisans from Gujarat, such as goldsmiths, ironsmiths and weavers moved to the islands and coexisted with the slave trade from Madagascar. During this period the first land-use laws were set up in Bombay, segregating the British part of the islands from the black town. With increasing prosperity and growing political power following the 1817 victory over the Marathas, the British embarked upon reclamations and large scale engineering works in Bombay. The sixty years between the completion of the vellard at Breach Candy (1784) and the construction of the Mahim Causeway (1845) are the heroic period in which the seven islands were merged into one landmass. These immense works, in turn, attracted construction workers, like the Kamathis from Andhra, who began to come to Bombay from 1757 on. A regular civil administration was put in place during this period. In 1853 a 35-km long railway line between Thana and Bombay was inaugurated - the first in India.

Four years later, in 1854, the first cotton mill was founded in Bombay. With the cotton mills came large scale migrations of

Marathi workers, and the chawls which accommodated them. The city had found its shape. Following the first war of Independence in 1857, the Company was accused of mismanagement, and Bombay reverted to the British crown. With the outbreak of the American Civil War in 1861, and the opening of the Suez Canal in 1869, exports, especially cotton, from Bombay became a major part of the colonial economy. The Great Indian Peninsular Railway facilitated travel within India. This network of commerce and communication led to an accumulation of wealth. This was channelled into building an Imperial Bombay by a succession of Governors. Many of Bombay's famous landmarks, the Flora Fountain and the Victoria Terminus, date from this time. The water works, including the Hanging Gardens and the lakes were also built at this time. The Bombay Municipal Corporation was founded in 1872. However, this facade of a progressive and well-governed city was belied by the plague epidemics of the 1890s. This dichotomy between the city's symbols of power and prosperity and the living conditions of the people who make it so continues even today.

The construction of Imperial Bombay continued well into the 20th century. Landmarks from this period are the Gateway of India, the General Post Office, the Town Hall (now the Asiatic Library) and the Prince of Wales Museum. Bombay expanded northwards into the first suburbs, before spreading its nightmare tentacles into the northern suburbs. The nearly 2000 acres reclaimed by the Port Trust depressed the property market for a while, but the Backbay reclamation scandal of the '20s was a testament to the greed for land.

Bombay is energetic, exuberant, sparkling, and has building stones of many kinds and colours ... on your dyspeptic days you are apt to find ... Bombay's [architecture] bumptious, even riotous. In your more genial moments you might apply the adjective ... 'vital'.
John Begg, Consulting Architect to the City of Bombay, circa 1920.

The freedom movement reached a high pitch of activity against this background of developing Indian wealth. Gandhi returned from South Africa and reached Bombay on January 12, 1915. Following many campaigns in the succeeding years, the end of the British imperial rule in India was clearly pre-figured by the Quit India declaration by the Indian National Congress on August 8, 1942, in Gowalia Tank Maidan, near Kemp's Corner. India became a free country on August 15, 1947. In the meanwhile, Greater Bombay had come into existence

through an Act of the British parliament in 1945.

Bombay played a formative role in the struggle for Independence, hosting the first Indian National Congress in 1885 and the launch of the 'Quit India' campaign in 1942. After Independence the city became capital of the Bombay Presidency but this was divided on linguistic grounds into Maharashtra and Gujarat in 1960. Since then, the huge number of rural (especially Maharashtrian) migrants attracted by Bombay's commercial success has strained the city's infrastructure and altered its demographics. It gave rise to a pro-Marathi right-wing regionalist movement, spearheaded by the Shiv Sena municipal government which shook the city's multicultural foundations by discriminating against non-Maharashtrians and Muslims. This increased communalist tensions, which erupted in murderous post-Ayodhya riots in 1992 and was followed by 13 bomb blasts that ripped through the city on a single day in March 1993. Shiv Sainiks were implicated in the former while the city's mafia got blamed for the latter - though the dividing line between the political establishment and organised crime has been hard to pinpoint.

The Millenium City

Already India's main port and commercial centre, the City of Gold lured the poverty stricken rural population and the expanding middle class equally. The population boom of the '50s and '60s was fuelled by the absence of opportunities in the rest of the country. The language riots, the reorganisation of Indian states and the see-saw politics of the country did not seem to affect the city. The glamour industry's flattering portrayal of Bombay seemed to be the reality. However, by the late '80s the other big Indian cities had choked in their own refuse and Bombay's road ahead seemed to be blighted. How this city, renamed Mumbai in the mid 90's copes with the challenge of controlling its political fragmentation, disastrous health problems and load of pollution by utilising its wealth of talent and manpower is a story to be told by future historians. Sourendu Gupta (TIFR, 2002)

Bombay or Mumbai has a special spatial characteristic, it's a linear stretch of a city structure which polarises at the end as a bulb of activity that forms the core, but the periphery beyond this point actually forms another layer of distinctive

character zones based on the human perception of distances. It starts with basic functions to ancillary functions and trickles down as mere residential pockets with intermittent leisure and industrial corridors. Our imagination of the city to be fragmented in zones of importance based on the need and priority and position vis-à-vis the city as a whole is once again an oversimplified version of the complex metabolism of the city itself. Bombay (now called as Mumbai) is a metropolitan area boundary that's reaching a population of 10 million with having one of the highest densities in the world. It is the southernmost tip as a centre that has having one of the highest indices of rental values and cost per sqm in the whole world. At the same time a person staying within this region rarely feels like going to the core except for business and administrative functions. Does it mean that the cores have fallen apart as a basic hub of all activities? Certainly not, it means that the same functions are not decentralised and a reason for the person to toil his way to a crowded centre had diminished. But has it really succeeded in its approach to decentralised corridors? But recent developments of new decentralised zones as Bandra Kurla Complex and New Bombay enclave have helped in shifting the functions once this old core was catering to and these peripheral developments have encouraged towards a more viable proposition.

A city like Mumbai has grown and developed into a metropolis, for which it cannot be classified and fragmented into city centre and other surrounding peripheries. Its development pace has overridden the concept of singular city centre to another platform of centres overlapping with specific natures as commercial, trade or residential hub.

In order to understand the nature and construct of paradigm shifts it is important to correlate two examples simultaneously, we take the case of Mumbai fort precinct as a starting of understanding of the whole concept of this evening paradigms that evolve the city centre, its boundaries, extents, influence and image.

Some of the work carried out by citizens' groups in Mumbai's historic Fort area addresses this issue of using '*contemporary engines*' to drive this process of conservation and, more importantly, animating interstitial spaces in the city and creating thresholds between the many different worlds that exist in the city. In short, engaging with the idea of also simultaneously creating new urban typologies and inventing '*significance*' in response to specific problems and emerging aspirations.

In 1996 the Shiv Sena officially renamed the city Mumbai. The change of name led to linguistic confusion, and signalled the intention of the Maharashtra state government to assert the city's Marathi identity, despite the strength and success of its multicultural foundations. The Shiv Sena and their leader, Bal Thackeray (noted for his stated admiration of Adolf Hitler), ruled the state of Maharashtra behind the scenes until October 1999, when the administration which had protected them lost to the Congress Party in assembly elections. Attempts by the state's new political leaders to prosecute Thackeray in July 2000 for his alleged involvement in the 1992 anti-Muslim riots led to his supporters effectively shutting Mumbai down for several days through violent protests - the charges against this still influential person were then soon withdrawn. Mumbai leapt into the new millennium determined to become the most populous city in the world by 2020, when it might hold as many as 28.5 million people. This upcoming stature is, however, of little comfort to the 50% of the city's inhabitants who presently still live without water or electricity. It's hoped that the satellite city of New Bombay, which is taking shape on the mainland, will relieve some of the pressures on the urban environment.

Similarly, to deal with this highly complex entity of urban areas, especially in Mumbai, notions of '*cultural significance*', which limit efforts to '*object-centric*' projects, should be broadened to respond to our highly pluralistic society where cultural memory is often an enacted process. This is especially relevant given the fact that the '*kinetic city*' now forms a greater part of our urban reality! In this dynamic context, it will be necessary to include the notion of '*constructing significance*' in the conservation debates. In fact, an understanding that significance '*evolves*' will truly clarify the role of the urban planner, designer and architects all alike as an '*advocate*' of change, not only as one who opposes change - a facilitator who is an agent giving expression to contemporary aspirations.

Urban Models

Three classes of models have been distinguished as *descriptive* models, *predictive* models and *planning* models. Ira Lowry has enumerated the features of the descriptive model in urban studies as follows:

'the builder of a descriptive model has a limited objective of persuading the computer to replicate the relevant features of an existing

urban environment or of an already observed process of change. Roughly speaking, the measures of his accomplishment are: one, the ratio of the input data required by the model to output data generated by the model; two, the accuracy and cost of the latter as compared to direct observation of the variables in question; and three the applicability of his model to other times and places than that for which it was originally constructed'. (1965)

The descriptive model provides the planner with an insight of the working of city structure but it does not allow him to predict future trends or to determine the effects of particular planning policies. Nicholas Bullock, Peter Dickens and Philip Steadman (1968)

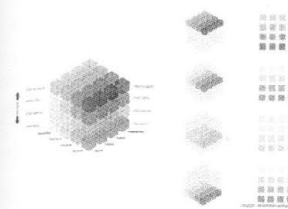
This is done by a prescriptive model, for which it is necessary to specify mechanisms of cause and effect governing the variables whose values are simply observed in the descriptive model. In some cases the predictions may take a conditional form; that is to say the model is designed to operate so that 'if X occurs, then Y will follow', but takes no account of the actual likelihood of the occurrence of X. in this way the frame of reference of the model can be somewhat limited. It is nevertheless impossible to treat all external (exogenous) variables conditionally, since not all will operate independently of each other. We cannot assume both that 'if A occurs then B will follow, and if X occurs then Y will follow' since the occurrence of A may preclude or effect the occurrence of X.

Planning models, the third type, form a class whose technology is far not developed. In planning models a measure of optimisation is introduced in terms of the chosen criteria, in order to determine means of stated planning goals.

"The essential steps are as follows : one, specification of alternative programs or actions that might be chosen by the planner; two, prediction of these consequences of choosing each alternative; three, scoring these consequences according to a metric goal-achievement; and four, choosing the alternative which yields the highest score' (Lowry, 1965).

Since a wide choice of planning alternatives exists at each stage in the 'decision-tree' the number of overall possibilities rapidly becomes astronomic, but the use of computer programs to carry our steps three and four allows the examination of a fairly large number of alternative decision sequences.

The model described here forms a fourth classification,



namely 'Associated - Narrative', its simple understanding is based on one; the four derivatives that encompass nearly all possible predictive models in physical manifestation; two, choosing the level of intervention, with an historical precedent which determines the nature descriptive of response; third, describes and predicts the likelihood and possibility of change in paradigm from the existing within an optimum SWOT analysis; fourthly, refers to the other planning models described above for future directions.

The generic abstract model

To understand these processes and their intermittent resultants lets take a direct approach towards four basic derivatives (provisional working terms) of the *spatial, the cultural, the implicit and fundamentals*. (As shown in abstract model - Image 1 and a simulated one as in Image 2) [Fig. 1]

The processes are not necessarily to find an end product, but in order to limit our scope of this vagueness; we try to focus on an evolving city centre as a changing paradigm based on these parameters.

The Spatial

The first form of study that remains essential and forms the backbone of physical planning starts with an understanding "of or relating to space". In terminology it encompasses all physical aspects towards a comprehensive study of the urban morphology including regular and irregular patterns of physical manifestations, its structuring and eventual growth.

One of the first coherent analyzers of the urban scene in empirical terms is "The Image of the City" (1960). The project resulted in the evolution of the concept of legibility depending on the people's 'mental maps'. Before Lynch the concept of legibility has proved invaluable as an analytic and design tool. *The Image of the City* helped give rise to a new science of human perception and behaviour in the city. For urban designers, however, it is Lynch's innovative use of graphic notation to link quite abstract ideas of urban structure with the human perceptual experience liberating them from the previous strictness of the physical master plan.

In his classic text, *The city is not a tree*, Christopher Alexander

develops a convincing argument for why separate functions have come to dominate the world of urban planning, and why this is an unhealthy way of building our cities. Alexander explains that city-building has become dominated by narrowly focused professions, mainly because human beings do not seem to possess the mental capacity to holistically perceive the complex social, environmental and economic processes that collectively shape urban life. Referring to a variety of experiments, Alexander demonstrates how the human mind tends to separate elements and arrange them in categories and visually separate spaces. When people are faced with complex organization, they reorganize natural overlap into non-overlapping units. Alexander characterizes this non-overlapping structure as a "tree", and he argues that the complex organization of cities is in fact more suited to a "semi lattice". While planned cities resemble trees, naturally grown cities and those that break free from the "tree" are semi lattices. Alexander argues that semi lattices are healthy places, while extreme compartmentalization and dissociation of internal elements can lead to destruction. He explains that in a person, dissociation marks schizophrenia, and in a society it marks anarchy. For a city to remain receptive for life, social interaction and human prosperity, it must unite the different strands of life within it. Planners and designers must therefore allow for a mix of functions and be open-minded to organic change.

It builds up an argument based on the next derivative...

The Cultural

For all its false promises, the metropolis is as seductive as ever. Ramesh Kumar Biswas, *Metropolitan Love*, 2001

All our references are an interpretation from the past, historic references and knowledge of the present. It could be "a spoken or written account of connected events, a story" that gives us directions to the character and composition of the urbanity we live and cherish along with cultural and socio-economic parameters. According to Norberg-Schulz:

to be meaningful ... the inventions of man must have formal properties which are structurally similar to other aspects of reality, and ultimately to natural structures ... Natural and man-made space is structurally similar as regards directions and boundaries. In both, the distinction

between up and down is valid, as well as the concepts of extension and closure.

The boundaries of both kinds of space are moreover to be defined in terms of "floor", "wall", and "ceiling". On the one hand, he testifies to the importance of reality and nature (whatever they may mean) in architectural expression. On the other hand, his characterizations of the directions and boundaries of natural and man-made space must be re-evaluated: if not refuted: in extraterrestrial environments.

It forms a representation of the beliefs and convictions we associate with the practices and look forward for the "spirit or sense of place". Cities and metropoli are perfect example of these expositions. The metropolis, more than any other human artefact, encapsulates the Utopian promises of modernity: salvation and equality through science and progress; the victory of culture over nature; the shattering of pre modern icons and hatreds and the establishment of a cosmopolitan melting pot of tolerant multiculturalism; consumerism as the path to the good life.

In these days of global corporate hegemony and nihilistic postmodernism, those modern dreams seem hollow: deceitful or, at best, misguided. Despite (and because of) a relentless push for development at any cost, cities are in crisis: uncontrolled sprawl is endangering life-support systems; the chasm between rich and poor is growing ever wider; increasing municipal taxes (levied on the poor who stay inside city limits and not on the wealthy who escape to the suburbs while still exploiting and enjoying urban resources) can't keep up with infrastructure costs.

It leads to another derivative of character zoning within and around the context...

The Implicit

Over the period of the growth of our towns and cities certain fundamental notions of "existing something as permanent or essential attribute" define the context, different from one to the other.

In his search for norms, Aldo Rossi confronts the typological schemes of modern architecture with their ancient and vernacular counterparts; in his formulation of an architecture for present conditions, he plumbs the first truly normative

concepts that under grid neoclassicism. He has no use for period ornament, no interest in cut-rate imitation; what he intimates, instead, is the possibility of an order of things that allows us to experience the present as a suspended moment in the passage from the past into the future.

Implicit understanding marks the beginning of the contextual development, related to the history of the place along with its associated landmarks and activity generators, which in many ways determine the direction of growth. It also exemplifies the need for an overall grasp of the nature and boundaries of the area as we study with a base of further...

The Fundamentals

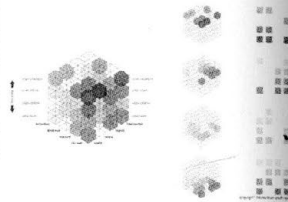
Design is always a subjective appeal in a sense that we tend to "accept as true without proof" certain quarters of physical manifestations of the previous derivatives. Sometimes it is obvious through the intermittent intervention, but it always swings to and fro within these aforesaid confines as a balancing act of justifying our projected visions.

Statistics, policies and associated guidelines regulated through administrative and economic mechanisms form the last of the derivatives which influence the eventual physical manifestation.

In crude sense it seems as though these are very separate arenas and an individual set of actors on the stage performing a play... but if we look closely, it is basically a matrix of intervening interests within these four set of principles that in any given point of time define a set paradigm built up over a certain period of time. If we try to analyse any part of an urban fabric, it has these components with varied degrees of influence on the eventual strategies and policies that guide us towards further developments. [Fig. 2]

The Way from Here

Although this is a starting point towards a composite analysis, testing and refinement, it certainly looks forward for a third dimension of defining the urban fabric, patterns, orders and eventual understanding of the paradigm. The time chart of development and growth could be from an ascending or descending order of influence. This would give us a cognitive



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and pragmatic understanding of the evolving city centre. A City's history cannot be determined and analysed overnight and thus although there is a positive component of a comprehensive understanding of the urban development. *City Centre* succeeds when the qualitative understanding is reflected in the physical manifestation and plays a major role in creating optimal experiences for its people. In order to get the same shape of the future of the same, it is necessary to utilise the integration of various areas of expertise and a solid understanding of the people and their desired experiences. The number of people and resources that must be brought together to provide a successful city centre is enormous. Complexity of this task explains why so many cities and their centres fail. One can only interpret three major factors that must be essential for success of city centres:

Firstly, the vision to identify technologies and their impact on people's lives. As technology and culture are deeply related phenomenon, rapid change of technology can alter our way of thinking and perceiving many things of the world including urban centres. This model to some extent triggers a need of redefining the urban complexities in order of a real time situation.

Secondly, heightened understanding of people's need, translated into actionable insights that define attributes. These attributes will help in developing a City Centre's overall nature, form and feature in order to be successful; they must have formal/ informal notions that people recognise as useful, usable and desirable.

Last but not the least; it is the integration of design, marketing, land users, movement systems, density and all other urban design factors. Merely putting up these together in a multidisciplinary context will not be sufficient, because most of the land use patterns are created for political benefits. These extremely chaotic systems must be supported and managed effectively, wherein all attributes respect and appreciate the constraints of others.

Similarly most of the urban parameters are highly dynamic. It seems that these parameters need refinement and up-gradation. As it is essential to learn that life on earth is not built upon few interpretations, but allows multiple and infinite readings. Many of the contradictory systems do not necessarily cancel out each other, so there will not be few parameters, defining

systems that can be chaotic. The real crux will be seeing patterns in that chaos and find an inherent order as a phenomenon for development of future of the *City Centre*...

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The role of Aga Khan award in addressing the identity crisis in the eastern arab city

Abstract:

Identity as a significant demand for human life, embraces both our ability to recognise ourselves, and the possibility of being recognised by others. In urban mass society, identity, or rather the loss of it appears to be a growing problem. The loss of architectural identity in Eastern Arab cities and the role of Aga Khan Award for Architecture (AKAA) in addressing this crisis are the main interests of this research. In this sense, we tried to answer a critical question, through this paper; which represents the main theme of the research that is; does the framework of AKAA represent an appropriate step towards addressing critical issues related to the identity crisis in the Eastern Arab architecture? The main objective of this research is to examine the role of AKAA in addressing this crisis. To attain this objective, AKAA as a program that is interested in addressing the identity crisis in the architecture of Islamic world, of which Eastern Arab world is a part, was investigated. The investigation dealt with the appropriateness of AKAA objectives for the current situation in the region. In addition, the research examined the possible impact of the awarded projects on the identity crisis in the Eastern Arab cities and the implications for the architectural practice. This research relies on the theoretical investigation. A documentary analysis of secondary data was used to attain the objective and answer the research question. This research concluded that the AKAA objectives are appropriate to deal with the symptoms of identity crisis in the Eastern Arab architecture, and the awarded projects in this region could play an effective role in guiding the designers for the appropriate solutions. It also concluded that factors of recognition of these projects represent criteria and guidelines for designers in dealing with the architectural identity in their contemporary designs. This research proposed a number of recommendations for the municipalities of the Arab cities, schools of architecture, and practicing architects.

Identity crisis in the Eastern Arab city

Because of the great transformations that the Eastern Arab world witnessed during the last century, [Fig.1] especially in the last 25 years, the social and cultural norms have been affected negatively (Abdelsalam, Edwards, and Sibley, 2000).



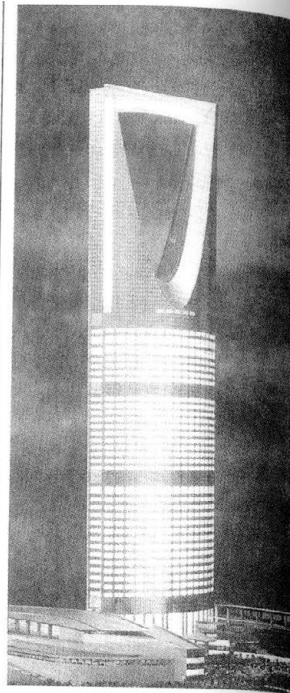
Eastern Arab cities have been subjected to pull and push forces. The authentic and traditional values pull the architecture of these cities towards an authentic character and the conservative architects call for the absolute adoption of the traditional model. While the occidental, global, and western thoughts push it away towards globalisation. The followers of this trend slipped into the blind copy of western architecture (Abdelsalam, 2002 A). Consequently,

most of the contemporary designs in the Eastern Arab cities have failed to achieve an appropriate contemporary expression that preserves the local or regional identity while responding to the contemporary needs of the Eastern Arab society (Abdelsalam, 2001).

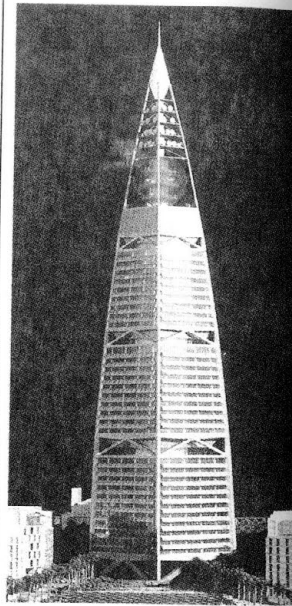
Nevertheless, the programme of Aga Khan Award for Architecture (AKAA) recognised some excellent architectural projects in this region that express the local or regional identity of the contemporary society from the Award point of view.

This crisis emerged as a consequence of the phenomenon of globalisation. In this sense, Paul Riceur points out the dilemma that non-western societies face due to the devastating invasion of western culture to the local societies and its negative impact on local cultures (Riceur, 1965). The review of thoughts and writings in the context of contemporary Arab architecture demonstrates that there is an agreement among scholars and theorists regarding the crisis of identity that we have been facing for decades. Kaizer Talib underlines the false identity in Gulf architecture as a result of the negative impact of inappropriate western architecture (Talib, 1989, p115). Khalid Asfour supports Talib's argument as he sees that a process of "cutting and pasting" was introduced to contemporary Arab architecture (Asfour, 1998). Udo Kultermann (Kultermann, 1999), Rashad Bukhash (Bukhash, 2000), Afeef Albahnasy (Albahnasy, 1989), and Salma Aldmloji (Aldmloji, 1995) have a similar view regarding the negative impact of inappropriate western architecture on the dilemma of architectural identity in Arab world.

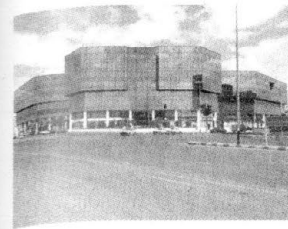
At this point we can limit the identity crisis of Arab architecture to the western thought dominance on one hand and the absence of regional and local distinction on the other hand (Abdelsalam, 2003). Through a comprehensive research carried out by the author, the specific symptoms of the identity crisis were identified as follows: (a) ignorance of local climate [Fig. 2], (b) ignorance of local materials [Fig. 3], (c) absence of



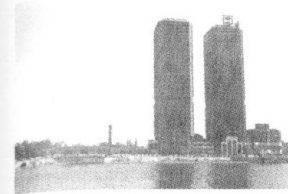
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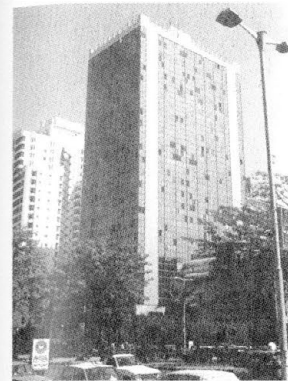
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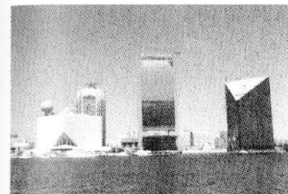
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traditional vocabularies [Fig. 4], (d) lack of integrating modern technology with the local context [Fig.5], and (e) absence of principles and values derived from the architectural heritage [Fig. 6,7] (Abdelsalam, 2002).

Reasons for choosing the programme of AKAA

We will consider the programme of AKAA for our investigation. Our choice of this programme is based on four main reasons that we can summarize as follows:

a- This unique programme focuses on addressing the crisis of local-global conflict to make the built environment more appropriate in the Muslim world of which Eastern Arab world is part. In addition to its interest in the issue of cultural and historical identity the uniqueness of this programme is based on many factors. Among these factors is the seriousness and depth with which it examines architecture in the Muslim world (Jenks, 1995, p 118). The crisis, as we explained, has a form of global thought dominance in Eastern Arab architecture. The relevance of the Award intentions to this issue could be clarified through Robert Campbell's discussion. He claims,

"nobody else is investigating the problem of striking the right balance between the local and the global like those who present the Aga Khan Award" (Campbell, 1998, p 69).

Jim Antonio (Antonio, 1983) asserts the uniqueness of this programme in the Muslim world as he indicates that it has established itself as a major and prestigious event for all involved in making the built environment more appropriate for Muslims.

b- This programme has received national and international recognition at both professional and public levels. From Campbell's point of view it is the wisest prize programme in architecture. He ascribes this to three factors: it is the most serious, the most thoroughly researched, and the most thoughtful. He claims that it is almost the only programme that deals with anything more important than the latest fashions in architecture (Campbell, 1998, p 70). The recognition is emphasized by Benjamin Forgey, who sees AKAA as a pioneer programme that the rest of the world can learn from (Forgey, 1983). Mohammed Arkoun denotes one of the important factors that led to such an international recognition. The most talented and successful architects in

the world have contributed to the Award as members either of the Master Jury or the Steering Committee (Arkoun, 1998, p 152). Such recognition supports the reliance on this programme in examining issues related to the architectural crisis in Arab world and resolving any debate concerning the reliability and validity of this reliance.

c- The Award has been giving Eastern Arab architecture a remarkable interest through its last eight cycles. Through the last seven Award cycles (since its beginning in 1977), 560 projects from the thirteen countries of the Eastern Arab world were considered for the Award. These projects were nominated. Many of them were presented, some of them were technically reviewed, and others were awarded. This number represents more than one third of the total number of projects that were considered for the Award from the Muslim communities all over the world (1616 projects). The Award's interest in addressing the architectural crisis in this region is a part of its comprehensive interest in the built environment in the Muslim world. This interest supports our selection of this programme for this research.

d- Our investigation focuses on the architectural crisis in Eastern Arab countries since the mid 1970s. This period coincides with the Award's time span, which started after the mid 1970s. It means that all the problems and contradictions of this specific period that we are dealing with were considered and addressed by the Award programme. This leads us to argue that all the recognised projects of this region presented different approaches for resolving the emerged problems and contradiction in this region at that period. It is clear that there is a coincidence in time and place of our investigation with those of AKAA, in addition to the coincidence of the main objective. All of these factors support the selection of AKAA programme for this investigation.

The framework of AKAA

The Award intention is to encourage a more appropriate architecture in the spirit of Islam through integrating cultural traditions with modern technology. This represents the general message of the Award, which it attempts to convey through its comprehensive activities. However, the programme of AKAA has specific objectives that interpret its general message and express its intentions. These objectives represent the first constituent part of the Award framework. They are invariable for the different Award cycles. We can

argue that they form the backbone of the Award and play a major role in guiding its continuous search for excellence in architecture of Muslim communities. The second constituent part of the Award framework is the factor of recognition of the awarded projects, which represent significance of these projects from the Master Jury point of view.

Objectives of the Aga Khan Award for Architecture

It is the Master Jury assignment to examine the attainment of these objectives in the nominated projects. The awarded project should convey a certain message to the public and profession. This message interprets one of the Award objectives. We can argue that for the Award, the project serves as a medium to convey a certain message and attain the objectives. These objectives were set by the Award since the first cycle. However, the members of the steering committees and Master juries have different expressions for these objectives within the original context. We can summarize these expressions as follows:

. James Steele expresses the first objective as; "*to increase public awareness of Islamic culture*" (Steele, 1994, p 29).

. Steele expresses also the second objective as; "*to create a forum for examining the appropriateness of contemporary architecture through the extremely diverse community of Muslims worldwide*" (Steele, 1994, p 30).

. Ismail Serageldin expresses the third objective as; "*to bring to the attention of the world examples of architectural excellence from within the Muslim world*" (Serageldin, 1995, p 13).

. Serageldin expresses also the fourth objective as; "*to sensitise those who would build in the Muslim world to the unique heritage of Muslim art and architecture*" (Serageldin, 1989, p 16).

. Oleg Grabar expresses the fifth objective as; "*to look with care, intelligence, and affection at the traditional structures of the environment in which Muslims live now and have lived in the past*" (Grabar, 1994, p7).

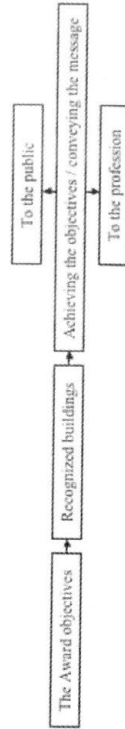
Steel, Serageldin, and Grabar have served as members of the steering committee or Master Juries through different Award

cycles. It is clear that AKAA focuses on five major issues that are: (1) public awareness of Islamic culture, (2) Contemporary architecture in the Islamic world, (3) architectural excellence, (4) Islamic architectural heritage, and (5) traditional architecture.

Achieving the AKAA objectives

After defining the specific objectives of AKAA, a critical question is posed, which is, how these objectives can be achieved. The Award searches for architectural developments in the Muslim world that reflect issues related to these objectives. By recognizing these projects and emphasizing the significant issues, the Award can convey its message to the public and profession and attain its objectives. It means that the Award's tool to achieve its objectives is to recognise projects in the Muslim world or for Muslim communities everywhere all over the world. These projects should interpret the objectives and convey the Award message to the public and the profession. In this case, recognizing the project is not for the sake of recognition. The project is simply the means through which the Award conveys its message to the public and profession. [Fig. 8] shows a structural diagram for achieving the Award objectives and conveying its messages.

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Appropriateness of AKAA objectives for the current situation in Eastern Arab architecture

The current situation in Eastern Arab architecture is characterised by the dominance of western thought on one hand, and the absence of local and regional distinction on the other hand. These are the two key factors of the identity crisis in the region. In this research, we will examine the appropriateness of AKAA objectives to address this crisis, and define to what extent these objectives meet the reality of Eastern Arab architecture. To carry out this investigation, each Award objective will be analysed according to its relevance to the crisis symptoms and the current situation in Eastern Arab architecture.

Objective one: Public awareness

The first objective of AKAA is to increase public awareness of Islamic culture. In Eastern Arab world, as we indicated previously, the most significant feature of the identity crisis is the dominance of inappropriate western thought. The first thing that is negatively affected by this dominance is the local thought and norms. The thought and norms are an expression of the local culture, which is in this case the Islamic culture. Hence, we can argue that the dominance of inappropriate western thought, which characterized Eastern Arab architecture, hindered the Islamic culture in this region. At this point, it is clear that the dominance of inappropriate western thought in Eastern Arab architecture has a negative impact on public awareness of Islamic culture. By its endeavour to increase public awareness of Islamic culture, the AKAA confronts this dominance.

Objective two: Contemporary architecture

The second objective of AKAA is to create a forum for examining the appropriateness of contemporary architecture through the extremely diverse community of Muslims worldwide. The Award examines the possible choices and assesses their appropriateness for contemporary Muslim architecture. In attaining its objective of creating a forum for examining the appropriateness of contemporary architecture, the AKAA searches for projects that recognise local values and heritage, and integrate them with contemporary needs. As we explained in this research, the absence of principles and values derived from the Islamic architectural heritage is one of the crisis symptoms in Eastern Arab architecture. It is clear that in its search for the appropriate contemporary architecture, the Award deals with these principles and values.

Objective three: Architectural excellence

The third objective of AKAA is to bring to the attention of the world examples of architectural excellence from within the Muslim world. In its search for architectural excellence, the Award focuses on innovation and excellence in social and cultural sense. Serageldin denotes the Award's interpretation of innovation in the awarded projects. These projects reflect new

solutions not just to old problems, but to new problems that are not yet fully posed. New solutions require leaps of the imagination that break with the conventional and define possibilities not perceived by others (Serageldin, 1995, p 14). It is clear that innovation as a constituent element of architectural excellence is based on the imaginative abilities of the designer. In a similar way, excellence in a social and cultural sense is a reflection of innovative and creative solutions of social and cultural problems. From this discussion, we aim to clarify the architectural excellence that AKAA focuses on as one of its objectives. If we look at the five symptoms of the crisis in Eastern Arab architecture, we find that all of these symptoms represent a hindrance of innovation at many levels.

Objective four: Islamic architectural heritage

The fourth objective of AKAA is *to sensitise those who would build in the Muslim world to the unique heritage of Muslim art and architecture*. The Award intention is to remind those who would build in the Muslim world of the Islamic architectural heritage at two levels; content and form. "Content" of Islamic architecture reflects its values and principles, while its "form" expresses its elements and vocabularies. The AKAA aims to sensitise architects to adopt these values, principles, and elements in their contemporary designs. When we look at the symptoms of the identity crisis in Eastern Arab architecture, we find that the absence of principles and values derived from the architectural heritage is evident. As the heritage of this region is Islamic, the architectural heritage expresses the Islamic architectural heritage of the region.

Objective five: Traditional architecture

The fifth objective of AKAA is *to look with care, intelligence, and affection at the traditional structures of the environments in which Muslims live now and have lived in the past*. Through this objective, the Award calls for investigating and taking lessons from the traditional built environment. These lessons could be drawn at the content or form level or both. Renata Holod denotes one of the criteria used by the Award to attain this objective, which is the contemporary use of a traditional building language in a search for a new architectural idiom (Holod, 1983, p 14). James Steele discusses a different approach as he indicates that the re-use of traditional forms

and decoration reawakened a controversial issue that has run through recent Award cycles. This issue concerns the blind copy of forms from the past without a full understanding of their meaning (Steele, 1994, p 31). It is clear that employing traditional language in contemporary designs should be based on full understanding of its deep meaning rather than its surface features. This is what the AKAA means by looking with care, intelligence, and affection at the traditional structures. When we look at the symptoms of identity crisis in Eastern Arab architecture, we find among them the absence of traditional vocabularies. Yet, objective five of AKAA concerns this symptom.

From the previous investigation, we can conclude that the five objectives of AKAA are appropriate to deal with symptoms of the identity crisis in Eastern Arab architecture. As these symptoms represent the current situation in Eastern Arab architecture, the Award objectives have relevance to contemporary practice in this region. However, appropriateness of the AKAA objectives for the current situation in Eastern Arab architecture does not mean that the AKAA framework provides an appropriate approach to address the architectural crisis in the region. The ways through which these objectives are achieved need to be discussed to examine if these ways work to address the crisis. As we explained, factors of recognition of the awarded projects are interpretations of the Award objectives through the projects. It means that they reflect the ways of achieving the objectives.

Factors of recognition of the awarded projects

Before investigating factors of recognition, we need to define what we mean by this term. The Master jury citation of the awarded projects defines their factors of recognition, which emphasize and highlight the projects' significance. It means that factors of recognition of AKAA projects are the factors of significance of the awarded projects from the Award point of view. The importance of these factors relies on two elements; firstly, they express the architectural significance of the awarded projects, and secondly, they interpret the Award objectives in the projects.

In the present research we will focus on factors of recognition of the awarded projects in the Eastern Arab world. These factors represent the factors of significance of good architecture in this region from the AKAA point of view. We can

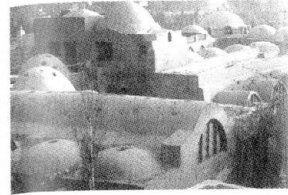
argue that these factors serve as distinctive characteristics or criteria for an appropriate contemporary architecture in Eastern Arab world. If we look at factors of recognition of the awarded projects in the region, we can classify them into seven themes that are related to AKAA objectives. These themes are: (a) the prevailing customs, (b) local environment and heritage, (c) local architecture, (d) design principles of traditional architecture, (e) innovation, (f) modern technology, and (g) elements of traditional architecture. We will discuss these themes and define the related factors as follows.

Lessons from the awarded projects for addressing the identity crisis in Eastern Arab architecture

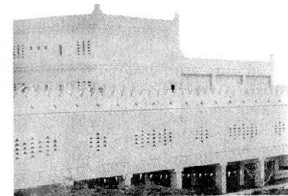
In this investigation, we will focus on the second constituent part of AKAA framework, which is the factors of recognition of the awarded projects in Eastern Arab countries. The outcome of AKAA efforts in achieving its objectives, which is a group of recognised projects, will be investigated. As we concluded in the previous investigation, AKAA objectives are appropriate to deal with symptoms of the identity crisis in Eastern Arab architecture. In this investigation, we examine the factors of recognition of the awarded projects and its appropriateness to address the symptoms of architectural crisis in this region. Fourteen architectural projects were recognised in the Eastern Arab countries since the first cycle in 1980 till the last cycle in 2001. Each project poses certain issues and deals with problems related to the current situation from the Master Jury's point of view. The factors of recognition of these projects will be analysed according to their relevance to the symptoms of architectural crisis. These symptoms represent categories for analysing the factors of recognition.

Expressing climatic considerations

As we indicated in this study, the first symptom of the identity crisis in Eastern Arab architecture is ignorance of the local climate. This symptom represents a common problem in the architectural developments in the region. Accordingly, the Award has given a special interest to resolve this problem. It recognised projects that present promising solutions and



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approaches for dealing with climatic issues. If we look at factors of recognition of the awarded projects in Eastern Arab countries, we find that three projects were recognised for reasons related to climatic considerations. These projects are: Ramses Wasef Arts Centre, Halawa Residence, and Al-Kindi Plaza. Factors of recognition of these projects will be analysed according to the response to local climate to examine the appropriateness of these projects to resolve this problem through introducing solutions and approaches.

The first factor of recognition that dealt with issues related to local climate is *the perfect understanding of the local environment and heritage*. This factor expresses the architectural significance of two awarded projects in Eastern Arab countries that are Ramses Wassa Wassef Arts Centre in Egypt [Fig. 9] and Halawa Residence in Egypt also. From the Master Jury's point of view, Ramses Wassef Arts Center is perfectly adapted to its environment (AKAA Master Jury, 1985). If we focus on the climatic considerations, we can argue that the project reflects a perfect response to the local hot arid climate by adopting elements of traditional architecture. It is clear that this project gives a good example for addressing the climatic issues in Eastern Arab architecture.

Another factor of recognition, which is related to climatic considerations, is *the successful re-use of traditional architectural thoughts and elements*. This factor expresses the architectural significance of the project of Al-Kindi Plaza in Riyadh [Fig. 10]. This project is an example of the absolute adoption of the traditional model. One of the main principles of traditional architecture is the response to local climate. This factor is manifested in the project through the use of internal courtyards with plants and water features and small openings in the external facades to create the appropriate internal microclimate. Around the central plaza, arcades and shaded areas are used to protect people from the harsh climate in summer. The composition of the project is compact and organized to give maximum shading. These elements denote that this project presents a specific and perhaps generic solution for climatic issues in Eastern Arab architecture.

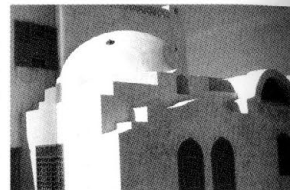
The use of local building materials

Ignorance of local materials is the second symptom of the identity crisis in Eastern Arab architecture. Inappropriate

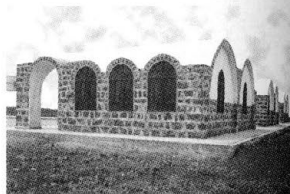
imported or manufactured building materials replaced the local materials. This phenomenon characterized the western oriented thought in this region. If we look at the awarded projects in the Eastern Arab countries and their factors of recognition, we realize that the AKAAs have focused on issues related to the use of local building materials in its continuous search for the appropriate architecture in Muslim communities. Three projects were recognised in this region for reasons related to the use of local building materials. These projects are: Ramses Wasef Arts Centre, Halawa Residence, and Stone Building System. Factors of recognition of these projects will be analysed according to the use of local materials. This analysis enables us to define the appropriateness of these factors to deal with the problem of ignorance of local materials. The projects Ramses Wissa Wassef Arts Centre and Halawa Residence in Egypt were recognised for *the perfect understanding of the local environment and heritage*. When we deal with local building materials, the perfect understanding of the local environment reflects the role of earth as a building material. In Halawa Residence [Fig. 11] the ancient Upper Egyptian tradition of masonry construction was employed. The undressed local limestone is the main building material, in addition to burnt red brick. The Award interest in recognising initiatives that deal with the issue of local building materials is manifested through recognising a stone building system, which was used in building four primary schools in Syria [Fig. 12]. The Master Jury found this system a strong design, a wise plan, and a rational product, which can be applied to all other types of rural construction where stone is available (AKAA Master Jury, 1992). In this project, the local basalt stone was used in the vaulted construction. The designer used the local building material and local techniques that reflect the potentials of this material.

The Impact of traditional architecture

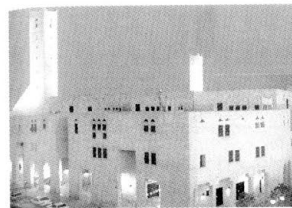
As we indicated previously in this study, the absence of traditional vocabularies is one of the symptoms of identity crisis in Eastern Arab architecture. In this investigation, we will try to define if the AKAAs have dealt with this issue through the awarded projects in this region, and to what extent the recognised projects introduce appropriate solutions. The Award has recognised three projects for reasons related to the impact of traditional architecture on contemporary design. These projects are the Great Mosque of Riyadh and Al-Kindi Plaza. Both of projects are in Riyadh and were influenced



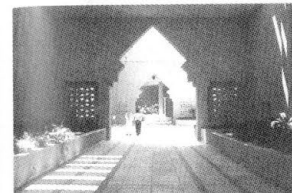
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by the traditional Najdi style of the region. The third project is the Nubian Museum in Egypt. We will investigate factors of recognition of these projects and examine their appropriateness to deal with the issue of traditional architecture impact on contemporary designs.

The project of Great Mosque of Riyadh [Fig. 13] was recognised for *redefining the local architecture in contemporary methods, materials, and construction techniques*. Local architecture here is the traditional Najdi architecture. From the factor of recognition of this project, we understand that the traditional Najdi architecture was reinterpreted rather than copied. The designer re-created the spatial character of the Najdi architectural idiom without copying it. This project introduces an appropriate approach for dealing with traditional vocabularies and elements in contemporary designs. This approach is based on redefining these vocabularies and elements by using the designer's creativity in reinterpreting them in a contemporary manner.

Another factor of recognition, which is related to the impact of traditional architecture on contemporary designs, is *the successful re-use of traditional architectural thoughts and elements*. This factor of recognition expresses the architectural significance of the project of Al-Kindi Plaza in Riyadh [Fig. 14]. In this case, the traditional architectural elements were re-used rather than re-defined. It means that these elements were copied from the original Najdi architecture and employed in this contemporary building. It is an absolute adoption of the traditional model without any intervention from the designer to create contemporary expressions. This project introduces another approach for dealing with traditional vocabularies and elements, which is based on the absolute adoption of the traditional model. However, this approach is inappropriate to be generalized in all cases in contemporary Eastern Arab architecture as it ignores the contemporary expressions. Yet, in some cases, where the context is traditional or historic, this approach is appropriate.

Expressing local culture and values

The absence of principles and values derived from the architectural heritage is one of the crisis symptoms in Eastern Arab architecture. It is important to denote that the architectural heritage of the region (Islamic Arab architecture)

embraces many values and principles at different levels. However, we will focus here on values and principles that are related to the factors of recognition of the awarded projects in Eastern Arab countries. These factors will be analysed to examine their appropriateness to deal with the absence of values derived from the heritage. Since its beginning, the AKAA has recognised three projects in the region for reasons related to principles and values derived from the architectural heritage. These projects are the Cultural Park for Children in Cairo, Ministry of Foreign Affairs in Riyadh, and SOS Children's Village in Jordan.

The AKAA recognised the project of Cultural Park for Children [Fig. 15] for *the ingenuous expression and enhancement of the prevailing customs*. From the Master Jury's point of view, this project has generated a renewed sense of community by extending its presence into the surrounding streets (AKAA Master Jury, 1992). This presence was attained through developing some activities on the adjacent Abu Aldahab Street to express the prevailing customs and traditions. In view of the fact that expressing and enhancing the prevailing customs and traditions is one of the principles of architectural heritage, we can argue that this factor of recognition is appropriate to deal with the absence of these principles in Eastern Arab architecture.

The second project, which the Award recognised for reasons related to principles and values of the architectural heritage is the Ministry of Foreign Affairs in Riyadh [Fig. 16]. The Master Jury recognised this project for *the contemporary expression of design principles of traditional architecture*. It is important to distinguish between design principles and values of traditional architecture on one hand, and design elements and vocabularies on the other hand. The AKAA recognised the intelligent use and interpretation of general Islamic urban concepts. These concepts are manifested in the organization of interior spaces. These lively, exciting, and spectacular spaces are hierarchically organised around streets. This concept is derived from principles of traditional urban fabric in old Islamic districts. The designer wanted also to incorporate the basic principles of Islamic traditional design with contemporary architectural language.

The use of modern technology

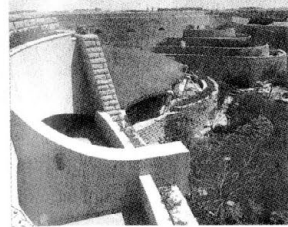
The lack of integrating modern technology with the local



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context is among the symptoms of identity crisis in Eastern Arab architecture. In this investigation, we will go through the awarded projects of AKAA in this region and define the projects that deal with this issue. Then, we will examine the appropriateness of the factors of recognition of these projects to present solutions for this problem. If we look at the awarded projects in this region, we find that the AKAA has recognised three projects for reasons related to the use of modern technology. These projects are Tuwaiq Palace in Riyadh, Hajj Terminal in Jeddah, and Intercontinental Hotel and Conference Centre in Makkah. The number of recognised projects reflects the AKAA interest in the issue of employing modern technology in contemporary designs in the region.

The projects of Tuwaiq Palace and Hajj Terminal were recognised for *the architectural quality and innovative approach*. In Tuwaiq Palace [Fig. 17] the Master Jury recognised the architectural quality of the project. This quality is manifested in the idea of soft fortification, which integrated hard and soft spaces. The combination of concrete, stone, tensile structures, and landscaping reflects another aspect of the architectural quality. Modern technology represents an important aspect of the architectural quality of the project. Three white Teflon tents pitched on the exterior walls are used to provide sheltered views of the desert for those inside. This reinterpretation reflects a successful marriage of tradition and high tech.

Another factor of recognition, which is related to the lack of integrating modern technology with local values, is taking full advantage of the modern technology. This factor of recognition expresses the architectural significance of the project of Intercontinental Hotel and Conference Centre in Makkah [Fig. 18]. The use of modern technology is manifested through the structure system of the auditorium. It is the first hanging roof structure in the Middle East and it is the first of its kind anywhere to rely on the weight of the roof itself to balance uplift forces. The tent-like roof of the conference centre demonstrates that advanced technology was employed to enhance local values and reflect traditional symbols. The Master Jury denotes this point as an effort to combine modern technology and functional forms in the context of Islamic culture (AKAA Master Jury, 1983).

Conclusion

Seven factors of recognition of the awarded projects in Eastern Arab countries were analysed in the previous investigation to examine their appropriateness to address the symptoms of architectural crisis in this region. The general aim of the investigation was to identify if these awarded projects could influence the architectural situation in this region through introducing promising approaches and solutions for the identity crisis. We can summarize the conclusions of this investigation as follows:

. The seven factors of recognition are appropriate to deal with issues related to the symptoms of identity crisis in this region.

. The awarded projects play a significant role in guiding the designers in their continuous search for appropriate solutions that avoid the crisis symptoms.

. AKAAs objectives are appropriate for dealing with the current architectural situation in this region.

. The framework of AKAAs represents an appropriate step towards addressing the identity crisis in this region. The Award succeeded in this area by setting up objectives related to the crisis and recognised projects that introduces solutions and approaches for addressing this crisis.

Recommendations

. In the design process, the factors of recognition of the awarded projects can serve as design principles and guidelines to control and guide the process of maintaining the local identity in contemporary designs.

. This research recommends the use of the factors of recognition as design controls that the municipalities and governmental organisations can impose to maintain the local identity in the contemporary designs.

. In architecture education, the factors of recognition can be used as a basis for a comprehensive framework for teaching and training the students how to deal with the expression of identity in the built environment.

. This research recommends that developers who are interested in maintaining local identity in their architectural developments can add the factors of recognition of the awarded projects as design principles and guidelines to the design brief given to architects.

. In architectural criticism, the factors of recognition can be employed as a basis for a framework of criticising the expression of identity in architecture.

Acknowledgement

This research could not have been completed without the help and support at many levels of Dr. Suha Ozkan, the Secretary General of The Aga Khan Award for Architecture. It is only fair that I take this opportunity to express my gratitude to him.

Discourse in Architecture Is Symptomatic

... for better and worse, the 'post-critical' phase in architecture is inherently hysterical

The most important boundary in human life is that between life and death; this is not a single but a double line (explanation below, eventually). What — and why — does Hitchcock's film *North by Northwest* teach us about this resulting "imaginary space" between life and death?

I am but mad north-north-west: when the wind is southerly I know a hawk from a handsaw.

Hamlet, in William Shakespeare, *Hamlet*, scene 2, act 2

If one wants metaphors, it would be better to say that the body sensed and the body sentient are as the obverse and the reverse, or again, as two segments of one sole circular course which goes above from left to right and below from right to left, but which is but one sole movement in its two phases.

Maurice Merleau-Ponty, *The Visible and the Invisible*, p. 138.

Some believe that architecture's undertaking of *critical studies* has been a night journey in a rented boat. By misreading primary sources; remaining silent about the political structures of postmodernism, and appropriating ideas and ideologies of circumstantial culture, we have unintentionally proved what FBI Agent Mulder says in *The X-Files*, "the truth is out there."

What if this inadvertent trend towards popularization were taken literally, at face value, as a set of symptoms? One symptom, a collective short attention-span, would invite us to discover and employ useful anachronisms. Marshall McLuhan's *Understanding Media*, written before computers, presciently demonstrated the significance of screens constructed in the midst of perceptual and imaginative life. Jacques Lacan, another screen theorist, has already been resuscitated by Slavoj Žižek to make popular culture clairvoyant. Giambattista Vico, anachronistically an early Lacanian, rounds off our trio with a theory of reading adequate to the idea of an *out-there mind*.

These three thinkers call for what amounts to a *second text*.

A second text resembles what the spiritualists of the early 20th century called automatic-writing. This argues for a radical popular-culturization of architecture theory, a case made more easily through an example. No better symptom describes the inside-out cultural condition of theory than hysteria, and there can be no finer example of hysteria in art than Alfred Hitchcock's *North by Northwest* (1959). *North by Northwest*'s cold-war dichotomies are even more appropriate in the sweltering heat of post-nine/eleven. This film makes it seem, preposterously, that Hitchcock was reading Lacan and, through Lacan, Vico. This trip along a *North by Northwest* line aims to substitute a *hysterical* program in favor of current models of the body in architecture and art. Hysteria is the means of returning to the *primary evidence* of such fundamental sources as Merleau-Ponty, Lacan, Hegel, Vico, and even Plato in order to *correct the record* through a reading of the second texts, a symptomology. Hysteria, more than a psychiatric disorder, operates in the Lacanian zone *between the two deaths*, a highly architectural and cultural interval where body and spirit continually exchange roles and garments. As Lacan points out, the mind-body dualism is not so much of a *problem* as it is a topology, and this topology has been written into the architecture of every culture, every period, every material circumstance.

Hysteria

What better way to approach the classical philosophical problem of the relation of mind and body than through the notion of hysteria, where popular culture and medical practice intersect with the utmost precision?

The clinical definition of *conversion disorder* — clinicians have generally avoided the term *hysteria* — focuses on two primary characteristics. First, the hysterical symptom (loss of eyesight, hearing, motility, etc.) is an “*expression of an underlying psychological conflict or need*”; second, the sign is *involuntary*, not as a conscious *call for help* of a patient who seeks to draw attention to some social or mental condition. Despite this, the patient often seems to *enjoy the symptoms*. Pleasure in the a-symbolic mechanisms of hysteria are the key to how hysteria relates to art. In Lacan's expanded view of Freud's classic placement of hysteria as one of the four *psychic structures* (hysteria, obsessional neurosis, perversion, and psychosis). Hysteria inverts the relation of orgasm to pleasure. In

orgasm, the individual is unconscious of the actual pain involved (an increase of tension) and is aware only of the pleasure (*jouissance*) of the sexual act. The hysteric inverts this relation, being conscious of the pain of symptoms while being unaware of the pleasure they actually cause. This converts *jouissance* into the broader concept of the unsymbolizable “*object-cause of desire*,” particularly in situations where consciousness is artificially suspended, as in art's use of techniques to sublimate and conceal themes, identities, and/or lines of action.

The pleasure of pain might be called the discerning characteristic of the crime thriller, where victims of violence abound and wrongfully accused heroes confront seemingly insurmountable obstacles and the audience is subjected to suspense, fright, and shock. The idea of *unconscious pleasure* might also attach itself to the artistic principle of the subplot, suspense, doubles, travel through time, contamination of reality, and other techniques by which the audience is allowed to *possess* knowledge without consciously knowing they possess it and experience pleasure under the conscious flag of fear and suspense.

A quality of hysteria equally useful to art is the *negative geometry* by which the hero, confronted by pains and difficulties that the audience knows will be liquidated by the end of the story, becomes the center of hostile attention. In *North by Northwest*, Roger O. Thornhill goes to the United Nations to meet up with Lester Townsend, the alleged owner of the mansion where he was imprisoned and drugged. Townsend turns out not to be the same man who threatened him the night before, but a kindly diplomat who stays in his city apartment while the U. N. is in session. Before Townsend can identify the false host's identity in a photograph Thornhill has found, he's hit by a dagger tossed by a Russian spy lurking at the edge of the room. Townsend falls into Thornhill's arms, Thornhill grabs the dagger, and everyone turns towards him fully believing him to be the assassin. To put a really fine point on the matter, a photographer, who was seconds before documenting the visitation of African delegates, takes an incriminating shot of Thornhill holding the knife over the fallen corpse of Townsend [Fig. 1].



This assassination elevates Thornhill to the status of the *most-wanted* — the hysteric's perfect formula of the unconscious desire for *unwanted* attention. The subject's conflict is double-layered.

There is the threatening presence of the Other (the police at Penn Station, the suspicious ticket agent, the detectives searching the train); to this we must also add the Other of the Other, the ring of spies headed by the cultured Vandamm, who think that Thornhill is the non-existent decoy, George Kaplan. What has held these competing Others at bay, what has kept them in a harmless gavotte, has been the *idiotic symmetry* sustained by the decoy Kaplan. The circularity of the forces of East and West, the stasis of the Cold War, is maintained *as long as* Kaplan's absurd/idiotic status is maintained.

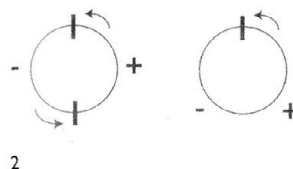
How is that status disrupted? Thornhill arranges to meet friends for lunch at the Plaza Hotel. In a lounge, the chums chat together over drinks. A bell-hop pages George Kaplan. At that same moment, Thornhill realizes he must call his secretary to say that his mother is playing bridge and won't be reachable by phone that afternoon. He stands up and consults with the bell-hop, but the spies observing from the side of the room conclude that he is Kaplan replying to the page.

The confusion stems from a switch. What was simply an *artifact* of lounge behavior was seen to be *representative* of the identity of Kaplan. An unconscious movement, the consequence of an unrelated motive, was interpreted as a meaningful gesture in the context of the search for Kaplan. Artifact is what is used in acts of representation but what *should remain neutral* in conventional circumstances. Thus, conventional communication *assigns* customary meanings but suppresses other, accidental features of the artifact. *Goodbye* no longer conventionally means "*God be with you.*" It can be uttered by atheists and believers alike, since the etymological artifacts and the poetic undertones are suppressed. When Thornhill uses sunglasses (a symptom of his conversion hysteria?) to avoid the gaze of the Other, he makes an artifact — an optional article of attire — into a *sign* of his guilt, recognized by the alert clerk at the ticket window.

Artifact and representation are graphically *orthogonal* in that, like two vectors at a right-angle, they are connected but independent, like the x-y axes of statistical data. Significantly, hysteria is a similarly *orthogonal* relationship of the vectors of mind and body. The mind in turmoil leads to an external, bodily symptom. The relation has to be guessed by the therapist; it is unconscious and involuntary for the patient. In *North by Northwest*, Thornhill is a hysteric on several counts. His

garrulousness in the opening scene with his secretary reveals him to be a man with a troubled personal life. He's dictating letters to his fiancé to elude harsh judgment. At the same time, he steals a cab from a fellow pedestrian by claiming that his secretary is unwell. When she protests this lie, he defends his action by noting that "*In advertising, there's no such thing as a lie, only expedient exaggeration.*" Besides, he notes, he did the fellow a favor by making him feel gallant and unselfish. Thornhill, a typical advertising man, subscribes to a degraded pragmatism, the arrangement of dubious and sometimes unethical methods to produce the desired effects.

Like the opposition between Big Others, Thornhill's cynicism might have continued uninterrupted because of the same *idiotic symmetry* that was sustaining the Cold War. In close proximity, cause and effect are not linear but circular. The ethics of one depends on the lack of ethics of the other. In the logic of electronic circuits, the model would be of a *transitive* condition. In a closed circuit, two inverter switches are required to stabilize a circuit into positively and negatively charged sides. One switch converts the current from positive to negative, the other from negative back to positive. In *North by Northwest*, the American CIA creates a non-existent spy, George Kaplan, whose staged movements leads the Russian KGB on a wild goose chase. The stimulus effectively elicits the desired response. When Thornhill accidentally fills the place of the empty signifier, however, the effect is as if one of the inverter switches has been removed [Fig. 2].



One way of reading *North by Northwest* as a circuit is to say that, in the transitive position (left), the KGB (+) is always arriving at a place vacated by Kaplan (-) and will continue to do so because their arrival triggers a move by the CIA. When Thornhill fills the empty spot, one of the converters is removed (i.e. the empty spot is no longer empty) and the circuit is *intransitive*. This is equivalent to the phenomenon of *feedback* or *self-reference*. This elusive, *circulating gap* continues to separate contradictory parts of this model *as long as they and it are in motion*, but the stability of the circuit has been undermined by this gap.

What is this gap in broader cultural terms? To borrow a phrase from Lacan, who appropriates it from ethnology, it is the gap "*between the two deaths.*"

Between the two deaths: art in general as haunting

The idea that there are two deaths, not one, and that the first death is *merely* corporal while the second “settles the soul for good” by fixing it within an imagined cosmic domain, is present in almost every culture. Perhaps this interval *between the two deaths* is a necessary reconciliation of the equally widespread conception of human being as both body and soul. The body’s relative vulnerability in comparison to the more symbolically durable components of the soul — personality, qualities, fate, name, rank — must be resolved by *two deaths*, if only to recast the relation of mind and body as an *interval*, which we must later characterize as an *interpolation* that projects the interval as a puzzle, journey, trial, or dream.

According to seemingly universal practice of exporting ideas created in one context to serve in other contexts, this interval is virtually — literally *virtually* — everywhere in the human world. It is most certainly in art, where it serves as a model for *the experience of art itself*, where the audience dies” in the implicit command to sit still and be silent, and *dies* a second time in the conclusion of the work (*anagnorisis*), just in time to return to the everyday world.

This crossover from mortuary myth to rules of entertaining puts so-called *reception theory* in a new light. If art is, in truth, most like the interval between the imagined *two deaths* of the human being, then metaphors that treat human death — themselves a matter of art and imagination — are even more informative about art itself. In this matter, *haunting* might be an accurate and fair description of the reception of art; and the technical, mechanical operations of the creation, performance and display of art might be better represented by the paraphernalia of haunting in the uncanny particulars of phantasms, ectoplasm, spirit possession, and reincarnation.

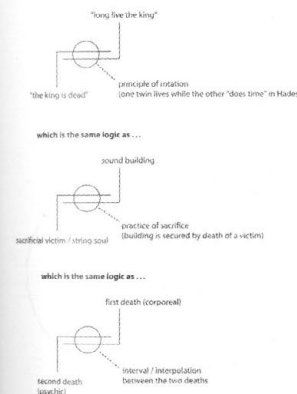
What if theory were to explore the crossover between eschatology and art? It would first benefit by taking a few lessons from the cultural practices that have mined the same connection. As venerable a source as Sir James Frazer’s *The Golden Bough* records the adventures of Romanian entrepreneurs who facilitated the protection of new buildings with human sacrifice. To avoid the gruesome and illegal practice of ritual murder, an unknowing victim’s shadow was captured by

measuring it with a string. The strings, charged with souls of various status, were collected by *shadow salesmen* who marketed them to builders. A builder selected a string charged with a soul corresponding to the prestige and expense of the new edifice and then plastered the string within the foundations. The victim, quite unaware of the theft, would later sicken and die of *natural causes* without implicating the contractor or unscrupulous shadow salesman.

Between the theft of the soul using the string to measure the shadow of the victim and the final *empirical* death of the victim, the interval of transport and salesmanship substituted handily for the more traditional selection of victims in less politically correct times. In some cultures, a stranger passing through town would be elected mock king and given privileges and honors until the moment of sacrifice. Behind this notion that death secures life is the idea of the twin heroes, kings, or city founders who take turns in Hades to insure continual rule by embodying the balance of death and life. *The king is dead; long live the king* summarizes this logic, whose *idiotic symmetry* is actually a proposition about the radical, internally self-distinguishing nature of the human world. Topologically, we (humans) are a self-distinguishing distinction capable of creating symmetries that, in their characteristic *falling short of perfection* — the left and right are always *slightly* but *fundamentally* different — achieve both autonomy and fecundity.

These examples suggest that the geography, or rather topology, of the space-time between the symbolic two deaths is quite complex. In a sense, the circuit diagram describing Thornhill’s accidental removal of the negative side of the equation separating the KGB and CIA applies to the general condition of the soul *between the two deaths*. The instability corresponds to the necessity for taking ritualized psychic care. The *short circuit* in this more general case is the connection between the *free radicals* at the top and bottom of the diagrams [Fig. 3-5], where simple contradiction is complemented by an *anamorphic* element at the juncture of the two conflicting systems that condenses and intensifies the conflict. In effect, Thornhill is that anamorphic (disguised, fugitive) element.

One way to approach interpolation is through the model of



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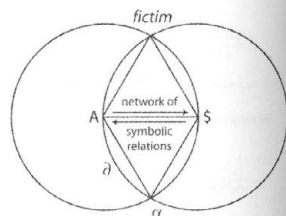
Hegelian dialectic: not the popularized distortion of *thesis*, *antithesis*, *synthesis* but the real sequence of the *Phenomenology*, where each motion of the mind to liquidate some lack is met with a new kind of problem, an insoluble kernel that sparks a new motion towards a refined but more perplexing target. This model affects all kinds of pairs defined by polar opposition. In effect, it argues that there is no *resolution* of such problematic contrasts as that between body and mind. Instead, the relationship is an *interpolation*, where two visible points (the poles) are regulated by one — sometimes more than one — seemingly remote, nearly invisible remainder or surplus element. As Wallace Stevens wrote in *Thirteen Ways of Looking at a Blackbird*,

When the blackbird flew out of sight,
It marked the edge
Of one of many circles.

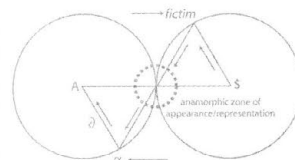
The lesson of Hegel's dialectic is that the motion of desire towards some articulated goal ends in failure but that this failure opens up a new layer of signification, which brings *depth* to the original back-and-forth motion of desire. Isn't this also a lesson about what Lacan coined as *sliding signifiers*, the tendency of any system of signifiers to be undermined by an authority that "*remains out of sight*" but yet binds the subject, who is supposed to be able to decode the incomplete, defective message?

A readily digestible example of the latter is the post-9/11 practice of issuing *alerts* symbolized by colors (green, yellow, orange, red) to indicate danger-levels of terrorist attack. The authority in this case is really an amalgam of invisibles — both the hypothetical terrorists and the government forces intending to stop them — because both operate within a cloak of secrecy yet radically trouble the anxious public mind. The desire for safety is this directed towards an *empty directive* (the instructions are only to "*continue behaving as usual*") and meaning is controlled by the *inaccessible locations* of centralized secret decision-making. In this case, two centers recreate the ancient mystic device, the *vesica pisces*, two intersecting circles constructed so that two equilateral triangles fit within their overlap [Fig. 6].

The coincident bases of these triangles constitute the



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back-and-forth communications (the *network of symbolic relationships*) that bind subjects with authoritarian centers of power. The vertex of the upper triangle locates the position of a subject able, because of the intersection of circles, to access the authority of 'A', the Lacanian *Big Other*. The tip of the lower triangle is the object-cause of desire, with immediate connection to the center of the Big Other (a line properly labeled as ∂ , "*desire*") though growing out of the barred subject's immobilized state. The *vesica* can be seen as the folded form of an *unpacked analemma* (Fig. 1.5). Here, circulation along the circumferences accomplishes a narrative that clarifies and orders the subject, desire, and centers of power. The triangles slide past each other until they are joined only at one common vertex. This is the anamorphic edge, which retains its former identity as a subjective and objective center. It is the "*Red*" location of all appearances, all significations, because it relates the concealed surplus/lack of the Other within a cyclical (actually "figure 8") roundabout. Taking the process a step further to create the famous *interior 8* [Fig. 7] that Lacan uses to describe the object-cause of desire would obscure the identity of the points representing the subject, *fictim*, object of desire, and perceptual screens that produce and organize the anamorphic experience of the subject, so the analemma is left where it is.

This space is, for the public, *really a space between the two deaths*, the first death being the end of innocence with the 9/11 attacks, the second death being the hypothetical actual death as a result of new terrorism.

The equilateral triangles are important. Their common base connects the centers of authority, the opposed polar points of east and west, Islam and Judeo-Christianity, American hegemony and Middle-Eastern defiance. This is the line along which, presumably, Lacan's signifiers actually slide as meaning is de-stabilized by such empty expressions as *homeland security* (whose new employment of *land* is reminiscent of Nazi Germany's similar emphasis), *terrorist* (defined by a legally ambiguous and mostly secret procedure), *democracy* (imposed by an invading army?), and *pre-emptive* (aggression based on easily disprovable justifications). Perhaps the *mother*

of all sliding signifiers were the 9/11 attacks themselves, which were nothing other than *faith-based initiatives*, a treasured phrase of conservative political discourse.

The *sliding* of signifiers is not a defect in the communication process, not a problem to be remedied, but a function of the subject's disadvantageous relationship to the *objects* of authority, the *world out there* that is open for inspection but not fully accessible to reason or knowledge. The best metaphor is that of a wall or screen that *permanently* conceals some aspect of the sense world. Like the mobile chemical-biological weapons laboratories purportedly moved around by terrorist regimes, the invisible-remote is also the key, the controlling fact. In other words, what anchors significance is what can, *by definition*, never be found.

"*Never say never*," of course, particularly in the case of literature and art, which makes of this object-never-to-be-found into that particular class of objects that are both the goal and cause of desire. These are complex objects, to be sure, but not so complex that they can't proliferate and colonize even trivial art occasions. The concentration of value and meaning into a small key, ring, jewel, or other missing thing whose recovery solves the mystery, secures the kingdom, or restores health or happiness is a matter of hide and seek. In particular, it is the *motive* implied by hiding (i.e. that something has not been accidentally lost) in combination with the *action of seeking*, by a subject whose motility sets him/her apart from others *immobilized* by the suppression of the one thing they require.

"*Between the two deaths*," thus, corresponds to this interval between concealment and a recovery. And, whether the terms of concealment are mortuary myth, where the corpse is simply not able to speak and recovery is the arrival at some place to finally "*rest in peace*"; or a work of art, where the lost object can be represented vividly and the quest for it dramatizes the process of interpolation using the time-honored logic of narration; the point is the same. Meaning must be destroyed in order to make meaning *out of nothing*.

The striking aspect of this seemingly complicated philosophical point is that it's enunciated in popular culture frequently and in ways that not only don't perplex the audience but restore its most clichéd homilies. When, in *The Wizard of Oz*, Dorothy in her final speech rejects future quests, she is really

arguing for the anamorphic nature of the ordinary:

Dorothy: If I ever go looking for my heart's desire again, I won't look further than my own back yard. And if it isn't there, I never really lost it to begin with. Is that right?

Glinda: That's all it is. And now those magic slippers will take you home in two seconds.

This probably explains why the *purest* type of mystery story, the so-called *cozy mystery*, takes place in familiar surroundings. Moving around too much converts the mystery story into the action-adventure, for the simple reason that the clue must be central in the mystery story, and the clue depends on seeing something of critical value concealed within appearances that everyone else takes for granted. The clue must be available to everyone, in everyone's "own back yard," rather than, like the golden fleece of Colchis, reachable only by the most intrepid itinerate adventurer.

The simultaneous availability and opacity of the clue leads to one thing that is crucial to the mystery story's relationship to the rituals of death. The subject/hero is a hysteric. In Lacan's terms, all subjects are hysterical ("*barred*") by nature. Subjects are required to do something but not told what that something is, or how to do it. This is what makes subjects subjects. The crucial words on the instruction sheet are unreadable. The hysterical subject is the basis of the comic appeal of Roger Thornhill, the main subject and hero of *North by Northwest*. Cary Grant's cool delivery of lines such as "*I have two ex-wives, a mother, and several bartenders depending on me. And, I don't want to disappoint them all by getting myself 'slightly killed.'*" Getting "*slightly killed*" is the point of being "*between two deaths*," and an indication of the film's intensive exploitation of this theme.

The non-existent American spy, Kaplan, sets up the *idiotic symmetry* between the advertising executive's real but ordinary life and the role he is forced to adopt once he is forced to take up the identity of Kaplan. He no longer *lives* as Roger O. Thornhill but can't be reincarnated as Kaplan, because Kaplan doesn't exist. As he demonstrates in a scene where he and his mother break into Kaplan's hotel room, the suits don't fit. The *zero* of Kaplan is translated into the anamorphic nothingness of Thornhill. When Eve Kimball looks at his name on a book of matches she asks "What does the 'O' stand for?"

"Nothing," he replies. The double-edged meaning of this reply mirrors Thornhill's duty as a hysteric subject: to fill the shoes of a non-existent person. Seeming is all he can do, so *nothing* really is *as it seems!*

This takes us to the allusion to madness in the quote from *Hamlet* I am but mad north-north-west: when the wind is southerly I know a hawk from a handsaw. Shakespeare's theory of wind therapy differs from Vitruvius's account, which says that "when the south wind (Auster) blows men fall ill." The Vitruvian combination of the northwest wind (*Caurus*) and north wind (*Septentrio*) would seem to suggest a no more serious threat to health than a slight cough. Pliny seems to settle the issue by identifying *Thracius* as the north by north-west wind, and Milton constitutes the closest reference for the qualities of this wind, in *Paradise Lost*, adding physical violence to Shakespearean madness:

"Boreas and Cæcias, and Argestes loud,
And Thrascias rend the Woods, and Seas upturn;
With adverse blast up-turns them from the South
Notus and Afer; black with thunderous Clouds,
From Serralliona; thwart of these, as fierce,
Forth rush the Levant and the Ponent Windes
Eurus and Zephir with thir lateral noise,
Sirocco, and Libecchio .

John Milton, *Paradise Lost*, x. 692-706.

The skewness of this compass direction is played out in multiple ways in the film. The opening credits flash before an angled view of a steel-and-glass office building. The mullions are nearly run parallel to make a gridded mirror, reflecting the city in a demonic jewel of traffic turmoil. The compass idea, translated to a clock face, becomes 11:00, the *eleventh hour*, the hour of last resort, appropriate to actions taken at the penultimate moment. Hamlet's madness, too, stems from his situation *between the two deaths*. His father is dead but his soul is restless. The opening scene is a haunting, a visitation. Thornhill's first death (abduction) occurs when he is *possessed* by the identity of Kaplan and nearly executed. His escape and flight follow the pattern, the *sinthom* of Hitchcock heroes: wrongful accusation (first death), flight, and ultimate exoneration (second death).

The final scenes at VanDamm's modernistic house on Mt. Rushmore finalize this equation through a *clinographic* sequence that moves from Thornhill's *eruption* from the

horizon line to spy on the conversation that uncovers Eve's duplicity to Thornhill's painful climb to Eve's bedroom, his trick of alerting her by tossing down his initialed matchbook to the living room floor below, his discovery when the housekeeper sees his reflection in the television screen. This sequence of downs, diagonals, and ups is a variation on the theme of violation and discovery developed in many Hitchcock films that use vertical tracking shots, but especially in *Rear Window*, where another blond, Lisa Freemont, climbs up the fire-escape into the apartment of the suspected killer Thorwald. Mountains, Thorn-Hills, Rush-mores, Walds (*forest* in German, *wall-sounding* in English), Free(mont), and Rapid Cities fold homophonic themes of speed, horizons, and vertical conditions into the perfect model for the direct assault on the Big Other: the paternal super-ego, in Freud's terms. The hoist up ends with the couple finding peace at last as the train takes aim at the direct center of the mountain, a poke in the Cyclopien eye by another burnt stick wielded by another hero who gives his name as "*Nohbody*."

“Une Architecture Autre”?

The state of contemporary architecture can perhaps be characterized by the euphemism circulating in academic circles known as ‘*Bilbao effect*’. Hal Foster in his recent book *Design and Crimes (and Other Diatribes)*, sharply criticizing Frank Gehry’s Guggenheim Museum in Bilbao, and referring to Guy Debord’s 1964 pronouncement of the arrival of the spectacle culture, writes:

Thirty years ago Guy Debord defined spectacle as ‘capital accumulated to such a degree that it becomes an image,’ but the reverse is now true as well: spectacle is an image accumulated to such a degree that it becomes capital.

For the critics of spectacle society, contemporary culture has capitulated to this capitalization of image in the all-pervading postmodernization of late capitalism. But if in our millennial situation defined as the post-society of surveillance, critical theorists frame their analysis in optical imagery, it is because, as a cultural theorist recently put it,

our post-society is not just a function of spectacle (as Guy Debord asserts) but of hypervisibility, an epidemic of what [Jean]Baudrillard terms the ob-scene excess of display, and which [Slavo]Zizek calls ‘pornography’, that spectacle which fixes and objectifies the viewer:

More than 100,000 of such viewers found themselves *fixed* and *objectified* when they flocked to the Winter Garden pavilion of the World Financial Center adjacent to Ground Zero in New York city to view the seven architectural proposals selected out of 406 submissions which were displayed for the public in the aftermath of the catastrophic event of September 11. The seven projects, as Anthony Vidler aptly puts it, “*glittering and translucent behind their vitrines, like so many mannequins in a department store window,*” viewed in the state of hypervisibility. Architecture for a moment occupied the front page of media and became the subject of a fierce public debate. Paradoxically, hypervisibility of the Ground Zero competition and the rebuilding of the site, which was sponsored by the Lower Manhattan Development Corporation, generated an enormous publicity and public interest, while at the same time, reducing the public role of architecture to image and excessive symbolism, and expressionism; suffice to recall how

the winning design by Daniel Libeskind Studio, presented in the triumphalist and nationalistic language of the *Freedom Tower*, of 1776 feet high, promoted by New York Governor George Pataki for its narrative of memory and trauma, was wrapped by the rhetoric of so many symbolic images of memory, freedom, light and memorization embedded in its form, notwithstanding the fact that by now Libeskind's original design is disappearing, truncated by the pragmatic imperative of developers and bureaucratic agencies. In the public debate following the competition, Peter Eisenman, otherwise a consistent exponent of architecture's autonomy surprisingly declared in *Charlie Rose's* program that "architecture finally is where it should be, in the political, social process." Contrast this statement with remarks by Richard Meier, a member of New York 4 - the group which included Peter Eisenman, Charles Gwathmey and Steven Holl - who in the same program confirmed the Lower Manhattan Development Corporation imperative that what was needed was *an iconic place-making in the city*. In other word, image making as the stabilizing power "refilling the evacuated symbols of American military and economic might."

Yet, the postcritical turn in contemporary practice which, according to one critic, is also a turn to post-theoretical and post-political discourse, is the symptom of the disengagement of architecture from its social function. The Ground Zero competition and the disappointment it caused among its critics is a symptom of the state of contemporary architecture mired in the culture of spectacle.

Still, the symptom of this state can be traced to an earlier occasion when Rem Koolhaas in a reply to his critics declared:

I have never thought of our activity as 'affecting change'. I'm involved with how 'everything' changes in ways that are often radically at odds with the core values of architecture. In spite of its apparent success, I see 'Architecture' as an endangered brand, and I'm trying to reposition it. To me, it is ironic that the (I would almost use the word 'innocent') core of our activity - to reinvent a plausible relationship between the formal and the social - is so invisible behind the assumption of my cynicism, my alleged lack of criticality, our apparently never ending surrender.

To these remarks, Hal Foster, in the same work cited above commented:

On September 11 'everything' changed again, and more than ever we need designers able to reinvent the 'relationship between the formal and the social' in non-defensive ways.

It is moreover symptomatic of Koolhaas's position that he should have attempted to 'reposition' the architectural discourse not in an architectural journal but rather by guest-editing an issue of *Wired* magazine (June 2003), triumphantly titled *The Ultimate Atlas for the 21st Century*, in a magazine which was once *the hip site of computer fetishism*, and now *the oracle of post-Silicon-valley-meltdown dystopia*. In this issue Koolhaas departed from his ironic stand of early OMA in order to map the *realism* of the present global state and its dominant technology, which he has termed as *a fragment of an image, a pixilated map of an emerging world*. In a word, architecture in its *virtuality*. The same *realism* is displayed in a provocative essay he titled *junkspace*, a piece of writing in science-fiction genre, obliquely referring to the reality of modern capitalism. Fredric Jameson, in a recent reading of this essay and in the context of Koolhaas's other publications on *The Project on the City* views Koolhaas's writing in terms of "someone once said that it is easier to imagine the end of the world than to imagine the end of capitalism. We can now revise that and witness the attempt to imagine capitalism by way of imagining the end of the world." Jameson went on to say that it would be better to characterize all this in terms of History:

[a] History that we cannot imagine except as ending, and whose future seems to be nothing but a monotonous repetition of what is already here. The problem is then how to locate radical difference; how to jumpstart the sense of history so that it begins again to transmit feeble signals of time, of otherness, of change, of Utopia. The problem to be solved is that of breaking out of windless present of the postmodern back into real historical time, and a history made by human beings.

Jameson referring to Koolhaas's *Junkspace* article continues to say,

I think this writing is a way of doing that or at least of trying to. Its science-fictionality derives from the secret method of this genre: which in the absence of a future focuses on a single baleful tendency, one that it expands and expands until the tendency itself becomes apocalyptic and explodes the world in which we are trapped into innumerable shards and atoms.

Jameson then concludes that

The dystopian appearance is thus only the sharp edge inserted into seamless Mobius strip of late capitalism, the punctum or perceptual obsession that sees one thread, any thread, through to its predictable end.

Now, Rem Koolhaas's own criticism of the Ground Zero competition, or better his diatribe on this event, as the last

word in *Wired* magazine is indicative of the same *baleful tendency*, in a scathing political criticism, rare for an architect, directed at the winning entry, titled *Delirious No More* in the section simply called "9/11":

From now on, the most important city in the world is dominated by the tower from which first dangled an ape. What is the connection between zero tolerance and the cult of Ground Zero? In any case, the disaster resurrects Giuliani's depleted persona. New Yorkers surrender to empathy. The tragedy of 9/11 inspires a mood of collective tenderness that is almost exhilarating, almost a relief: Hype's spell has broken and the city can recover its own reality principle, emerge with new thinking from the unthinkable. But Politics interfere. In spite of Bloomberg's pragmatic sobriety, the transnational metropolis is enlisted in a national crusade. New York becomes a city (re)captured by Washington. Through the alchemy of 9/11, the authoritarian morphs imperceptibly into the totalitarian. A competition for rebuilding Ground Zero is held, not to restore the city's vitality or shift its center of gravity, but to create a monument at a scale that monuments have never existed (except under Stalin). On March 17, at 9:30 am, the winning architect rings the bell of the New York Stock Exchange. At 8 pm, the president issues his ultimatum to Saddam, the "displaced" author of the WTC disappearance. At midnight on March 20, the war starts. At 8 am, at a breakfast meeting in lower Manhattan, the "Master Design Architect," an immigrant, movingly recounts his first encounter with liberty. Instead of the two towers – the sublime – the city will live with five towers, wounded by a single scything movement of the architect, surrounding two black holes. New York will be marked by a massive representation of hurt that projects only the overbearing self-pity of the powerful. Instead of the confident beginning of the next chapter; it captures the stumped fundamentalism of the superpower. Call it closure.

What I have remarked so far, and it is really no more than re-marking the concerns of critics with whom I am in agreement, is only a rough inventory or stocktaking of the debate on the present state of discourse and practice. Critics complain that architects, on the occasion of the competition for Ground Zero missed the opportunity to reinvent aesthetic practice and to imbricate it with the emergent technology in order to theorize a politically engaged site of encounter with contemporary cyberculture. This is a valid criticism. The practice of design and theory is thus situated on the opposite poles: On one end stands the uncritical integration into a dominant form of digital technology and the socioeconomic forces of postmodernization, and on the other end, the withdrawal into an autonomous disciplinary practice of formal and semantic investigation. On both ends, it seems that

architecture and theory have abandoned the contestatory encounter with the political order and the practice of its critical positioning in the face of an all-pervasive culture of spectacle extended to the hypervisibility of image I alluded to.

In the light of this summary and criticism, I want to turn now to the specifics of my theme, to the title *une architecture autre*, a term which was first put forward by Reyner Banham forty years ago and only recently discussed by Anthony Vidler in a seminal essay published in *October* magazine titled, *Toward a Theory of the Architectural Program*. As it will become clear shortly, in my use of the term, I give a different meaning to it other than the one Banham meant in Vidler's discussion. Prompted by the same critical observation on contemporary practice and the missed opportunity of the Ground Zero competition to address issues of urban architecture, Vidler takes issue with the contemporary reduction of the public role of architecture, and in a subtle criticism of Rem Koolhaas, helpfully foregrounds the debate which took place in the 1960s around the Archigram projects and the writings of Reyner Banham. It seems that we have come full circle to the issue of the urban architecture which genealogically goes back to CIAM, Team X, Neo-Realism, Neo-Rationalism, Rotterdam and IBA in Berlin, and the past avant-garde exercises of Archigram, Archizoom, Superstudio, and the Situationists, as well as the semantic experiments of structuralism. I should point out here that apart from the resemblances of the entries for Ground Zero to the megastructures of the 1960s, which received a positive reaction by some critics, the generation of 1960 grappled with the technology of cybernetics and aesthetics and ultimately failed in their imbrications. This offers a prehistory of the contemporary interest in digital technology, virtual space and media, and certain important lesson regarding their historical and political implications for architecture. Vidler's historical investigation into this period brings forth the prehistory of the present by mapping a new approach to the architectural *Program* as a corrective instance for the contemporary impasse in practice. He advances the theory of *Program* as the social dimension of architecture in order to show an exit strategy from the present disinterest in public discourse and excessive indulgence in *realism* exemplified by Rem Koolhaas's catalogue of *theory as inventory* of the present. Here I want to briefly outline Vidler's point and then in a complement to his argument take a different approach in projecting an alternative meaning to the notion of *une architecture autre*.

Banham in his search of *une architecture autre*, as Vidler

informs us, turned to technological, biological, engineering, and social science research. However, he was suspicious of the contemporary fetishism of technology. In self-irony Banham wrote:

a generation ago, it was 'The Machine' that let architects down – tomorrow or the day after it will be 'the Computer', or Cybernetics or Topology.

Vidler shows that Banham, in turning to an *aesthetics tradition*, revealed his real agenda with regard to *une architecture autre*: a call for an architecture that “*technologically overcame all previous architectures to possess an expansive form.*” Banham, sympathetic to Archigram but critical of their supposed lack of theoretical depth, believed that their projects that he characterized as Zoom City, Computer City, Off-the-Peg City, Completely Expendable City, and Plug-in City, offer important aspects of technology and aesthetic qualities. Regardless that their proposals are acceptable to technicians or dismissed as Pop frivolity, Banham nevertheless believed that they offer important *formal* lessons. As Vidler concludes,

Banham has traced a movement from propositions about the contribution of technology to aesthetics in the 1950s, to, with Archigram, 'aesthetics offering to give technology its marching orders.

Banham believed that they have projected “*the most compelling images of our time,*” and Vidler reads into this Banham’s dismissive attitude of this notion of the *image* which of course “*conjures up all the specters of spectacular culture, of surface and mass ornament, that, from Kracauer through Debord to Baudrillard, have generally indicated a capitulation to the (post-modern) culture of capitalism at its worst.*” Vidler further points out that Banham escapes from the notion of the *image* in classical aesthetics by adopting Ernst Gombrich’s notion of *image* put forward in the 1950s. Banham uses the term to refer “*to something that, while not conforming to a traditional canon of judgment, was nevertheless, in his term, 'visually valuable', requiring 'that the building should be an immediately apprehensible visual entity and that the form grasped by the eye should be confirmed by experience of the building in use.*” Ultimately, as Vidler argues, for Banham it was “*the presence of topology over geometry that marked the inception of 'une architecture autre', another architecture, which displayed its qualities through the characteristics of penetration, circulation, the relations between inside and outside, and above all the surface of apperception that finally, gave the image its force and substance,*

and to quote Banham:

thus beauty and geometry were supplanted by image and topology.

Vidler, in his reflections on Banham and Archigram, and in bringing the *Theory of Program* to the forth, subtly takes sides with Banham against the alleged “*unstructured and potentially ethically neutral catalogue*” of Rem Koolhaas and his dismissal of tradition. In the *Koolworld*, Vidler points out, Koolhaas seems to deem architectural terminology inadequate for the description of this world. Further, in Vidler’s view, Koolhaas’s world, in contrast to Banham’s, is “*entirely counter to any ideal of design, technological or aesthetic.*” With some historical insight, Vidler justifiably claims that the

momentary alliance between Archigram and Banham seems to offer more than a historical corrective to contemporary experiments in virtual architecture.

Vidler’s criticism of Koolhaas is a serious one. According to him,

Banham’s insistence on the role of aesthetics – of the viewer and experience – in the promulgation of a new architecture, adds to this significance and invokes the possibility of reconceiving the notion of program in a way that occludes that fatal modernist gap between form and function and incorporates environmental concern, technology, and formal invention as integral to a single discourse.

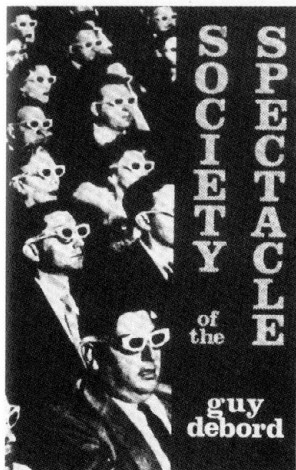
Thus Vidler ultimately concludes that

‘*Une architecture autre*’ was, in 1960, a promise of ‘*tomorrow*’; its realization today has become not only possible, but also urgent.

Towards a Post-Situationist Architecture



Among the various groups that formed from the break up of the International Surrealist movement after the second world war, perhaps none has had a more consistent underground cult following than the *Internationale Situationniste*, also known in English as 'the SI'. Founded in 1957 by representatives of several European avant-gardes, the SI was, from its inception, a revolutionary cultural organisation very much in the spirit of Dada and Surrealism. Like these earlier groups, the artists, poets, and agitators who joined the SI placed themselves at the margins of art and politics, challenging existing conventions and developing new arenas for creative expression and critical action. Throughout their fifteen years of existence, the situationists formulated an incisive critique of the injustices and class divisions underlying Europe's post-war consumer culture, which they expressed in a remarkable and extraordinarily varied body of writings, actions, and works that revived, in often starkly political tones, the avant-garde project of merging art and life.



Unlike their predecessors, however, the situationists were actually able to carry out this project at an ambitious scale. During the events of May 68, their slogans covered the walls of Paris and their tactics of cultural sabotage were a decisive stimulus to the forms of *direct communication*, the *detournement* of city streets, and the forms of *urban bricolage* adopted by the insurgents. Since then, situationist ideas have inspired radical utopian currents around the world. At the same time, however, many of their critiques of functionalist town planning, for example, have found their way into the architectural profession, generating new approaches to design that share little if any of the group's larger social goals.

My purpose today is to begin to explore the grey zone of what we might term *post-situationist practices* in recent years, highlighting the power of concepts developed largely outside (and even against) the architectural profession in an effort to distinguish the *recuperation* of the SI from more genuine extensions of its urban theories. Possibly the most eloquent summary of situationist ideas on the city is the chapter devoted to territorial planning in *The Society of the Spectacle*



(1967, here shown in one of the many pirate editions by the Chicago-based publishing house Black and Red), where Debord described what he took to be a new stage of capitalist development based on the massive invasion of private life by manufactured consumer fantasies (1). Among the characteristic spatial manifestations of this new regime, according to Debord, were the impoverishment and banalisation of the physical world in what today would be termed “junk space” (2); the breakdown of divisions between town and country, now referred to as *sprawl*; the isolation of people from each other and their *reintegration* into pre-programmed places of work or consumption like office parks, manufacturing zones, and shopping malls; the militarization of city space, as in the subsequent spread of invasive surveillance technology; and the saturation of every available surface by commercial imagery.

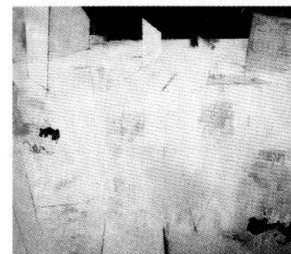
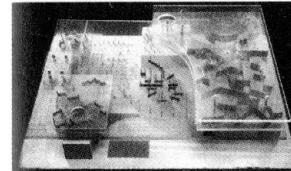
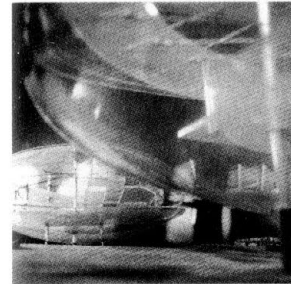
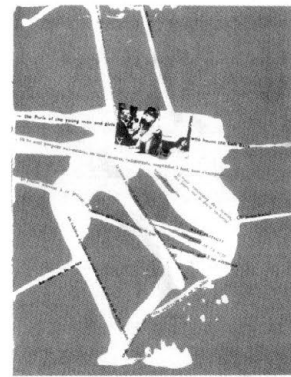
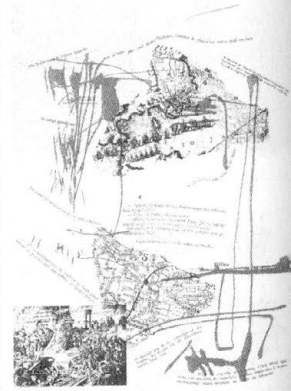
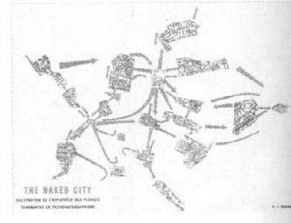
Against the concentrated assault on the space of communities inherent in these urbicidal tendencies (which have done nothing but intensify over the last 40 years), the situationists developed new concepts and counter-practices intended to promote a different use of city space. Among these, one should mention the idea of *situations* defined as *moments of life concretely and deliberately lived by the organized collectivity*; the notion of *psychogeography*, a new field of research dedicated to the study of urban space in relation to its subconscious emotional effects and influence on behaviour; the art of drifting through urban landscapes, called *dérive*, itself based on the spontaneous practices of the bohemian underworld of Paris as well as the urban wanderings of the surrealists and defined as a *technique of quick passage through changing ambiances*; the principle of *unitary urbanism*, defined as *the combined use of art and technique for the integral construction of a place in dynamic relation with experiments in behaviour*, and the technique of *detournement*, of the mis-appropriation of pre-existing forms to create a new effect. (3)

Consistent with their notion of theory as a means and not an end in itself, the situationists also engaged a wide range of media to give expression to the essentially ludic and iconoclastic spirit of their program. Among the many products of their research are Debord's psychogeographic maps of Paris, which reconfigured the city into an archipelago of islands connected by red vectors of desire – their tactical conception of city space already in some ways anticipating the urban re-appropriations of May 68; the urban poetry of Debord and

constitue un moyen de transport. Contre toute les formes répressives de jeu, qui sont un moyen à des fins idéologiques.

DEFINITIONS

- situation concrète** Moment de la vie, concrètement et délibérément construit par l'organisation collective d'une ambiance, unique et d'un jeu d'habitudes.
- situationisme** Ce qui se rapporte à la théorie ou à l'activité pratique d'une construction des situations. Celles-ci s'opposent à l'existence des situations. Manière de l'habiter situationnisme.
- situationnisme** Visibilité poétique de nous, émergeant hors par dérivation de nous-mêmes. Il n'y a pas de situationnisme, ce qui signifie une détresse d'interprétation des faits existants. La notion de situationnisme est totalement étrangère aux auto-situationnistes.
- psychogéographie** Étude des effets poétiques de milieu géographique, concrètement envisagé en tant qu'ajout déterminant sur le comportement affectif des individus.
- psychogéographique** Relatif à la psychogéographie. Ce qui manifeste l'action directe du milieu géographique sur l'individu.
- psychogéographique** Qui recherche et traite les relations psychogéographiques.
- dérive** Mode de comportement expérimental lié aux conditions de la société urbaine. Technique de passage libre à travers des ambiances variées. Se dit aussi, plus particulièrement, pour désigner la durée d'un exercice consistant de cette opération.
- ambiances urbaines** Espace de l'ambience d'ensemble des arts et techniques orientées à la construction intégrale d'un milieu ou liaison dynamique avec des mécanismes de consommation.
- detournement** S'empare par abstraction de la forme; détournement d'éléments artistiques préfabriqués, techniques de production, techniques ou poétiques des arts dans une composition originale de milieu. Dans ce sens il ne s'agit ni d'un jeu de langage ni d'un langage situationniste, mais d'un usage situationniste de ces formes. Dans un sens plus général, le détournement à l'intérieur des cadres artistiques antérieurs ou non artistiques de propagande, ou d'usage de l'ancien et de la pose d'importance de son opéra.

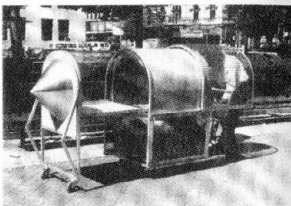
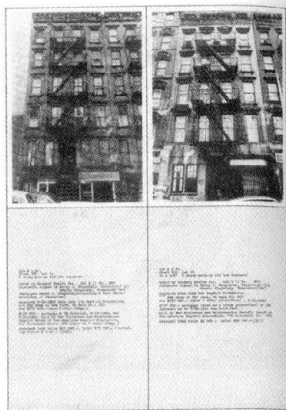


Asger Jorn, which vividly evoked the atmospheres of the *derives*, with their recurring themes of time passing, love, war, drinking, and often including direct references to the recon-figurations of Paris under De Gaulle, as in this case, where the working class district of The Contrescarpe is analogized to a battleground between natives and invading forces. Equally important, during the first few years of the group, was the environmental art of Pinot Gallizio, specifically his *Industrial Paintings*, produced collectively with *painting machines* and capable of being worn or draped on gallery walls, floors and ceilings, to form entire ambiances, as in his 1959 *Cavern of Anti-Matter* mounted with Debord in Paris. No less central were the architectural explorations of the Dutch artist Constant, who starting from studies of gypsy communities, developed a remarkable series of models for a future nomadic city called *New Babylon*, whose changing atmospheres, interactive surfaces, and systematic blurring of distinctions between public and private space vividly expressed the tone of *serious play* animating the group. Also relevant are Constant's paintings of *terrain vagues* and his reflections on the potential of empty space. The situationists also developed group proposals, like the one for the Stedelijk Museum in Amsterdam (1960), which activated the boundary between the museum and the city through radio transmitters connecting the proposed *microderive* inside the museum with groups of situationists roaming the city's passionate terrain outside, as seen in these two pages for the SI journal that describe the proposal, comparing the center of Amsterdam to the famous 17th century passionate cartography by Madeleine de Scudery. Other installations, like *Destruction of RSG-6* in Denmark (1966), brought the world of politics directly into the space of the art gallery through Debord's political slogans and JV Martin's terrifying series of *thermonuclear maps* (this one is entitled *Europe 4 hours and 30 minutes after the outbreak of WWII*), which effectively dramatized the dangers of nuclear build-up. Finally, one cannot fail to mention the whole arsenal of popular art forms used collectively to establish and hold *free zones* of resistance in May 68: recaptured comic strips, posters, graffiti (including their most famous, *under the paving stones, the beach*, and the *wild architecture* in boulevard Saint Germain – all of them exemplifying the group's activist conception of art and theory as weapons of combat to be mobilized in the service of particular goals (5).

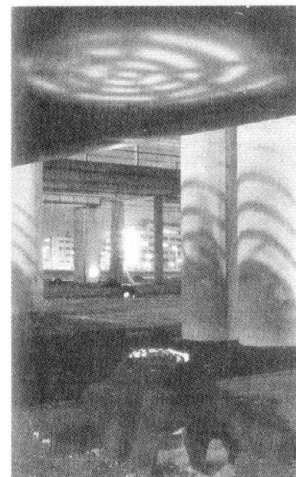
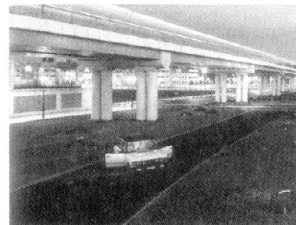
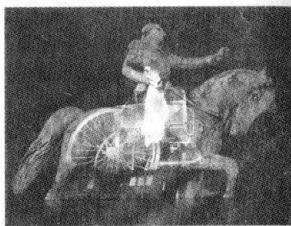
Today, of course, after four decades of neo-conservative

backlash accompanied by the ritual abuse piled on the *counter-cultural* movement as a whole, the search for continuities with the SI is neither simple nor obvious. Many of their ideas may appear naïve or amateurish in retrospect; professionalism has made great strides, languages and whole fields of research are now more separated than ever. Nevertheless, the tactics of urban intervention developed by the SI have not dissipated and continue to play a significant, if underground role, in many contemporary forms of artistic or architectural practice. Among the many examples that could be cited, the politicised work of Hans Haacke seems to offer a contemporary counterpart to the installations of the SI. His *Shapolsky real estate holdings*, for example, intended for the Guggenheim in NY (1971) but cancelled at the last moment, injected massive hyperpolitical content into the museum in the form of 142 framed panels offering a complete documentation on the investment strategies of a single Manhattan slumlord -- the theme of the city vs the museum here highlighted by the contrast between the photographs of vacant lots and decaying buildings, many of them at walking distance from the viewer, and the pristine white walls of the gallery space (6).

In a similar way, Krzysztof Wodiczko's widely publicised *Homeless Vehicle Prototype* (1988), offered as an emergency functional response to the dramatic problem of homelessness in NYC, served to dramatize the consequences of Mayor Koch's policies of urban renewal while giving visibility to a whole urban underworld of transient populations living on the margins of society. Even more in the spirit of the SI's hit-and-run tactics are Wodiczko's projections, like the one for Union Square in NY (1986), which made a similar point about the effects of so called *beautification* schemes through its capture and *detournement* of the square's monuments, which briefly turned George Washington into a homeless windshield cleaner and Abraham Lincoln, tin cup in hand, into a limping beggar. Other similar nocturnal assaults include the giant open hand pressed to the heart of the business tower in New York's financial district (1984), carried out four days before the US presidential elections, and suggesting a quite different reading of Ronald Reagan's pledge of allegiance; the *Works* piece at the Hirshhorn museum in Washington (1988), with its overt reference to Bush 1st famous speech about the *one thousand points of light*, and the *Memoiral Hall* in Dayton, Ohio (1983), whose neoclassical forms offered perfect material to expose the *dark side* of such institutions and their glorification of war. In each case, Wodiczko seems also to be



Project Wodiczko, Homeless Vehicle Prototype, 1988 (photo courtesy Krzysztof Wodiczko at Culture Lab.org)



making a commentary on the subliminal authority of images and their function, as Debord would say, to represent and reify power relations. In the artist's own words,

The attack must be unexpected and frontal. It must come with the night when the building, undisturbed by its daily functions, is asleep ... when the architecture has its nightmares (7).

This notion of an urban or architectural subconscious was also key to the psychogeographic research of the SI. We find an echo of it in the work of contemporary architect Adriaan Geuze in Holland, whose interventions in left-over spaces, far away from the spectacle of the city center, like the ground beneath the elevated train tracks – exploit the poetic possibilities of uninhabited space in a way that might recall the *terrains vagues* of Constant. In this case, a scattering of tree stumps made of cast iron, distributed over an indefinite area, with some of them appearing to take over entire piers, and with their night-time lighting projecting underneath the train line, creates an atmosphere both playful and vaguely unsettling: an uncanny image in Freud's sense that it evokes repressed childhood fears, like the fear of severed limbs, or of objects that appear to be coming alive. Even when operating within the more familiar spaces of the city, as in this project for a new public square in downtown Rotterdam, Gauze's landscapes seem cognizant of the way Constant's proposals systematically blurred spatial distinctions, providing flexible interactive surfaces capable of responding to the needs of users, in this case through zones of light and dark and through varied surface materials, like rubber, steel, wood, or epoxy, suggesting a range of possible activities, the boundaries between each surface treated as flush with the next so as to encourage the act of crossing or spilling over. The coin-operated *dinosaur* lamps, swinging slowly to create spaces of greater or lesser intensity, recall the ludic proposals of the situationists, which in a famous list of *rational improvements to the city of Paris* demanded that, since *lighting should be for public use*, all street lamps be equipped with switches (8).

If Gauze's work testifies to the penetration of situationist ideas into the world of the architectural profession, Jon Jerde's *City Walk* in LA (1993) shows how the notions of the *derive* or of psychogeography can also be recycled as marketing devices to create apparently playful spaces that are, in fact, as pre-programmed and mono-functional as any shopping mall. The *recuperation* of these ideas by the business culture is

unsurprising: suffice it to mention the myriad ways in which the radical right, especially its popular management literature, has taken over the themes and slogans of the 60s – and Gerde's case is essentially no different from the discredited media mogul Bernard Tapie's notorious misquoting of Debord. Against this stands the much greater resilience of what we might call the SI's *activist strain*, as seen in a great many groups who are mobilising today to defend people's rights to a *non-colonized* space of self expression. One example among many is the global network that calls itself *Reclaim the Streets*, self-described as a *non-hierarchical, leaderless, openly organised, public group*, which since its emergence in the early 90s has staged events in over forty countries worldwide, including raves, road blocks, *guerrilla gardening* incursions, global street parties, as well as a few exemplary actions like the pie-ing of Bill Gates. Another is *Critical Mass*. Operating in 7 continents, it describes itself as *an unorganized coincidence*, in which hundreds, sometimes thousands, of cyclists happen to *meet* at a designated location for a *ride* that rapidly takes on the form of an event, complete with costumes and street theatre. Monthly rides have taken place in hundreds of cities in North America, Europe, and Asia since the first group was formed in San Francisco in the early 1990s. Critical Mass – I quote here from one of its websites - advocates *a new kind of political space (based on) preferable alternatives, most obviously... bicycling over the car culture*. Like the situationists, it has strong roots in humor, disdain for authority, decentralization, and self-direction. As one of the earliest participants put it,

Critical Mass descends from the anti-nuke movement as much as it does from the bicycling initiatives of the past. It is as much street theater as it is a (semi)functional commute. It is inherently anti-corporate even though there are more uncritical supporters of the American Empire and its moneyed interests riding along than there are blazing subversives, which is just another of the many pleasant ironies of Critical Mass (9).

Aside from such direct action networks of transnational resistance that are attempting to challenge the global economic forces responsible for the degradation of cities across the world, mention should also be made of smaller formations that combine a global perspective with a more specific architectural focus. A good example is *Stalker*, the Roman based group of former architecture students whose name evokes the guides in Tarkovsky's film who lead visitors through the mysterious and dangerous *Zone* to freedom and

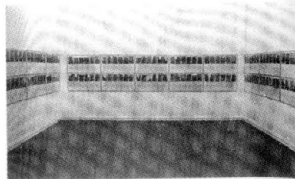


Fig. 50 Gerry, Mungkai Proulx, and CEO, gov. gov. Barbara Wells, before the public space. Giovanni Michel Proulx, architect of the ground concrete lake, gov. gov. gov.



the satisfaction of all their desires. Stalker's actions have tended to concentrate on the informal exploration of the vast negative zones of the city, as in its 1995 *Giro di Roma*, which took a group of about 20 friends in a long tour lasting several days. Its mappings of this territory are reminiscent of Debord's psychogeographies, but with an interesting reversal: the marginal zone now constitutes a vast ocean, while the islands, closed off and fortress-like, mark off the official spaces of the city (10).

Stalker's ephemeral projects, like the installation called *Transborderline* set up at the border between Italy and former Yugoslavia (2000), its spiral form evoking the barbed wire frontier between East and West, also recalls the utopian and nomadic proposals of Constant in its optimistic projection of a free zone of transit and cultural exchange. A few years later, their *Amarcario* installation, consisting of a single long roll of cloth capable of being deployed in a variety of situations, like the large warehouse of the Fabbrica Europea in Florence (2002), where it made an interactive space in which the movements of each participant affected all the others, seems not unrelated to Pinot Gallizio's ideas on industrial painting. Through all its many activities, Stalker maintains its base of operations at an abandoned slaughterhouse on the site of Campo Boario, a squatted building which they have turned into a cultural center for Kurdish immigrants, organizing events and workshops. As they put it,

Although Stalker works outside the law.. by cultivating its reputation among established art institutions and universities, it uses it to support and legitimize the illegal immigrant community squatting on state land, in opposition to the local authority's plan.

To conclude, the continuing vitality of situationist ideas among artists, architects, and architecture collectives today is but one aspect of a more pervasive tendency. More time would be needed to consider, for example the influence of the SI on a whole generation of radical architecture from the 60s and 70s, the resurfacing of situationist themes in the works of Rem Koolhaas, Bernard Tschumi, or Nigel Coates, and the impact of Debord's writings on a great many urban theorists, novelists, philosophers, and cultural critics in many countries. As Debord put it in a recent retrospective comment on the meaning of the situationist experiment:

Avant-gardes have their time, and the best thing that can happen to them, in the strict sense of the term, is to have had their time. After them, operations commence on a larger scene.

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Ecstasy



St Teresa of Avila (1515-1582) was a Carmelite nun and religious mystic. She was a reformer who established her own order, and set up seventeen new convents throughout Spain. She was regarded as a saint in her own lifetime, and was well known for her ecstatic religious experiences, of which Gian Lorenzo Bernini would no doubt have been aware when he captured her so vividly in his exquisite sculpture, *'The Ecstasy of St Teresa'*, in the Cornaro chapel of the church of Santa Maria della Vittoria in Rome. Certainly St Teresa's 'visions' had been cited when she was canonized in Rome in 1622 within thirty years of when Bernini began his sculpture.

To the contemporary world she is most famous for her vivid and incisive accounts of her ecstasies or 'raptures' that are recorded in her autobiography:

... Rapture is, as a rule, irresistible. Before you can be warned by a thought or help yourself in any way, it comes as a quick and violent shock; you see and feel this cloud or this powerful eagle rising and bearing you up on its wings.

The eagle is, of course, God. And a fundamental aspect of the rapture is the feeling of being raised aloft by God:

One sees one's body being lifted from the ground; and though the spirit draws it up after itself, and does so most gently if one does not resist, one does not lose consciousness. At least I myself was sufficiently aware to realize that I was being lifted. The majesty of One who can do this is so manifest that one's hair stands on end, and a great fear comes over one of offending so great a God.

Overwhelmed in this state of religious convulsion the rapture takes hold. It is a bitter-sweet moment of ecstasy that is both pleasurable and painful. In this her ecstasies share something of the sublime:

One seems to be on the point of death; only the agony carries with it so great a joy that I do not know of any proper comparison. It is a harsh yet sweet martyrdom. ... Yet at the same time this pain is so sweet, and the soul is so conscious of its value, that it now desires this suffering more than all the gifts that it used to receive. It believes this to be the safer state, too, because it is the way of the cross; and, in my opinion, it contains a joy of exceeding worth, because the body has no part in it but agony, whereas the soul, even while suffering, rejoices in the bliss and contentment that this suffering brings.

As the word 'ecstasy' implies this experience takes place beyond the body. 'Ekstasis' means a 'standing outside' of the body. The ecstatic rapture is an experience of the soul, an extra-corporeal sensation. During the process the eyes remain closed or half-closed, but, in any case, the individual is almost oblivious to the outside world:

Very often [the raptures] seemed to leave my body as light as if it had lost all its weight, and sometimes so light that I hardly knew whether my feet were touching the ground. But during the rapture it came on it; seated, for example, and with the hands open or closed. The subject rarely loses consciousness; I have occasionally lost it entirely, but not very often, and only for a short time. Generally the senses are disturbed; and though absolutely powerless to perform any outward action, the subject still sees and hears things, though only dimly, as if from far away. I do not say that he can see and hear when the rapture is at its height; and by 'its height' I mean those times when the faculties are lost, because closely united with God.

But what begins to emerge is a markedly erotic undertone to St Teresa's description of her raptures. In particular, when she is being stabbed with 'a long golden spear', as in the sculpture by Bernini, her language shares much of the discourse of erotic pleasure. She uses a metaphor of 'penetration' for her ecstasies which seems to echo operations in sexual intercourse. Moreover her ecstasy is clearly a corporeal (or perhaps extra-corporeal) ecstasy:

In his hands I saw a long golden spear; and at the iron tip there appeared to be a point of fire. This he plunged into my heart several times so that it penetrated to my entrails. When he pulled it out, I felt that he took them out with it, and left me utterly consumed by the great love of God. The pain was so severe that it made me utter several moans. The sweetness caused by this intense pain is so extreme that one cannot possibly wish it to cease, nor is one's soul then content with anything but God. This is not a physical, but a spiritual pain, though the body has some share in it — even a considerable share. So gentle is this wooing which takes place between God and the soul that if anyone thinks that I am lying, I pray God, in His goodness, to grant him some experience of it.

It is through her raptures, then, that St Teresa comes into union with God. In this state of ecstasy, the boundary between the self and the 'other' is broken down. The ecstasy allows for a form of mystical 'bonding' which, while religious in its essence, shares certain characteristics with a more carnal form of love. Indeed Bernini's highly expressive portrait of St Teresa with her 'blissful' expression, and the 'spent' appearance of her feet and hands, only reinforces this connection.

The erotics of Ecstasy

If we are to look for early attempts to understand the condition of ecstasy beyond a merely mystical religious interpretation, we might turn first to the influential work of the French neurologist, Jean-Martin Charcot, well known for his use of hypnosis in the treatment of hysterics, who practiced at the women's psychiatric hospital in Paris, the Salpêtrière, and under whom Freud himself studied. In general terms, Charcot's attempts to offer a scientific account for ecstasy were part of a more general project to overcome religious mysticism through the epistemological rationality of science. Freud, however, describes Charcot not as a theorist, but as a visual observer of symptoms — an 'artist' of neurology:

He was not a reflective man, not a thinker: he had the nature of an

artist — he was, as he himself said, a "visuel", a man who sees.

In effect, with Charcot the inspecting gaze of the doctor elides with the gaze of the artist, and just as the artist can only base his or her work on interpretations of nature, so the doctor 'divines' his secrets of the neurological condition through inspection of the symptoms.

Operating within this predominantly visual domain, Charcot takes numerous photographic records of the conditions of his patients. What we find then in Charcot's work is an attempt to render the invisible visible, although he sometimes succeeds in conflating religious ecstasy with hysteria as he does in the case of St Teresa. Charcot could also be accused of linking hysteria to questions of sexuality, even if he does reject the traditional etymological link between hysteria and the uterus, which reads hysteria as a 'wandering' of the uterus. Moreover, his emphasis on the visual leads Charcot to overemphasise the significance of that realm. Medicine is co-opted as a branch of aesthetics. What distinguishes good hysterics from demoniacs, for Charcot, is that the former 'look like' religious mystics in their poses. On occasions, the poses of the supposedly ecstatic subjects seem to ally themselves very closely with well known religious poses, such as the crucifixion. Nonetheless, through his charting of the pathology of hysteria Charcot establishes a terrain for examining within a scientific framework what had previously been considered the province of religious mysticism. In so doing he opens up the possibility for understanding ecstasy within the rubric of libidinal forces, as a condition of a corporeal psychopathology.

The connection between mysticism and the erotic has been explored further by a number of commentators. Richard von Kraft-Ebing, for example, in his early treatise on sexual pathology, *Psychopathia Sexualis*, (1886), claims quite explicitly 'sexual feeling is really the root of all ethics, and no doubt of aestheticism and religion'. Mysticism and eroticism would appear interchangeable for him. Moreover, both may lead to a form of masochism or cruelty:

'Religious and sexual hyperaesthesia at the zenith of development show the same volume of intensity and the same quality of excitement, and may therefore, under given circumstances, interchange. Both will in certain pathological states degenerate into cruelty.'

Hence ecstasy itself is a highly questionable condition. It is,

for von Krafft-Ebing, 'a condition in which consciousness is so preoccupied with feelings of mental pleasure, that distress is stripped of its painful quality.' Somewhat simplistically von Krafft-Ebing diagnoses St Teresa as 'sinking into an hysterical faint'. Hysteria, for him, is a question of sexual excess:

'In the hysteric the sexual sphere is abnormally excited, and very frequently [hysteria] disposes girls, and even women living in happy marriage, to become nymphomaniacs.'

We might therefore conclude that for von Krafft-Ebing, St Teresa herself was succumbing to some sexual excitation. As Cristina Mazzoni comments,

This is the pitfall most often encountered by the mystics as well as by women, Krafft-Ebing seems to imply, for just as religious fervor frequently degenerates into sensuality (witness the lives of saints and the orgies of the ancients), so the disappointed or unappeased sexual instinct often finds a substitute in religion. It is possible, then, and even likely that religious pathology springs from some sexual pathology because "religion as well as sexual love is mystical and transcendental".

Bataille and Eroticism

Georges Bataille was also intrigued by this connection between mysticism and the erotic. Bataille was, of course, a theorist who delighted in the excess, a critic who both wrote and theorised on the subject of obscenity and eroticism. Alongside his own often highly erotic fictional work, *The Story of the Eye*, he wrote a theoretical text, *Eroticism*. In *Eroticism* Bataille picks up on the way in which the religious always threatens to fold into the erotic. He compares and contrasts these two overlapping moments. Bataille is not interested in simplistic equations which collapse the two into the same category, reducing the religious to the erotic and treating rapture as little more than a form of sexual orgasm.

The contrast between divine and carnal love is a very marked one... We must avoid two reefs: we must not try to diminish the experiences of the mystics for the sake of comparison, as psychiatrists have done albeit unintentionally. Neither must we spiritualise the domain of sexuality to exalt it to the level of ethereal experiences.

Moreover, the key difference, for Bataille, is that the mystical experience leaves the individual in a state of exaltation,

whereas the sexual experience leaves that person in a state of disgust:

Mystical and erotic experience differ in that the former is totally successful. Erotic licentiousness results in depression, disgust, and the inability to continue. . . . In contrast, a promise of light awaits at the limits of the mystical outlook.

Nonetheless he admits that there are '*staggering similarities and even corresponding or interchangeable characteristics in the two systems*'. Marie Bonaparte, he notes, had compared the rapture directly with the sexual act, citing the example of a nun who had experienced such raptures, only to discover in later life when she left the convent and became married, that these '*raptures*' had been in fact a form of sexual orgasm. St. Bonaventure had also observed that mystics are not infrequently '*sullied with the flow of carnal flux*' during their ecstasies.

Eroticism was published in 1957, a few years before Bataille's own death, and it is perhaps no coincidence that a key theme in this text is that of death and its relationship to life in the context of the erotic. For it is not simply that on occasions the propagation of life may lead literally to death, as in the case of a mother dying during childbirth. Rather the two become entwined within the erotic moment. Eroticism, Bataille observes, is '*assenting to life up to the point of death*.' It is this theme that Bataille pursues through the figure of St Teresa who had herself acknowledged the sense of death that accompanied the vital experience of her raptures. For Bataille it is as though the desire to live life '*to the limits of the possible and the impossible with ever-increasing intensity*' brings with it the desire for death, but it is a desire for death that amounts — seemingly paradoxically — to a transcendence of death:

It is the desire to live while ceasing to live, or to die without ceasing to live, the desire of an extreme state that St Teresa has perhaps been the only one to depict strongly enough in words. 'I die because I cannot die.' But the death of not dying is precisely not death; it is the ultimate stage of life; if I die because I cannot die it is on condition that I live on; because of the death I feel though still alive, and still live on. St Teresa's being reeled but did not actually die of her desire actually to experience the sensation. She lost her footing, but all she did was to live more violently, so violently that she could say that she was on the threshold of dying, but such a death as tried her to the utmost though it did not make her cease to live.

The ecstatic state of the religious mystic is one in which all differences are effaced, and all distances overcome. The ecstatic subject is lost in a sea of oceanic bliss:

There is no longer any difference between one thing and another in any respect; no distances can be located; the subject is lost in the indistinct and illimitable presence of the universe and himself ceases to belong to the passing of time. He is absorbed in the everlasting instant, irrevocably as it seems, with no roots in the past or hopes in the future, and the instant itself is eternity.

Here there are clear links with Bataille's theory of sacrifice. The '*death*' of the erotic moment is akin to the death of the sacrificial moment. Eroticism leads to a dissolution of the boundaries of the self, but so too a fusion of the self with the other, which overcomes the '*self-contained*' character of our normal existence. Eroticism, then, like sacrifice, leads to a transcendence of the self, and an opening up to the fundamental continuity of existence:

Erotic activity, by dissolving the separate beings that participate in it, reveals their fundamental continuity, like the waves of a stormy sea. In sacrifice, . . . a violent death disrupts the creature's discontinuity; what remains, what the tense onlookers experience in the succeeding silence, is the continuity of all existence with which the victim is now one.

Above all, it is important to recognise that, in Bataille's terms, sacrifice — like love — leads not to discord, but to a form of harmony:

It is the common business of sacrifice to bring life and death into harmony, to give death the upsurge of life, life the momentousness and the vertigo of death opening on to the unknown. Here life is mingled with death, but simultaneously death is a sign of life, a way into the infinite.

While Bataille does not make any explicit reference to aesthetic experience in general, he draws a connection between poetry, death and eroticism, and articulates clearly the fusion that poetry itself may offer:

Poetry leads to the same place as all forms of eroticism — to the blending and fusion of separate objects. It leads us to eternity, it leads us to death, and through death to continuity. Poetry is eternity; the sun matched with the sea.

Thus, for Bataille, the erotic and the mystical come together

to some extent in the ecstatic moment, and they do so within the symbolic framework of life and death.

Lacan and the Jouissance of St. Teresa

Jacques Lacan is also fascinated by Bernini's sculpture, 'The Ecstasy of St Teresa', and uses it to illustrate the front cover of one of his publications. And like Bataille, he too observes the parallels between eroticism and religious mysticism to which the sculpture seems to allude. Certainly, for Lacan, St Teresa's experiences as conveyed by Bernini's sculpture are deeply erotic ones: 'It's like for Saint Teresa — you need but go to Rome and see the statue by Bernini to immediately understand that she's coming. There's no doubt about it.' There is, admittedly, a certain reductive and patronizing tone to Lacan's somewhat flippant comments about St Teresa. Mazzoni is surely right to criticize him for regressing to

the positivistic attitude of Charcot and of his school at the Salpêtrière, where doctors, wrapped up in their visual contemplation and compulsive photographing, did not bother to listen to the hysteric's and the mystic's words.

Lacan's key contribution, however, is to locate the whole question of ecstasy within the broader context of *jouissance*.

In this work Lacan focuses on the sense of *jouissance* that emerges from the sculpture. The term *jouissance* has been used in English literature since the Sixteenth century. It might literally be translated as 'pleasure', referring, for example, to the 'pleasure' of the text. In French *jouissance* maintains a certain erotic purchase that has been lost in English appropriations of the term — it has a more overtly sexual connotation, referring to the pleasure of the sexual act itself. If post-structuralist writers from Derrida to Cixous constantly evoke the term, it is in this extended sense of the 'erotic' pleasure to be derived from reading the text.

In Lacan the term *jouissance* exceeds the simple sense of 'pleasure'. It is at the point when we go 'beyond the pleasure principle', when the sheer overload of pleasure constitutes a form of pain, that we experience *jouissance*, which can therefore be understood as a form of 'painful pleasure'. As Dylan Evans puts it,

'The term *jouissance* thus nicely expresses the paradoxical satisfaction that the subject derives from his symptom, or, to put it another

way, the suffering that he derives from his own satisfaction.'

But the problem with *jouissance*, for Lacan, is not that we have too little of it, but rather we have too much. *Jouissance* comes to be perceived as unbearable suffering, although at an unconscious level it is experienced as a form of pleasure. This might explain why some people continue to make the same mistakes that cause them pain and grief. The point is that they enjoy the consequences of their mistakes. In *jouissance* we might therefore glimpse the presence of the sublime. For it is the moment of *jouissance* that reveals a trace of the intensity of the 'real', which — in Lacanian terms — is always inaccessible. The 'real' cannot be symbolised. It remains a foreclosed element that may be approached, but never grasped. Thus *jouissance* itself comes to stand for what is hidden. As Borch-Jacobsen observes:

'Jouissance, which is nothing — nothing that could ever be presented — is nonetheless thought of as what is "hidden", "veiled", "disguised" by the image that represents it.'

And when we encounter an object that bears witness to the 'real', like the 'terrifying' angels of Rainer Maria Rilke's second Duino Elegy, it is always a traumatic event. Hence the bitter-sweet ecstasies of St Teresa offer a perfect example of *jouissance* at work. Above all, it is important to recognise that, for Lacan, the urge to break through the pleasure principle and seek this bitter-sweet moment of *jouissance* is an urge to realise the death drive. Thus, as Dylan Evans puts it, '*Jouissance* is "the path towards death". In so far as the drives are an attempt to break through the pleasure principle in search of *jouissance*, every drive is a death drive.'

Aesthetics-Religion-Love

What begins to emerge is a sense in which the erotic shares similarities with, on the one hand, the state of religious ecstasy, as observed by Bataille, and, on the other, the *jouissance* of the text observed by Lacan and others. If we include architecture and other objects of aesthetic contemplation with the latter category of the 'text' we might begin to recognise that the mechanisms in play with aesthetic contemplation replicate — to some extent — those in both an erotic and a religious encounter. Hence we might explore the fundamental nature of aesthetic contemplation by comparison with the other two.

There are clear parallels between all three modes of articulation. Religious ceremonies, especially within the Catholic Church, often depend upon the aesthetic — the singing of the choir, the smell of incense, the visual display of religious garments, paintings, statues and architecture. Art, moreover, is for Freud a form of sublimated eroticism, while Adorno compares the aesthetic to a mode of loving, and Kristeva makes connections between all three — the religious, aesthetic and erotic.

Throughout there is a sense in which the engagement with the 'other' amounts to a forging of a relationship with the 'other'. This relationship is, of course, a symbolic relationship. It is as though the basic mechanism that underpins religious identification with the 'other' — the mythic leap of faith — can be found in all identifications with the 'other'. This might be extended to include the identification implicit in love, and also aesthetic identification.

According to psychoanalytic theory, in the case of love there is no actual link between the self and the other: 'Il n'y a pas de rapport sexuel' — 'there can be no sexual relationship' — as Lacan has observed. Love therefore becomes a 'mirage that fills out the void' of the impossibility of a relationship between the two sexes. To those involved, of course, love appears as decidedly real. But it is important to recognise that within Lacanian theory what we take for the real is not the 'real' itself, but an appearance. Everything that we perceive is filtered through the maze of the imagination. This is not to reduce love merely to some realm of fantasy. While love depends upon the existence of an image, true love, as Renata Salecl observes, always aims at the kernel of the Lacanian 'real', that raw element whose trace appears in *jouissance*.

This same principle will hold true for religious devotion where 'faith' would fill that gap between the self and the 'other' — between the worshipper and God. For 'faith' here is equally a mythic construct. There is nothing to authorise the supposed communication between the worshipper and the divine except 'belief' itself. The worshipper simply 'believes' that he or she is in communication with God. Faith, like love, takes the form of a 'mirage', and while, like love, it is not 'real', it appears as such to the worshipper.

Again, the same principle would hold true for an aesthetic engagement with anything, such as architecture, where a symbolic

attachment comes into play. Here we must speak not of physical engagements — the actual presence of an individual in an environment — but the symbolic engagement which serves to personalise that environment and give it meaning. 'Attachments', in this sense, are no more than symbolic attachments, susceptible to shifts and erasures, as the full fluid dynamics of unconscious identification comes into play. The environment, then, — the world around us — should be understood as fundamentally 'other'. We may forge emotional links with that environment — identify, that is, with it — but this identification can only be understood as a symbolic identification that shares the essential characteristics of love and devotion.

It is within this framework that concepts such as 'home' can be understood. The very fluidity and transferability of the concept of home which may shift from one place to another, reveal it as a term of mere symbolic identification, an identification, that is, which is forged over a process of time. The process of making ourselves 'at home' in a new space is akin to the process of shifting our allegiance from one lover to another. It is a question of forging a 'relationship' with that space. We must acknowledge, of course, the complexity of the operation, for attachment to place does not depend simply on aesthetic questions, just as attachment to a loved one does not depend solely on beauty. Yet parallels persist. Likewise, although most do not change their religion as they do their homes, the very process of developing a religious belief and allowing it to wane, belongs to the same category. Religious affiliation, emotional bonding and aesthetic appreciation can therefore be seen to share the same inherent structure. All these forms of identification must be based on some belief system which 'claims' a link between the self and the other at the level of the symbolic.

At the same time, a degree of caution must be introduced here. For just as there are different modalities of love, there are different modalities of aesthetic engagement and religious devotion. Here it might be useful to return to Kristeva, who famously differentiates various forms of love — notably *agape* from *eros*. Kristeva is anxious to distinguish love from theological concerns. Her argument goes back to the question of thethetic divide, and the problem — as Kristeva sees it — of 'boundary failure'. There is a potential crisis of non-differentiation, which points also to the potential dangers of mimetic absorption into the other, when the thetic divide is not maintained. Art breaches the thetic divide. It 'pulverizes'

the thetic through the negativity of its transgression, but in the end, for Kristeva, it does not 'relinquish' that divide.

It is this maintaining of the thetic break that, for Kristeva, distinguishes religious sacrifice from art:

We thus find sacrifice and art, face to face, representing the two aspects of the thetic function: the prohibition of *jouissance* by language and the introduction of *jouissance* into and through language... On the other hand, poetry, music, dance, theater — "art" — point at once to a pole opposite that of religious prohibition... Far from denying the thetic, which through the ages religion has assigned itself the privilege of celebrating — though only as a prohibition — art accepts the thetic break to the extent that it resists becoming either delirium or a fusion with nature.

The problem, then, with sacrifice is that it manifests the tendency in religion to destroy the thetic divide, and collapse the self — uncritically — into the other.

Can we therefore assert that love and theological devotion do not overlap, and that one maintains the thetic divide, and one collapses it? The answer, perhaps, is contained in Kristeva's own work. For, significantly, the modality of love that she celebrates — *agape* — is itself a religious term. *Agape* points to an open, selfless 'love' or 'communion', that underpins a form of belief that is not fixed within some rigid structure of dogma. For dogma must be seen as the negative side of religion that must be resisted at all costs.

It is here that we should turn once more to mimesis and poetic language in that, according to Kristeva, they resist the dogmatization of the sacred:

Mimesis and poetic language do more than engage in an intra-ideological debate; they question the very principle of the ideological because they unfold the unicity of the thetic (the precondition for meaning and signification) and prevent its theologization. As the place of production for a subject who transgresses the thetic by using it as a necessary boundary — but not as an absolute or as an origin — poetic language and the mimesis from which it is inseparable, are profoundly a-theological. They are not critics of theology but rather the enemy within and without, recognizing both its necessity and its pretensions. In other words, poetic language and mimesis may appear as an argument complicitous with dogma — we are familiar with religion's use of them — but they may also set in motion what dogma

represses. In so doing, they no longer act as instinctual floodgates within the enclosure of the sacred, and become instead protestors against its posturing.

In other words, while mimesis and poetic language operate from within the same space as religion — they are the enemies from both 'within' and 'without' — they do not partake of the theological, if by theology we understand a dogmatic, ideological position. Instead, they both recognise and challenge the limitations of dogma, attempting to 'release' what dogma represses. Yet it is not as though mimesis and poetic language do not align themselves with the sacred. Rather they serve to counter the 'theologization' of the sacred. If, then, we are looking for their equivalent within the realm of the sacred, we should turn to *agape*, as the expression of the sacred which resists the 'posturing' and 'pretension' of theology.

Agape is a form of devotion which preserves the thetic divide, and which is constituted by a form of abjection. It is an idealised notion of devotion that operates within an open system. *Agape* is therefore quite distinct from — and indeed antagonistic towards — religious dogma. In this sense, provided we accept religion as *agape*, the overlapping of the religious and love is perhaps less problematic than might first appear. Indeed we might even go so far as to follow Simone de Beauvoir who distinguishes between 'masculine' and 'feminine' love, ascribing the former a more theological quality. As Mazzoni comments:

It is not that divine love is a rarefied, sublimated version of sexual love; rather, sexual love has for woman the quasi-religious character of a love for (divine) transcendence; for common, earthly lover is thus granted, by the sole virtue of his masculinity, the attributes of (a) g/God.

By extension, *agape* also has strong affinities with poetic expression as embodied in the principle of *mimesis*. Both are concerned with opening up to the other. Yet both preserve the thetic divide. But this might also lead us to rethink the question of ecstasy. For if ecstasy were to be aligned to a notion of love and devotion as 'agape', it would not be a complete surrender of the self to the other, nor a complete dissolution of boundaries. Rather it would subscribe to the disruptive potential of poetic expression, which 'breaches' and reconfigures the thetic, but ultimately respects it. Ecstasy, then, would amount to a 'yielding', an 'assimilation', a close approximation between the self and the divine. It is a

conditional surrender, but never a total surrender, a blurring and reworking of boundaries, but never a complete dissolution of boundaries.