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## **Architecture Pedagogy in the Information Age**

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### Introduction

The digital revolution of the past three decades has fundamentally altered the nature of access, manipulation and transformation of information – as it were in cyberspace, through info-bahns, in the guise of virtual realities. The initial impact on architecture pedagogy was prompt, and principally circumscribed by the new technologies' capacity as a representational media. In the meantime, where the digital world met the analogue at large, the new technologies became, irresistibly, if not symbiotically, the formidable instrument of Western culture's enduring propensity toward economic and cultural globalization. The remainder of the globe was, at least initially, all too complacent with this latest venture. In the process, virtually everything and everyone involved has been, to one degree or another, changed. These changes are not formal and aesthetic per se, but essentially cultural and ideological, as well as economic and political.

Much as the analogue industrial and information technologies of modernity had a profound and lasting impact on architectural pedagogy in the first decades of 20<sup>th</sup> century, one may well presume and wonder what may be the lasting impact, ramification, and/or repercussions of the global, digital information age for architecture pedagogy at the outset of this century? Does the digitized global marketplace demand a different set of skills from the architect, and would architectural education have to adopt new strategies and educational paradigms to meet the demand? How may architecture pedagogy respond to a digitized global market place, analytically and/or critically?

Considering that academic research in architecture is measurably conditioned by the unique pedagogical demands of the discipline, these questions have a direct bearing on the future direction of academic research in architecture, and this impact will, in all likelihood, have far less to do with the digital media's formidable capacity as a representational tool and more to do with its capacity to significantly alter our experience of time and space.

In as much as Globalization's objectives entails overcoming geographic divides and boundaries, in effect it has and will continue to force diverse cultures into unprecedented proximity, and an unavoidable dialogue. The proximity is both real and virtual, given the intimate and indispensable link between contemporary globalization and digital information technologies. The virtual proximity is, arguably, the more forceful of the two. In fact, what makes contemporary globalization a far more formidable and irresistible force than prior attempts at globalization is the contemporary globalization's reliance and effective deployment of digital information technologies that, among others, transform our historically heterogeneous space and time into homogeneous entities,

virtually. The space and time that presented formidable administrative challenges to prior attempts at globalization, offer virtually no resistance to the contemporary attempt. As implements of separation and segregation of cultures, space and time dissolve into virtual tin air as diverse cultures increasingly share common experiences in real time.

One consequence of the convenient marriage between globalization and digital information technologies is that cultures, in all their diversity and differences, are no longer or in the least not readily afforded space and time as literal and conceptual implements of mutual separation and distinction. Cultures, whose diversity and difference since the 18<sup>th</sup> century had been subsumed by nation-states and as such were directly and intimately tied to distinct and carefully segregated geographic boundaries, exceeding find themselves in both literal and virtual cohabitation. This cohabitation induces a potentially tense and difficult dialogue. The difficulty of this dialogue is owing to the hegemonic nature of globalization.

Diversity to globalization is a fundamental impediment. Driven primarily by finance and industry, and a potentially costly assumption that productivity and profitability depend on standardized management, production and distribution systems, globalization perpetually demands uniformity in place of diversity across a wide spectrum of economic activities. In the long run this is a costly demand, as it requires adaptation and wholesale cultural change. The latter unavoidably entails resistance, friction, and conflict. The cost of adaptation and change figures rarely, if ever, in the immediate calculation of the profit margins that are as such and to an extent delusional.

The global imposition/adaptation of a uniform model that is invariably Western in origin follows the opposite trajectory from a form of globalization intimately linked to modernity: Tourism.<sup>1</sup> As an outgrowth of modernity's obsession with authenticity, tourism – the largest single global industry in the 20<sup>th</sup> century – has produced a view of the globe that is segmented, if not segregated, by diversity and difference.<sup>2</sup> Tourism transformed diversity into a commodity in the name of authenticity. Tourism's stock in trade has been the production of the authentic and the authentically other, at a distance, elsewhere, i.e., the tourist destination. Contemporary globalization, in turn, fundamentally threatens this system. It undermines the otherness of the other, always at a spatial and temporal distance, i.e., the otherness modernity ever so carefully fabricated through, among others, the tourist industry and the ritual of tourism.<sup>3</sup>

Opposition to globalization, in particular with regard to material culture – architecture being a prominent case in point – is rarely innocent of a modernist nostalgia for authenticity. Regionalism, critical or otherwise, always and to a degree mourns the loss of authenticity and the other's otherness.<sup>4</sup>

Whereas the tourist industry trades on a timeless, if not stagnant, view of culture, globalization exacts change.<sup>5</sup> Whether globalization will succeed in producing a homogenized world culture is at best uncertain. This is not, as noted earlier, a cost effective proposition in the long run. It

also puts globalization in direct conflict with the formidable ideology that has, among others, produced and continues to sustain tourism as a global industry. What is certain, however, is that globalization is changing all cultures concerned. Coupled as it is with digital information technologies, the proximity and dialogue that globalization has imposed on diverse cultures, is inevitably transforming all at a scale and a rate that is unprecedented.

Although globalization is, in a manner, synonymous with cultural change, this is by no means solely toward homogenization. Cross cultural importations, borrowings, and/or adaptations invariably go through the filter of translation, transformation and appropriation that imbeds them in significantly different contexts and strips them of their original associations and significations.<sup>6</sup> What remains is at best a familiar form whose familiarity is as such misleading.

With the above in mind, we may return to the questions posed at the outset of the paper and rephrase them to ask not only what the impact of globalization and digital information technologies on architectural pedagogy may be, but specifically how we may educate the next generation of architects to meet the unique demands of a plurality of cultures in a state of flux and change? The assumption here being that with the rapid transformation of traditional spatial and temporal dividing-lines between cultures, professional practices of all kinds, including architecture, are multi-cultural propositions more so than ever.<sup>7</sup>

To answer these questions, we need to go by way of another detour, i.e., a few observations on the nature of the relationship between architecture and culture.

From a certain vantage point, architecture is an impossible task. Economy, technology, climate and ecology play a restrictive rather than a determining role in the formation of buildings. They limit, but do not determine one's choices. In turn, the functions of an edifice suggest no one form and much less a direction. In deference to biological needs, function is nebulous and multi-directional. However, function assumes a trajectory and becomes highly prescriptive, when it is appropriated by culture and transformed into a ritual. Though by no means singular, a ritual is distinct and unidirectional. It has unique spatial requirements. It demands a specific setting. It is this and similar prescriptive cultural appropriations that make architecture possible.

Much as architecture cannot exit outside of its cultural context, culture is not readily divorced from its architectural context. As a spatial, formal, and material language, architecture is an indispensable medium that allows a culture to transform its assumptions, beliefs, views, and ideas about the world into a factual, lived experience.

I am using the word culture here not as an ornament of human existence, but as the essential condition of it. I use the word in its double sense. I use it in reference to a distinct set of historically transmitted definitions, prescriptions, and proscriptions about the nature and meaning of existence and what it is to be human in the most minute and most general sense of the term.<sup>8</sup>

I also use the word in reference to a distinct set of intimately related rituals and practices (architecture included) that render the definitions, prescriptions, and proscriptions persuasive, tangible and real.<sup>9</sup> The latter transformation takes place through the agency of what Clifford Geertz refers to as cultural systems.

“Sacred symbols function,” Clifford Geertz notes with reference to “religion as a cultural system:”

*...to synthesize a people's ethos - the tone, character, and quality of their life, its moral and aesthetic style and mood - and their worldview - the picture they have of the way things in sheer actuality are, their most comprehensive ideas of order. In religious belief and practices a group's ethos is rendered intellectually reasonable by being shown to represent a way of life ideally adapted to the actual state of affairs the worldview describes, while the worldview is rendered emotionally convincing by being presented as an image of an actual state of affairs peculiarly well-arranged to accommodate such a way of life. (Geertz 1973: 89-90)*

Although Geertz's description pertains to religion as a cultural system, we can readily read into his account a compelling description of the role of ecclesiastical buildings as “sacred symbols” within their broader cultural context and by extension, of architecture as another “cultural system.” We can remind ourselves of the pivotal role architecture plays in shaping a people's ethos and trace an interminable link from their ethos to their worldview. This is a link without which architecture would be hopelessly lost in having too great a choice of action and not sufficient grounds for delimitation of its choices. We can go on to read the evidence of the “confrontation and mutual confirmation” between the dominant worldview and ethos of, for instance, the Gothic, the Renaissance, or the Baroque period, respectively, in the translucent world of a Gothic Cathedral, the proportional harmonies of a Renaissance Chapel, or the unfolding, infinite universe of a Baroque Church. In each instance, we can detail how the specifics of each design objectified “moral and aesthetic preferences by depicting them as the imposed conditions of life implicit in a world with a particular structure, as mere common sense given the unalterable shape of reality,” and how the experience of each building served to support “received beliefs about the world's body by invoking deeply felt moral and aesthetic sentiments as experiential evidence for their truth” (Ibid.).

Among many other and culturally diverse examples, I have noted the above three in part because they have emerged from the same region, have responded to similar climatic conditions and similar ecologies and yet are fundamentally different. This is even in spite of the fact that they share in common the same religious faith. The variable to which they owe their essential differences is markedly different world-views and at that, very different interpretations of the faith they share in common.

Were we to engage in reading the confrontation and mutual confirmation of the world-view and ethos of the above cultures, we would have the advantage of temporal distance and a mark-

edly different worldview. Both readily allow us to assume the probing role of the “mythologist,” as Roland Barthes described it years ago (Barthes, 1972: 128). Focusing, as we may, on the “distortion,” or the mechanics of universalizing the particular, it is not likely that we will experience the culture under study assume the guise of inevitability through the agency of its architecture. We will not experience the “confrontation and mutual confirmation” of the worldview and ethos that ecclesiastical edifices were erected to affect. Such a confirmation, when and if it occurs, largely goes unnoted. An edifice plays its cultural role effectively, when we do not see in it the passage of culture into objectivity. It succeeds when we do not take note of the edifice as an ideological construct, or the explicit embodiment of a metaphysic. It succeeds when we take its peculiarities either for granted, or else attribute them to pragmatic concerns, and proceed as though the latter were immune to ideological conditioning. This is to say, that those aspects of an edifice which appear to be the most objective, i.e., impervious to ideological and metaphysical conditioning, are often the parts more thoroughly conditioned by such considerations, and at that the most successful from culture’s perspective.

Although it is not with great difficulty or much resistance that we may trace the “confrontation and mutual confirmation” of a culture’s worldview and ethos in the design and experience of its ecclesiastical architecture, past or present, the same does not hold for secular buildings. The latter are far more resistive to such explorations, particularly the closer they are to us in cultural space and time. The more immediately familiar the building type, the greater is the likelihood of its appearing as no more than a pragmatic response to very real, practical needs and requirements. The library as a secular building type does not readily appear to be much more than a response to the need for storage and dissemination of books, the school to the education of the novice, or the museum to the preservation and public presentation of art, etc. It is not evident how the design and the experience of these buildings could lend themselves to a “confrontation and mutual confirmation” of a culture’s worldview and ethos or to what specific cultural variables they tactfully give the guise of the objectively inevitable.

If our secular institutional buildings do not appear as patent ideological constructs, this is not, of course, for want of participation in the construction and objectification of culture. Michel Foucault, in his study of prisons, schools, and hospitals, outlined the modalities of this participation long ago (Foucault 1973, 1979, and 1986). If, however, the link between the formal and spatial properties of secular institutional buildings and a particular view of the world, or a pervasive metaphysics is rarely, if ever, explicit, this may well be because these buildings manage all too well in formulating “a basic congruence between a particular style of life and a specific (if, most often, implicit) metaphysic, and in so doing sustain each with the borrowed authority of the other” (Geertz, 1973: 90). Their opacity silently betrays their success.<sup>10</sup>

Assuming that every building type, secular or ecclesiastical, is a purposed cultural construct, from its inception and through every stage of its permutation, and that each type serves, among other cultural mechanisms, to turn our assumptions about the world into an objective experience

of it, we may begin to see the challenges of globalization in a light that has direct bearing on architectural pedagogy.

In spatial and temporal seclusion, a culture may readily maintain a prolonged and effective synthesis between its assumptions about the world and its experience of the world through the agency of, among others, its architecture. In the face of globalization maintaining this synthesis is a formidable and perpetual challenge. A direct effect of globalization is an inevitable and challenging discrepancy between life as various cultures have traditionally defined and imagined it to be and life as various cultures experience it to be. This is a direct consequence of the proximity and the inevitable dialogue that I alluded to at the outset of this paper as the immediate egacies of globalization and its reliance on information technologies.

Another major catalyst for change is the cross and/or inter-cultural nature of architectural practice in a digitized global economy. Wholesale importation of architectural and urban-forms produced in very different cultural contexts, coupled with rapid and phenomenal transformation in such familiar examples as Singapore, Shanghais and Dubai, and to a lesser degree in numerous other locals are fundamentally changing the world as the local cultures experience them.

However, it is not only the local experience that is changing, but also that experience now encompasses and/or overlaps a far wider geography and more life-styles than it ever has. In the age of globalization and information technologies, one's experience of the world extends far beyond one's immediate environment in real time.

Although, changes in material culture are readily perceived, the catalyst behind these changes may well be a less explicit change in world-view. The relationship between the world-view and ethos of a culture is, it is important to keep in mind, a symbiotic relationship. The two are mutually interdependent. In as much as the cultural drive is toward synthesis between worldview and ethos, changes in one precipitates adjustments in the other by way of a new synthesis.<sup>11</sup> This is precisely why culture is never stagnant and cultural identities are never fixed, even though the pace of change may vary considerably from time to time. This is to say that in the face of change any call for return to a past indigenous or local architecture as an emblem of a culture's identity may readily lead to an architecture that is as out of touch with the prevailing world-view of the culture as any imported architecture.

What is certain in the face of globalization is cultural change. What is essential in the face of change is constant analytical examination and thorough reevaluation of change with an eye toward creative solutions that directly and critically address the change. Falling back on ready-made formulas, indigenous or imported, without close scrutiny is at best unproductive.<sup>12</sup>

### **The Pedagogical Consequences**

If much of what architecture is culturally and at that tacitly asked or required to do is to affect a

synthesis between a culture's world view and ethos, what is required more so than ever from architecture pedagogy in the global digital information age is instilling a heightened understanding of the complex dialogue between architecture and culture and along with that a spirit of exploration, experimentation, critical engagement, creative thought and innovation.

The broader implication of digital information age for not only architecture education, but higher education in general is a necessary shift away from the traditional emphasis on the acquisition of bodies of knowledge to a greater emphasis on the development of analytical, critical, and creative abilities that are essential to engaging and effectively addressing diverse bodies of knowledge.

Given the speed and changing modalities of global communication and cross-cultural exchange, bodies of knowledge, in their cultural specificity, face obsolescence with increased pace. In addition, the sphere of professional practice far exceeds the bounds of any one culture. In the global market place what is essential is not the extent of one's knowledge that is as such culture specific, rather it is the ability to engage, analyse, organize and manipulate diverse bodies of knowledge. What is essential is creative problem solving skills rather than ready-made answers. For these skills analytical and critical thinking are essential prerequisites. These are the skills higher education has to emphasize if it is to respond effectively to globalization.

Specifically with regard to architecture education, the above entails and requires a shift in emphasis in the familiar areas of study within the discipline of architecture, i.e., history, technology, representational, cultural, professional, and design studies, etc. It entails treating these areas not as bodies of information per se, but also and primarily as disciplines with distinct methodologies for collecting, analysing and organizing information. History, for instance, should primarily be understood and taught as a unique mode of inquiry with particular methodologies for analysing, organizing, categorizing and delivering information about the built environment. Understanding and learning to apply these methodologies analytically and critically should be the skills the students acquire and take away from each class rather than the information alone. It is these skills that will enable the students to become effective practitioners in a multi-cultural environment, rather than their specific knowledge of a particular period in a particular culture. This is not to say that the latter is not important, rather that it should be seen as a means to an end and not an end in itself.

Although each area of study within the architecture curriculum requires a detailed study along the lines outlined above, for the limited scope of this paper, I'll focus on the design studio pedagogy. This is in recognition of the fact that the design studio traditionally has been the primary focus and vehicle of architectural education and the place where analytical, formal, and technical skills assume an interactive role vis à vis each other in the production of built-forms. My intent is to outline a design pedagogy that treats culture not as a casual by word in the design process, but the primary focus of it. The primary objective of this studio pedagogy is to promote a heightened



understanding of the complex dialogue between architecture and culture, and along with that a spirit of exploration, experimentation, critical engagement, creative thought and innovation.

### **The Design Studies Sequence**

I propose to divide the sequence of studios at the undergraduate level (a 6 to 8 semester sequence of studios) into three broad categories: elemental studios, analytical studios, and critical studios (2 to 3 semesters each).

#### ***Elemental Studios***

Aside from focusing on the development of a common formal vocabulary and the skills needed to communicate mechanically and digitally, the pedagogical goals of these studios may be summarized as learning:

1. The language of architecture, its formal elements and their expressive potential
2. Learning how to speak this language wiffully and effectively.

To this end, one may proceed from the exploration of the expressive potential of the more abstract elements of architecture, e.g., solids and voids, planes and lines, to their more concrete expressions, e.g., columns, walls, stairs, windows, corners, etc., to their assemblages into paths and places, rooms and passages. In turn, one may also proceed from detail, to building, to site, to city over the extended time frame of the curriculum.

At the outset, it is important to analyse and understand the dual nature of each architectural element as both a function and an expression, i.e., in terms of what each does and what each says or is capable of expressing. Subsequently, it is important to distinguish and explore how architecture communicates both statically and dynamically, in space and in time, i.e., passive and active reception. One may start with passive communication (in place, looking at) and elements that readily lend themselves to this form of communication, i.e., elements that can make a statement without requiring time and movement (columns, walls, windows) and then introduce elements that reveal their message with time and movement as requisite components of the expression, e.g., a staircase, a room, etc. In this latter context organizational principles such as axis, layers, etc., can be introduced and explored. In this same vain, it is important to distinguish between experiencing architecture, which is accumulative, and viewing it, which is totalizing as a mode of reception.

While exploring the expressive potential of architectural elements, it is important for the students to realize that, on the one hand, what an element says and what it is are two separate issues, e.g., being solid is not the equivalent of expressing solidity and that the former is not an acceptable substitute for the latter. On the other hand it is also important for them to realize that the expressive potential of each element is conditioned by what it does, e.g., support, define, lead, connect, etc. (later the question of program will have to be explored in the same vain).

As a matter of strategy, addressing the above issues, one may formulate assignments that require students to contradict in expression the overt function of the elements they are to analyze and design, e.g., design a column that appears to defy weight, design a stair that resists its destination, design a transparent opaque wall, design an infinite room, etc. On the one hand, this type of exercise forces to surface assumptions and presuppositions about the element, and on the other hand, it forces students to distinguish between what the element does and what it can say (they cannot depend on the element to make the statement for them, insofar as the expression is meant to contradict the function).

In learning how to express ideas through form, it is important to begin with architectural or formal concepts, e.g., finite, infinite; static, dynamic; transparent, opaque; etc., and having mastered them, move on to explore how non-architectural ideas can be translated and transformed into an architectural concept and communicated formally. Throughout this process it is important for the students to develop a clear understanding of reading (as distinguished from the meta-physical term meaning) being context dependent (present or assumed). This latter is, of course, a major theme that should lead to the realization that architectural expression is a question of relational composition at every scale, that no element, in itself, communicates anything. Also, architectural expressions are fundamentally experiential and evanescent and not concrete or verbal.

In the end, Students should have a clear understanding that to design means forming an idea in relation to the specifics of the problem at hand and then struggle to realize and express that idea in architectonic form through deliberate and successive assemblage or composition of parts. This implies the realization that function (as distinct from program) has no form, e.g., there are endless possibilities for transferring a given load from point A to B, the form of which is determined by one's design agenda and expressive intent.

On another general note, students should come away with a clear understanding of the crucial interplay between analysis and design as two complementary processes. They should understand analysis as a process of moving from realization to abstraction (e.g., from form to principle, to intent) and design as a process of going from abstraction to realization (e.g., from intent to form). Formally, students should be able to conceive and construe a wilful and detailed architectural composition that incorporates structure, light, and material as expressive elements of an experiential composition.

### ***Analytical Studios***

Assuming students come to these studios with an understanding of the formal elements of architecture and their expressive potential, as well as the ability to speak this language wilfully and effectively, the pedagogical goals of the analytical studios may be defined as developing a thorough understanding of architecture as the spatial dimension of culture, and buildings as ideological constructs. This entails learning how to design in deference to specific ideologies or

world-views. The latter, of course, requires the ability to analyse and decipher the complex relationship between architectural form, function, and ideology.

Focusing on small-scale buildings with varying degrees of contextual complexity, in this segment of the curriculum students should learn how culture appropriates architecture through program and aesthetics. They should develop an understanding of program as a cultural interpretation of function (e.g., sleeping is natural or instinctive, where and under what conditions we sleep is cultural) and aesthetics as a mode of cultural appropriation of form, in keeping with specific cultural agendas, presuppositions, or world-views. They should understand that “design ideas” are not merely random opinions, but analytical constructs reflecting specific cultural agendas. They embody and reflect cultural values, beliefs and ideals. “Partis” are cultural blueprints.

To develop an appreciation for architecture as the spatial dimension of culture (as distinct from its motivated perception as a cultural artefact), it is important to assign design problems that require the students to become aware and eventually learn to operate outside the confines of their own cultural or sub-cultural presuppositions and in the process develop an understanding and an appreciation for their own presuppositions, as such. It is important to ask students to design for the peculiarities of world-views that are different (as a matter of degree) from their own.

By way of furthering the understanding of the operational link between analysis and design, as well as exploring the link between form(ation) and culture, students may be asked to begin with a text (in any of its numerous guises) that articulates a particular point of view, go through the exercise of deciphering that point of view, translating and transforming it into a series of formal ideas and experiential strategies, and proceed to realization. Each exercise should require analytical rigor and the expansion and adaptation of one’s formal vocabulary to the exigencies of the problem at hand. The key is to understand the way world-views are translated into rituals (courses of action and behaviour) and how rituals demand specific settings and formal experiences.

Examples that readily come to mind are domestic or public settings that embody a particular point of view or a particular experience such as exile which forces questions of place and placement, of grounding and occupation, etc., both mental and formal.

Formally, the focus of analytical studios should be on developing greater appreciation for compositional hierarchies leading to detail, i.e., understanding the role of primary, secondary and tertiary elements of the composition and clarification of intent in each subsequent layer of the hierarchy, i.e., how what is intended in one layer is clarified by the secondary layer of articulation, and so on down the line. The focus should also be on developing greater appreciation for experiential progression and the significance of relationships. Culture, it is important for the students to realize, primarily communicates through architecture experientially and not merely statically (it

is not the icons of the church so much as the congregational or processional experience of its space and form that convey its message, to say nothing here of its mediated relationship to the outside as the space of the profane or else the spacing of the outside as profane). Sacred is not an idea that is communicated as such, but an experience that is imparted.

Students should complete this sequence of studios with a clear understanding of how design ideas are formed through the analysis of the program as a cultural recipe for action and perception and how to transform those ideas into formal strategies and specific architectural experiences.

### ***Critical Studios***

These studios should follow in much the same vein as the analytical studios, focusing on small-scale institutional buildings in various contexts. These studios will differ primarily in assuming a critical stance as opposed to the affirmative stand of the analytical studios. The assignments should require students to engage programmatic issues or rather cultural presuppositions critically and explore the ways in which architecture can play a critical as well as an affirmative role within the broader cultural context.

These studios should focus on institutional building types, e.g., libraries, museum, theatres, etc. and the cultural institutions they serve in order to explore the link between form, function, and ideology. The intent would be to probe and demonstrate that edifices, intended or not, are ideological constructs, that they express ideas (theses) and as such reaffirm and reinforce or else critically engage the values, beliefs, ideas and the ideals of the culture they serve. How theses are formed and given architectonic form and what specific role buildings do or can play within the wider cultural context are some of the issues that would be explored in these studios.

Exploring the ways in which culture is promoted and sustained by a host of institutions such as libraries, museums, cinemas, etc., these studios should probe the history of the chosen institutional building type, identifying its formal continuities and discontinuities in time. The stylistic discontinuities should be accounted for in relation to the ever-shifting cultural context. The continuities in functional distribution and spatial organization should be analysed in turn as the attributes of specific institutional demands and requirements whose purpose is the promotion and sustenance of a set of cultural presuppositions.

A critical re-evaluation of these presuppositions should in turn form the parameters of a new context for design. A context, within which the link between the formal/architectural properties of the building type and the institutional/cultural presuppositions in question could neither be acknowledged nor ignored, neither reinforced nor discarded. A context within which there could be no intuitive and/or positive re-formulation of the building type in affirmation of the link, but only a critical de-formulation of the type in recognition of the link.

The pedagogical intent of these design exercises is twofold. The goal is to foster and further develop the type of analytical skills essential to deciphering the complex relationship between architecture and the culture industry it perpetually serves, i.e., the skills essential to the formation and evaluation of design ideas and programs. It is also the goal of these exercises to promote a conscious reevaluation of all the subconscious assumptions regarding spatial organization, the relationship of parts to whole, the inside to the outside, the particulars of volume and mass, solid and void, path and place, structure and material, ornamentation, proportion, scale, and others. This is with the intention of designing a building that in the end is all too familiar and yet all too alien, one that is neither a copy nor strictly an original. A building that speaks silently of the designer's ability to wilfully manipulate the language of architecture as opposed to faithfully reproduce its various speech acts.

### ***Graduate Program***

The studio sequence in a 3.5-year M.Arch. program may be closely modelled on the undergraduate studio sequence, leading to a comprehensive final studio.

The studio sequence in a 4+2 option would build on the undergraduate studio sequence and culminate in a year-long thesis project that would include a comprehensive thesis proposal. Thesis may be an option for advanced students in the 3.5-year program.

### ***Architecture Thesis***

A thesis is, by definition, a proposition based on investigation and observation. It is a theorem or a hypothesis regarding the nature of the phenomenon under investigation. However, as constructive as the above definition has proven to be in many fields of study, it cannot be readily used to structure investigation in the field of architecture. The definition requires modification or in the least greater specification.

The required modification is in recognition of the fact that whatever is subject to investigation in the field of architecture is, by virtue of being a cultural artefact, always an elaborate construct already, i.e., the formal expression/embodiment of a theory. The subject of investigation in this particular case is itself a theorem or a hypothesis.

Intended or not, architecture is always a theoretical construct, a form of speech, or a cultural "myth" in the making. Every edifice inevitably speaks of a thesis regarding itself specifically (including the cultural conditions of its conception and production) and architecture broadly (including the cultural conditions of architecture's conception and definition). This is to say that, adhering to the general definition of thesis, an architectural thesis would have to be a theorem about a theorem, or a hypothesis regarding a hypothesis.

This seemingly problematic definition does not have to imply that an architectural thesis is necessarily an exercise in tautology. It could imply instead – and this is the required modification – that

an architectural thesis differs from a generic thesis insofar as it is not so much a hypothesis regarding the nature of the phenomenon under investigation, as it is a posture assumed or a stance taken on the theorem that is the phenomenon under investigation. It is different insofar as it seeks to understand not so much a thing, as a theorem, with respect to which it must then position itself: affirmatively or otherwise. An architectural thesis is different insofar as it must first analyse in order to understand, and understand in order to construct again: in affirmation or not.

This brings us to another difference, namely, an architectural thesis is in final count not a single, but a double construct: an intellectual construct and a formal construct (the two are, of course, intertwined in that every intellectual construct assumes prior formal constructs and every formal construct assumes a prior intellectual construct). An Architectural thesis must be written twice, i.e., written and translated (the full force of both terms assumed).

With these sketchy reflections in mind, how, we may ask, does one begin an architectural thesis, knowing that in the end one must assume a specific posture with respect to the subject of investigation?

One may choose one of two intersecting paths. One may begin with a set of assumption or preconceptions, the investigation into which requires the identification of an appropriate building type as the vehicle of investigation, and in the end, of expression.

Alternatively, one may begin with the building-type that is the subject and the projected end product of the investigation. In either case, the question to ask at the outset is not what patent 'theory' should the proposed building speak of, but what arcane theory does its type historically hide under the rubrics of "function" or "practical" requirements? What myth, in other words, does the type refuse to acknowledge as theory in the name of practicality?

To find an answer one must reconstruct the genealogy of the building type under investigation – the genealogy of forms inseparable from the genealogy of the institution served. One must decipher the formal/architectural framing process by which the given institution turns its theory/ideology into myths and passes them on as functional and practical givens. One must analyse and critically evaluate the historic role the type plays in establishing and effecting a given institutional/social order as the natural, and practical order of things.

The aim of such an investigation is neither to simply accept and promote a given theorem/myth nor to necessarily assume the luxury of rejecting it in favour of a different theorem/myth. Though one may choose to follow either route, it is essential to first understand what it is that one is opting to defend or supplant. From a pedagogical standpoint, the defence in either case cannot be or rather should not be blind, i.e., conducted expeditiously and unknowingly under the guise of functionality and/or practicality.

Before any question of choice, it is essential to decipher and understand the mechanics of the particular and complex dialogue between form, function and ideology in the subject of study. It is only with this understanding that one may knowingly opt and then successfully pursue either of the two routes that lead, albeit differently, to a constructive or affirmative proclamation. It is also with this understanding and only with this understanding that one may also choose an alternate route: not the affirmative (pro or con), but the analytic.

One may choose not to promote a given institutional myth, i.e., cease to frame and present the myth as a natural given, or what is not fundamentally different, supplant the myth with another presented in the same guise. One may choose not to affirm but question, not to engage but to disarm. One may choose not to pose but to expose. The choice, nonetheless, it is important to note, is only afforded the investigator.

Neither choice, it is also important to note, enjoys a privileged position. An affirmative position is not a repetition given the inevitable contextual variations. A counter position does not fundamentally differ from the position it seeks to supplant, in that it must rely on the same critical strategies as its other to exact the needed authority to supplant it. The analytic position differs from the other two only in that it seeks to expose what the other two must veil as the condition of an authoritative assertion. This position, however, can no more distance itself from the other two, as the other two can out distance each other.

## Conclusion

Returning to the questions posed at the outset of the paper, we may note by way of conclusion that the ramifications for and the specific demand on architecture pedagogy in the age of globalization are the effective education of a new generation of architects who, practicing within a global economy and faced with multiplicity and diversity of cultures, will not blindly facilitate the hegemony of their own (sub)culture, or what is not absolutely different reduce cultural and ideological differences to facile and stereotypical imagery in the name of regional identity. If we are to understand and respect cultural differences and cultural change in the face of globalization, it is essential to understand culture, not as form or region per se, but as a distinct set of rituals and experiences intimately linked to distinct settings that together perpetually transform a culture's beliefs about the world into a factual experience of them, i.e., a world shaped and fabricated as it is by architecture as a cultural system.

## Notes

- 1 I am using the word modern in its broader cultural and ideological sense rather than the specific architectural sense.
- 2 To date the most comprehensive study of tourism in relation to modernity remains Dean MacCannell's *The Tourist: A New Theory of the Leisure Class*, 1976.

- 3 It is important to note that world cultures have willingly and to an extent enthusiastically contributed to this global industry. That is not often the case with contemporary globalization.
- 4 See for instance: *Tropical architecture: critical regionalism in the age of globalization*, edited by Alexander Tzonis, Liane Lefaivre and Bruno Stagno. New York: Wiley-Academic 2001. An important component of the conceived loss is that adaptation and reproduction of familiar western forms and cultural patterns, inevitably devalues the authenticity of the original in Walter Benjamin's sense of the word (Benjamin, 1978). In the age of globalization the other is also and uncomfortably the same.
- 5 Whereas the tourist industry marginalizes similarity among cultures as a sign of inauthenticity, globalization marginalizes the opposite: difference and diversity.
- 6 For instance see: *Localization versus globalization*, Abel, Chris, *Architectural review*, vol. 194, no. 1171, pp. 4-7, Sept 1994.
- 7 Specifically regarding architectural practice in the global economy, see Knox, Paul L. and Peter J. Taylor, *Toward a Geography of the Globalization of Architecture Office Networks*, *Journal of Architectural Education*, 2005, pp. 23-32.
- 8 These are always relative to a given time and a given place, though always presumed bound neither to time nor place.
- 9 In a sense, I use the word in reference not so much to what we may commonly ascribe to culture, but what we tend to take for granted about ourselves as natural and normal.
- 10 I have addressed this subject in different contexts. I have addressed this subject in different contexts. For a detailed discussion of museums please see *The Spatial Dialectics of Authenticity*, *SubStance*, vol. 33, no. 2, pp. 61-89. For a detailed discussion of libraries please see *On The Logic Of Encampment: Writing and the Library*, *Issues in Architecture Art and Design*, vol. 4, no. 2, pp. 118-152.
- 11 This is not to imply that the process is without at times considerable struggle, friction and outright conflict. Revolution is an extreme case of this process.
- 12 For instance see: Anderson, Richard and Jawaher Al-Bader, *Recent Kuwaiti architecture: regionalism vs. globalization*, 2006. The recent architecture of Kuwait falls back, despite good intentions, on reference to facile imagery that is not innocent of a tourist orientalist longing. Imported stereotypical "Islamic" architectural imageries are not de facto relevant to the unique circumstances of an "Islamic" culture merely by force of label. The expedient coupling of stereo-typified "Islamic" culture and architectural imagery is more likely to widen the gap between the world-view and ethos of the culture in question than to close it.

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