

Architectural Education in the Era of Globalization

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INTRODUCTION

This conference's call for papers asserts that "in this post-colonial, post-Cold War era, the shifting political and cultural composition of the world is changing traditional ideas about architectural education and about the history, context, and production of architecture and cities." Furthermore it says that "the unifying systems of imperialism and colonialism are crumbling down and are being replaced by other overarching forces including global economic markets and an international culture of consumption." This critical emphasis of this conference creates both a unique opportunity and challenge. On the one hand, ACSA international conferences, especially those organized in non-European countries, have become one of the largest forums for exchange of ideas among architectural educators from all over the world, so hopefully various regions of the world will be represented well in Hong Kong. On the other hand, one can see these kinds of meetings as signaling the emergence of, what I would like to call, "the institutional character of the global market of architectural education."

This institutional structure comes, however, from the West again. Thus, to avoid these neo-colonial tendencies, a new kind of discourse in architecture is needed, one that would help to rethink the objectives and practices of architectural education in a truly cross-cultural way. After all, the global market of architectural education already functions and can be observed in the growing number of students and educators going to different countries to teach or learn. Architectural publications, especially the professional glossy magazines, and the promotional materials that the new information technology supports, become omnipresent and propel the growth of the global market of architectural services. Frequently, architectural research, publishing, and even the topics of conferences follow the economy and, rather than dealing with the real issues of global consequence, they reflect what is currently fashionable and supported financially. It may seem puzzling that, while in other disciplines postcolonial discourses admit variety of previously ignored voices of other cultures or their hybrid mixes

and, in this way, redefine these disciplines, the field of architecture seems resistant to such changes.

The "Architectural Education in the Era of Globalization" plenary discussion panel is meant to provide a new format for the exchange of ideas concerning architectural education. The ACSA has invited A. G. Krishna Menon from India, and Zhang Qinnan from China, to participate. The twofold objective of the panel was stated as: (1) to identify how the challenge, which the global phenomena confront architectural education with, is seen from various perspectives and, (2) to propose essential changes that would support better models of architectural education for the global future. In order to introduce differences in perspectives, the panelists were encouraged to include a critical outline of what the conference's audience should know about their country's system of architectural education and how these systems related to the colonial and postcolonial forces. This kind of critical reflection was meant to set a stage for arguments concerning the most important challenges that architectural educators face today and the strategy, local or global, proposed to deal with these challenges.

SPECIFICITY IS THE LIMIT: TEACHING ARCHITECTURE IN TIMES OF GLOBALIZATION

MARIO COREA AIELLO, SPAIN

At this very important historical moment - the beginning of the 21st century - reflecting on the relationships between architectural education and globalization really means rethinking the teaching of our profession, both in terms of the methods as well as the contents.

Teaching architecture at the beginning of this new century with its amazing and rapid technological advances represents both a challenge as well as an opportunity to transform both the contents as well as the methods of learning in architectural schools as we know them today.

The 20th century consolidated the scientific and technical transformations that came on the heels of the Industrial Revolution. This in turn produced the birth of the Modern Movement that replaced the conservatism and mediocrity

that had given rise to the neoclassicism of the late 19th century. American architecture was profoundly transformed by the work of Louis Sullivan, the School of Chicago, and Frank Lloyd Wright, a process which became even more pronounced with the arrival of numerous exiled European professionals.

In education, the logical consequence was the abandonment of the classical BeauxArts curriculum and the adoption of programs based on design studios. The orientation becomes more focused on professional and technical issues, accompanied by a heightened interest in real problems that derived from daily life.

During the 70s and 80s, there was a regression in this line of innovation and progress in architecture. The development of postmodern historicism, along with the so-called New Urbanism and Deconstructivism can be compared to the neoclassicism that characterized the discipline at the end of the 19th century. The preoccupation with a search for formal styles led to an indifference to the real problems confronting architects and increasingly the name of the authors, rather than the ideas behind the works, became the primordial point of interest. In this sense our profession began to resemble the fashion world with its emphasis on 'brand names'. However, even while architecture entered into this regression, a new technical revolution was brewing. With the computer at its epicenter, this revolution has provoked extensive advances in numerous fields. The repercussions in medical and scientific research have been enormous, offering possibilities ranging from transplants to computer-aided microsurgery.

This has resulted in a dramatic shift in the needs and expectations of society, to which contemporary architecture must strive to offer new responses. Increasingly the concept of 'home' as a strictly private domain is becoming redefined as a work center and along with this, a profound reorganization of the work force is taking place. Moreover, the need to construct buildings solely for the purpose of offices is becoming obsolete. In addition to needing less space, the offices of a large corporation no longer even need to be grouped together in the same building.

These radical changes in cultural and social terms has brought about a renewed focus on the city, now understood as a metropolitan area. Architecture and place, architecture and city: these are the fundamental interrelations that are found at the root of every project. However, now the concepts of place and city are not merely physical terms, they are understood more profoundly, in cultural terms that express the determined confluence of social, economical, scientific, and technological factors that call for an architecture specific to that place. An architecture that is sustainable, in technological, social and geographical terms.

For architecture, it is precisely in this concept of specificity where globalization finds its limits.

The Meaning of Architectural Specificity

In thinking about architecture that is specific to the place,

two famous sentences of Louis Khan come to mind: "Architecture does not exist - architectures exist." And that the architect should discover "what the building wants to be". The concept of specificity is implicit in these ideas. I think that the architecture exists in the place before the architecture is constructed and if we know how to read the place in a profound manner, we can find a suitable project for it. What does it mean to profoundly read a place? It means investigating the bioclimatic, geographic and topographical conditions - as well as the architectural and urbanistic conditions - that characterize it. It also means taking into consideration the constructive systems and types of materials that are available, as well as the way of life, and the socio-economic and political systems. In other words, no matter how advanced globalization is or may become, all of these conditions make a house constructed in the Swiss Alps radically different than one in the Caribbean, in spite of the fact that they may have the same program, size and budget. Industrialized production in construction must not be simplified to universal solutions that are valid for everyone. We must comprehend the historical and cultural specificity of each region and defend this specificity in the face of the homogenization that the multinationals - the real motors of globalization - would like to impose.

However, at the same time, we must also take into account the specificity of our time and the situation of each country, region or city without falling into 'superficial contextualisms' or 'pseudo-symbolic' revivalisms that are almost always signs of pronounced colonialism that can inhibit sustainable development. In order to introduce methods of industrialization in construction that would guarantee sustainability and efficiency, the specific conditions of the place must determine the orientation of this process and which elements should be incorporated or discarded.

There is no easy 'out' in this situation. In order to arrive at a point where globalization can be considered from an appropriate perspective, we must avoid extreme positions that either see it as a cure-all for society's problems or from a fatalistic attitude that sees it as a demonic force bent on destroying human culture.

Architecture has always been the faithful reflection of the order of power and of the society that produces it. The city has always been able to be read as a three-dimensional map, the expression of the social classes and the class struggle.

It is for all of these reasons that I believe that architectural education (or that of any other field) should be based on three basic principles:

1. It should be the profound expression of its times as a concrete historical moment, without nostalgia for a lost past or without ecstatic leaps toward an imagined future.
2. It should always be specific, belong to the specific cultural conditions of the place where it is realized. By cultural, I refer to historical, political, social, geographical and technological conditions.
3. It should always be open to transformation, taking into account the social and cultural milieu in which it is

produced.

These three basic principles are general in character and independent of the level of globalization that is present in a determined society.

Architectural Education for Our Time

Architectural schools should generate knowledge. Architectural schools that do not generate knowledge become academies because they only repeat knowledge.

During the 1990s new conditions for architecture began to be recognized and defined such as architecture on the grand scale, architecture on the edge, architecture on the periphery, the architecture of the terrain vague. All of those conceptions - combined with the new technological materials and methods and the changed relation between the constructed infill and the 'void' - have resulted in so-called hybrid buildings, or architectural 'containers' that respond to indetermined programs that are in permanent flux.

In essence, today's buildings for libraries, museums, universities or hospitals have almost nothing to do in either formal or functional terms with their counterparts even ten years ago. Really, the only certitude that we can count on nowadays is that such constructions will require change at an exponential velocity, which means that the transformation, the metamorphosis of both the program and mechanical equipment and at times, even the essential character of the buildings themselves, is an endemic condition of the design process.

To these changes of content, we should add the new technological developments in materials as well as in the processes of construction and a greater implication all the time of the building industry. The utilization of prefabricated elements, serial production, and so on, has converted construction into a process that more closely resembles assembly line production than a work of craftsmanship.

This situation demands that the schools reflect these new issues in the contents as well as in the design methods.

We should investigate technology, so that architectural students are provided with a background that will allow them to resolve the design problems that they will face in the future. Departing from knowledge about technological innovations, they can understand the options for generating new spaces for the new necessities and demands of society.

Clearly, the study of new recycled materials, the use of prefabricated systems, the design and construction devices that make possible the permanent renovation of the mechanical and electrical systems, as well as many other constructive, programmatic or functional proposals, should be a point of departure for the architectural education of today.

Finally, we should take into account how the design process has been changing as the result of the incorporation of new technologies. The incorporation of the computer, electronic mail, CD-ROM, virtual models, three-dimensional perspectives, animation, and so on, are all advances that permit greater possibilities for project development and at the same time allow for the greater capacity for introducing

variations and adjustments in the design process.

If this is briefly the actual state of architecture, it is clear that the schools of architecture are, in general, very far from confronting the situation in its totality.

Reformulating Architectural Education - An Example in Catalunya

In Spain and more specifically in Catalunya, where I practice as an architect and am a professor at the Polytechnical University in Barcelona, all of this has given rise to new problems and new programs.

In 1993, a plan to revise architectural education was proposed in accordance with the guidelines set forth by the Ministry of Education and the Polytechnical University. In general terms, the course of study was reduced to five years, ending with a thesis project.

Intended to resolve the problems of a curriculum that was the summary of subjects disconnected from each other and with major problems of coordination, this plan established the system of interrelated studios known as TAPS which are a sort of spine around which the academic plan is structured. Essentially this means that the same project is utilized in diverse classes such as architectural design, urbanism, construction, or drawing, although each of these classes conserve their differentiated theoretical focus and examinations.

The program consists of ten TAPS. In the first a general overview of architectural concepts at all levels is presented. The second stage focuses intensively on the most recurrent issues of our society including housing - both individual and collective; public buildings and finally projects of rehabilitation, reconstruction and enlargement of existing buildings. In the ninth TAP there is investigation into new issues that now arising and in the tenth TAP the students complete their thesis project, which is a synthesis of the knowledge they have acquired in the previous studios.

The Future of Architectural Education

In summary, as schools of architecture enter into the new century, they should embrace all these modifications of contents and means of construction if they want to produce architects capable of undertaking the challenges of the present and immediate future. Moreover, it is imperative that architectural education confronts the problems society faces, searching for solutions hand-in-hand with other disciplines and, above all, with the construction industry. These solutions must be adapted to and determined by the specific conditions of each region or country, keeping ever-present the sustainability of our cities as the main goal.

But also we should produce architects who are able to understand our historical place in time and who not only have the capacity to bring forth new typologies and new architectural concepts but also have the ability to direct the process of the technological transformation of construction as did the masters of the Modern Movement, like Mies, who experimented with the curtain wall before the industry had invented it, thereby exacting its production from industry.

A school that sets out these objectives will need to make significant modifications in its curriculum and its teaching methods. Without a doubt, this implies that the faculty must believe in and support this transformation, which will be reflected in the design problems assigned in the studios as well in other courses.

I think that the studies should deal with everyday problems and work at investigating new concepts and typologies for housing, schools, offices and factories, while exploring such concepts as architectural containers, hybrid buildings and the new concepts of urbanism on the grand scale for the possible solutions. The treatment of the urban edges and the metropolitan peripheries should be the object for permanent research, always with the idea that these are buildings to be constructed and that they should be able to transform our inhabited space.

The technical courses should become openly involved in the investigation of new construction processes as well as new materials and systems and, to the point to which it is possible, the students should be encouraged to work directly in relation with the construction industry or related manufacturers whose research can benefit progress in building construction.

The courses of Architectural History and Urbanism should offer an extensive background in terms of history as well as theory, but also refer permanently to the mechanisms that permit an understanding of the relationship between past and present, thereby establishing a knowledgeable basis for the search for our future.

The computer laboratories are indispensable since the domination of this technology is a priority for the new architects. Intensive study should be obligatory and be featured as a central point of the new curriculum.

Finally, it should be emphasized that the 21st century will be focused on information networks and interchange at a global level and thus it is very important to encourage in-depth study of the specificity of each place, so as to offset the tendencies of globalization that threaten the endurance of cultural identities.

I understand that a transformational process such as this must be produced over time; that it will be invented day by day, step by step, experience by experience, and that it will not be free from errors, regressions and reformulations. But for me, neither the speed by which these goals are accomplished, or the route that is taken to attain them are the most important priorities. Rather what is important is the resolution to create together schools that are capable of integrating industry as well as other disciplines in a collective endeavor to conceive and construct a new architecture for now and the times that await us.

TRANSCULTURAL DIALOGUE IN ARCHITECTURAL EDUCATION

A G KRISHNA MENON, INDIA

Globalization in Context

Any discussion on globalization and Indian architecture needs to take into account the immense heterogeneity of the country. Not only are its physical and economic conditions diverse, but people in the various layers of society live radically different lives and, consequently, have sharply divergent world-views. Indeed, most individuals harbor such conflicting valuations, that it provoked the poet-linguist A.K. Ramanujam to speculate: "Is there an Indian way of thinking?"(1) The country, even after over fifty years of Independence, does not display the same degree of national consolidation and 'emotional integration' as Western ones, either now or when they were on the eve of their industrial revolutions. (2) This, I argue, should call not merely for qualifications and reservations while undertaking transcultural studies, but for fundamental change in approach.

My paper is about developing such a change in approach. At the outset, one must recognize that this will be difficult at both ends, Indian and Western, because at both ends people have developed dogmatic mindsets. In India, the development of modern architecture was decisively mediated by colonization, so it is hardly surprising that Indian architects are unable to eschew the use of Western theories, models and concepts in their work. (3) The West, on the other hand, is riding the crest of globalization, and will find it unnecessary to question the foundations of that position, particularly in dealing with India and other developing countries. In such a circumstance, the potential benefits of transcultural dialogue are obscured, its outcome seriously distorted. (4) Most social science disciplines routinely, self-reflexively, acknowledge subtextual power-politics that set the parameters for 'dialogue': in the discipline of architecture, unfortunately, the hegemony of Western academics and practice pervades and obstructs equitable exchange.

The prospects for equitable dialogue are further vitiated on account of globalization. To the West, as I mentioned, this is not an issue and, in fact, the process of globalization is seen as a self-evident truth, a vindication of capitalism and liberal democracy, which will ensure greater common good for all, including the down-trodden in other parts of the world. (5) Many people in India uncritically espouse this stance. Others, however, remain skeptical, regarding globalization as a process of re-colonization. (6) It is useful therefore, to recall critiques of colonial discourse which have demonstrated how its authority was predicated on an elision of the specific relations of power and knowledge that produced it. (7) As globalization spreads, these analyses should not be forgotten because, given its nature and power, there is danger that the present dialogue too, could repeat this process, especially in the field of education and architecture. As Edward

Said has pointed out, "the process of imperialism occurred beyond the level of economic laws and political decisions, and - by predisposition, by the authority of recognizable cultural formations, by continuing consolidation within education, literature and the visual and musical arts - were manifested at another very significant level, that of national culture, which we have tended to sanitize as a realm of unchanging intellectual monuments, free from worldly affiliations." (8) Let us remember that architecture and education are not free from worldly affiliations and that they become the entry points for economic and cultural hegemony. To highlight this point, Said goes on to quote William Blake: "Empire follows Art and not vice versa as Englishmen suppose". (9) As educators engaging in transcultural dialogue under the shadow of globalization, it would be salutary to heed these cautionary insights.

How, then, do we proceed? To begin with, there is a need to distinguish purposefully the voices of the protagonists in the dialogue. In the globalization discourse, the voice of the 'other' is generally marginalized or co-opted. I, therefore, take a position that is self-reflexively Indian and, moreover, foreground this position: if 'we' are to make sense of the problem, it is essential to understand the issues from the viewpoint of the 'victim', while remaining wary of the politics of victimhood. (10) This shift in focus enables us to situate the dialogue at a site outside the bounds of Western interests and priorities, and critically examine why 'we' desire to engage in the dialogue. Such questioning can mitigate the propensity to unconsciously renew colonial discourses.

A second necessary shift is to develop complex - non-essentialist and non-static - images of each other. Globalization, like colonization, succeeds by simplifying the terms of the encounter and maintaining a short-term perspective. Needless to say, denying or avoiding the multi-faceted, dynamic nature of any encounter fails to appreciate the power-knowledge relationship that connects the protagonists of globalization, and only consolidates inequity. Hence, issues like "teaching the 'foreign' student" or "transcultural field studies", which emerge on account of globalization, must be redefined to transcend the straightforward pedagogic concerns of the classroom of the 'dominant' partner in the dialogue. One way to do so is by forming complex images of the 'other' - whether this is the foreign student or the foreign site being studied. Recent anthropological scholarship has interrogated the discipline's colonial underpinnings and attempted, instead, to produce knowledge of the "complex local histories" of the "emergent cosmopolitanism of the world." (11) Architectural pedagogy would do well to adopt a similar interrogatory will, a like-minded appreciation of the complex networks that bind us all, First World and Third.

The third shift is to understand that while globalization brings about change in all societies, the effect of these changes is more profound in 'traditional' societies like India's (12). As the local is connected to the global, some theorists see time and space being "compressed", (13) while

others as "distanciated". (14) These changes were experienced as a steady evolutionary progress in the West, but in countries like India, where the process is being considerably fore-shortened and even short-circuited, the experience can be tragic. In the architectural studio, for example, the connectivity facilitated by globalization results in the Indian student developing an ersatz familiarity with, and a consuming passion for, architectural developments taking place in the West. This, of course, enables the Indian student to fit comfortably into the classroom in Western universities, but does little for the development of local architecture. As Manuel Castells points out, the issue is more than connectivity, because each place that gets connected has "well-defined social, cultural, physical and functional characteristics". (15) The erosion or loss of these characteristics leads to the development of a shallow architectural culture and a dependency on external/Western sources for architectural ideas. Not surprisingly, this also translates into economic dependency because it promotes the use of unsustainable materials and technology in the field. Indian urbanscapes are now dotted with sleek glass curtain wall towers that have no connection to the local culture, climate or availability of infrastructural resources to support their functioning. Thus, in addition to "flattening" the cultural field, globalization also impoverishes local economies.

While on the subject of local cultures, the growing evidence of the revival of indigenous building traditions in India is another issue that needs to be addressed. The spread of Western ideology through colonization did not eradicate pre-existing systems of building. These have continued on their own evolutionary course between the interstices of modern development practices. In India today, one is confronted with two diametrically opposed options of architectural construction - the modern/western and the modern/indigenous - each compelling in its ability to provide viable architecture to different sections of society. Privileging the former ignores the needs of the vast majority of the country. Redressing this colonially inherited bias in architectural development is the fourth requirement of a productive dialogue. But here one must add a caveat: shifting the focus onto traditional architectural practices brings with it the danger of revivalism. Studies undertaken by US universities in India often accomplish little else. (16) Attempts to revive indigenous building practices must also guard against the pitfalls of Orientalism. (17)

Changing the terms of our dialogue in the ways I have suggested opens up a plethora of options. One could advocate revolutionary change or espouse an almost Luddite-like opposition to it, urge an emphasis on 'state-of-the-art' systems and technologies so as to 'catch-up' with the West (18), or explore traditional knowledge and technologies, to mention just a few. In this sense heterogeneity and multiplicity have quite different connotations in the West and in India: in the West they refer to differences within a dominant cultural metanarrative, while in India they refer to different paradigms - systemically different logics each - of architec-

tural production. At first glance, it might appear that the issues in architecture and architectural education in India are Western ones because, after all, the visible and articulate elite in India is Westernizing quite successfully. However, a closer study would indicate that, because the process of Westernization is not complete, there exist unique opportunities to respond to the needs of the majority, and seek more appropriate directions for architectural development. Our task as educators is to reorient transcultural dialogue to this situation.

A Mutually Empowering Agenda for Architectural Education

The new agenda for architectural education, then, will have to address three issues: first, those relating to sustainability in both the ecological and human systems under conditions of poverty and scarcity of resources; second, the objective of the conservation of built and natural heritages both of which are being degraded at an alarming rate; and third, how to deal with emerging technologies and their implications for architectural design and education. The last will determine whether these technologies force the adoption of unsustainable and inappropriate ways of building or respond to the vast range of local conditions. These issues, in whole or in part, are being addressed by a few Schools in the finest traditions of reflexive thinking in the area of architectural education. There is a pressing need to build on these initiatives.

Both the international women's and environmental movements can guide us in renegotiating transcultural dialogue. In her monograph, *Monocultures of the Mind* (19), Vandana Shiva persuasively demonstrates how unipolar sensibilities - "monocultures" as it were - inevitable produce unsustainable technologies. Although her focus is agri-business, her argument is noteworthy: our complex world - be it natural or social - demands a multiplicity of paradigms. And this is not an unrealistic goal: the women's and environmental movements have each formed alliances at the local, national and international levels without sacrificing local autonomy. Both also link theory and practice in such a way that each is grounded in the context of the other. Architectural pedagogy and practice needs a similar vision.

Architecture in the West, at least since the advent of modernism, has focused on the avante garde. The pursuit of the avante garde dovetails with the imperatives of consumerism, first within the boundaries of a local market, and later spreads to dictate conditions in the global market. Teaching architecture in a world of growing "permissiveness and speed" (20) forces teachers to retreat in a *laissez-faire* acceptance of conditions as they are. Few question its implications either for themselves or for others, or the pernicious proclivity to cast the West in the universal mode; few in the West need to. This must be resisted both from within and without. The shift in focus that I advocate enables us to learn from the experience of countries like India, currently at the periphery of the Western field of vision. The periphery needs to be

brought into focus, not merely as an object of cultural or commercial curiosity, but as an active agent in determining the nature of globalization discourse.

What can the West learn from the India? For one, how to deal with deprivation and scarcity. The resources of this planet are finite and if India were to emulate the West as is being suggested by both multinational business interests and Western educational institutions, the consequences would be disastrous - for everyone. Surely it is better, by far, that the best practices of India become more widely adopted, not only in other parts of the Third World as international aid agencies recommend, but in the First World as well. For another, some of the finest cultural resources exist in India and the Third World as living traditions. The First World has lost much of its own through industrialization and wars and a similar prospect confronts the Third World. This will be a profound loss for the cultural diversity of our planet. Similarly, some of the finest examples of conservation-oriented development practices exist in the Third World: one has only to see the documentation and research produced by the Aga Khan Foundation to appreciate the strength in this proposition. These strategies need to be foregrounded and made models for wider application.

In the discipline of architecture, globalization is a phenomenon that has been more often assumed than explained by professionals and academics alike. Its potential has been exploited by some, often at the cost of others. Transcultural dialogue in architectural education needs to redress this situation; it offers an opportunity to direct the potential of this dialogue to benefit not only the protagonists involved, but also the discipline itself. To translate these ideas into action, we need to formulate a new interdisciplinary program, situated at sites around the world, which will research and advance a disciplinary manifesto with an international vision. I commend this proposal for your consideration.

ENDNOTES

- (1) A K Ramanujam, "Is There an Indian Way of Thinking? An Informal Essay," in *Contributions to Indian Sociology* (New Series) Vol. 23, No.1, New Delhi: Sage Publications, 1989.
- (2) Gunnar Myrdal, *Beyond the Welfare State*. New Haven: Yale University Press, 1960, pp. 72-77 et passim.
- (3) cf. Ritu Bhatt and Sonit Bafna, "Vistara : A Critical Appraisal," in Vikramaditya Prakash, (ed.), *Proceedings of the Theatres of Decolonization Conference*, Chandigarh, January 6-10, 1995, Seattle, Washington: Office of the Dean, College of Architecture and Urban Planning, University of Washington, 1997, pp. 51-52.
- (4) cf. David Prochaska, "Ethnography of a Post-Colonial Site: Sarnath", in *Proceedings of Theatres of Decolonization Conference*, op. cit., pp. 327-350. Prochaska analyzes issues of identity, appropriation and contestations involved in post-colonial representations of Sarnath, by focusing on design plans prepared in the late-1980s by the University of Illinois Department of Landscape Architecture. The University's study was organized by the U.S. National Parks Service using funds generated from American foreign aid to India under the Public Law 480 program. Access to this massive resource enabled the NPS to arrogate to itself the responsibility for the development of several other sites with a potential for cultural tourism.

- (5) Of course, one recognizes that it is not correct to attribute a homogenized view to either the First or Third World. As James Clifford pointed out, "Difference is encountered in the adjoining neighborhood, the familiar turns up at the ends of the earth". (James Clifford, *The Predicament of Culture, Twentieth-Century Ethnography, Literature, and Art*, Cambridge, Ma: Harvard University Press, 1988, p. 14) While there are many opponents to globalization within the First World, the economic regime imposed by the First World dominated World Bank and the World Trade Organization presents an aggressive, intransigent face of globalization to the Third World.
- (6) cf. Noam Chomsky, *Profit Over the People: Neo-Liberalism and Global Order*, Delhi: Madhyam Books, 1996.
- (7) Thomas R. Metcalf, "Past and Present : Toward an Aesthetic of Colonialism", in G.H.R. Tillotson, (Ed.), *Paradigms of Indian Architecture, Space and Time in Representation and Design*, Oxford: Oxford University Press, 1997, pp. 12-25.
- (8) Edward W. Said, *Culture and Imperialism*, New York: Alfred A. Knopf, 1993, p.12.
- (9) *ibid.*, p.13.
- (10) See for example, Ian Baruma, "Joys and Perils of Victimhood", *The New York Review of Books*, Vol XLVI, No.6, April 8, 1999, pp. 4-9. Baruma, in fact, makes the point that 'victimhood' is often used as a pretext, a badge of identity. Such perceptions contribute to underplaying the real problems of globalization.
- (11) cf. Arjun Appadurai, "Global Ethnoscapes: Notes and Queries for a Transnational Anthropology" in *Recapturing Anthropology: Working in the Present*, Richard G. Fox (ed.), Santa Fe: School of American Research Press, 1991, pp. 191-210.
- (12) See for example, Saskia Sassen, *Losing Control? Sovereignty in an Age of Globalization*, New York: Columbia University Press, 1996 and Saskia Sassen, *The Global City: New York, London, Tokyo*, Princeton: Princeton University Press, 1991. Sassen argues that a profound transformation is taking place, a partial denationalizing of national territory, thus radically altering the landscape of governance in the era of globalization.
- (13) David Harvey, *The Condition of Post-Modernity*, Oxford: Basil Blackwell, 1989.
- (14) Anthony Giddens, *The Consequence of Modernity*, Cambridge, Ma: Polity Press, 1990.
- (15) Manuel Castells, *The Rise of Network Society*, Oxford: Basil Blackwell, 1996, p. 413.
- (16) cf. David Prochaska, "Ethnography of a Post-Colonial Site: Sarnath", *op.cit.*
- (17) Edward Said has written trenchantly on the ontological significance of oriental studies initiated in colonial times to the development of Orientalism and the subsequent powerknowledge relationship between the West and the East. This relationship established the positional superiority of Western scholarship and was based more or less exclusively on a sovereign Western consciousness defining the Oriental world. See Edward Said, *Orientalism*, New York: Vintage Books, 1979.
- (18) For example, the current standards in construction technology in India are so poor that it is estimated that only two or three Indian firms are able to compete for construction projects on international terms.
- (19) Vandana Shiva, *Monocultures of the Mind*, London: Zed Books Ltd., 1993
- Pierre von Meiss, "Design in a World of Permissiveness and Speed" in Martin Pearce and Maggie Toy, (Eds.), *Educating Architects*, London: Academy Editions, 1995, pp. 110-115.

IN FACE OF GLOBALIZATION

QINNAN ZHANG, CHINA

The two professors who spoke before me have made brilliant analysis on the impact of globalization on architectural education. I don't think I can add anymore except to emphasize three of my personal viewpoints:

- Globalization is an inevitable and in-escapable development in the 21st century. It is a natural outcome of the information age.
- Globalization is like a two-edged sword. On the one hand, if handled correctly, it can increase human productivity and welfare many times; and on the other hand, if handled incorrectly, it can widen the gap between rich and poor, both between countries and within countries, and cause all kinds of conflicts.
- In some ways, the present age is similar to the age of industrialization which led to great strides in productivity and also colonialism. The difference now is that economical power seems to overtake political dominance and software is taking the place of hardware such as guns and firepowder or even atom bombs. Knowledge becomes essential, both to the developed and maybe more to the developing countries. It is only through knowledge proliferation that the poorer countries can catch up with the rich ones and close the gap. That is why EDUCATION is one of the most, if not THE most, effective and efficient means for developing countries to meet the threats and challenges of globalization.

In face of the rapidly spreading globalization, it is imperative for the developing countries to devise a kind of reactive strategy so as to meet with the challenges, the threats and the benefits of globalization. I shall concentrate on the case of my country - China.

The architectural profession in China (I am speaking of the Mainland China, not including Hong Kong, Macao and Taiwan where situations are drastically different) is in a complicated and somewhat contradictory situation. The main features are:

- China now occupies third place in international construction market, though far beyond those of USA and Japan which precede it. This should be an index to the social demand on architects and architecture;
- China established its architectural registration system in 1995 specifying two classes of registered architects. Now we have about 9000 Class I RA's (with no limitation on jobs) and 20000 Class II RA's (limited to undertaking medium and small size projects), which means that out of one million population, we have 24 certified architects, whereas in West Europe and USA, there are 300-400 registered architects (unlimited) per million population.
- As a result, "architecture" becomes one of the most coveted disciplines to young students. In the beginning of the 1980s, we had 8 universities with architectural schools ("the old 8"); since 1990 the number has increased "exponentially" The present figures indicate that there are 81

universities offering architectural programs with a total enrollment of around 15000 students, among them, at the end of 1999, we had 18 schools formally accredited. Furthermore, we have about 160 middle professional schools offering "building design" and/or "building decoration" programs for future Class II architects, with a total enrollment of about 13000.

- Despite the low figure of architects by total population, the great majority of these RA's are concentrated in urban areas, especially the more developed coastal cities. So the actual population that Chinese architects offer their professional service is much less than the total, meaning we actually have about 100 certified architects per million population.
- The matter is further complicated by the fact that in Chinese vocabulary, the term "architect" appeared only by the 1920s or 1930s. Before that time, we had Master Builders as in the pre-Renaissance age in Europe. Despite the magnificent architectures they produced, they belonged to the lower social strata and their names almost never appeared in record. Even today, many people in society regard the architectural profession as a branch of engineering or an architect as one engaged in "dressing up the buildings". Most architects' job stopped on delivering the working drawings, from then on, special "supervising firms" take over the project management job. As a result, some local authorities in the coastal regions are already complaining on an "excess" of architects who compete for jobs by lowering the fees and, consequently, qualities.
- China now can boast of having the third tallest tower in the world and a number of the largest international airports. A globally largest opera house is under construction. But many of these mega-projects are designed by foreign architects, at least at the conceptual or preliminary design stages. At present, the Chinese regulations demand that all foreign architects undertaking jobs in China should do it by joint design with a local firm.

With this picture I have presented (which I believe is more or less similar to other developing countries), you can imagine what will be the outcome with globalization and the entering of China into the WTO. More multi-national corporations will come in and employing their own architects for large-scale and high-tech projects. But still, both in the long run and at present, the bulk of the work (especially in housing) will have to be undertaken by the indigenous architects. That is why I say a kind of strategy is needed to meet with the challenges, the "threats" and the existing and coming problems

To me, this strategy should consist of the following major contents.

The public and the society (architects included) should be educated and informed of the proper role of an "architect". In the tradition of a Master Builder, a contemporary architect is nothing more and nothing less than a coordinator (an integrator) for the improvement of the living and built

environment (including cultural environment). I am happy to say that many people in the media are now supporting us in this effort.

In contrast with many developed countries, we need both quantity and quality for our architectural profession. With development going on everywhere, we definitely reject the assertion that there is now an "excess" of architects in our country. On the contrary, we need architects (and/or persons with architectural education background) not only for design practice, but for project management, developer corporations, urban design and reconstruction, interior decoration, building material enterprises, schools and research institutes and even for the media.

For this reason, I suggest that we have some teaching programs (at least in some schools) that offer a "core" program (maybe in the first three years, like the RIBA Part 1) to be followed by more elective courses: studio work, business management, engineering, environmental science, psychology, etc. Whether all the graduates should be given the professional degree of Bachelor of Architecture can be debated, but such variety may be more suited to our actual needs. Furthermore, professional schools of middle level should continue to be encouraged, so that we can have a more balanced distribution of architects over the territory

We need to further strengthen the system of architectural accreditation (validation) and professional examination which we established in the 1990s. The examinations test the candidates' competency in assuring safety, health and welfare, whereas the goal and scope of education are much higher and broader. Most important of all, it should include the cultural aspects besides the technical. A student should learn to respect his (her) own indigenous culture and to preserve the rooted cultural value in a modernizing context. Unfortunately, today in China, some local architects are sometimes even more eager to carry out "destructive construction" in the name of "modernity" than their foreign counterparts.

In face of globalization, China will continue to welcome foreign architects on reciprocal and equilateral basis. (I don't think we have to worry very much on the foreigners' competing for architectural jobs, because though the market is big, the fee is very low, except for some mega-projects). At present, there is an Accord between the NCARB (USA) and the NABAR (China) for joint design in the host country by registered architects in either country; and comparative studies are being carried out on the accreditation, internship and examination which will hopefully lead to total mutual recognition of such standards. The Architectural Society of China joins the American Institute of Architects to be the Co-directors of the UIA Professional Practice Commission, which aims to establish a workable international standards for architects worldwide. I believe we shall continue with such activities.

Also, the work of UIA Professional Practice Commission is noteworthy here. The commission was established in 1994 to study and make suggestions on professional matters that concern the member sections. At present, some 40 countries

have representatives in the Commission. One of its major tasks has been to draft an international practice standard for architects so as to promote mobility and cooperation and also to help the architectural professions of individual countries to improve their own standards. A framework for this standard was adopted in 1996 by the General Assembly in Barcelona, and in 1999 the formal document was unanimously approved by the 100 member sections that attended the Assembly meeting in Beijing. This Standard consists of an Accord stating the fundamental policies and 6 guidelines dealing separately with accreditation, training, competency, procurement, ethics and continuing professional development. The unanimous opinion is that a certified architect (at least in international practice) should have a basic education from an accredited 5-year program, not less than 2 years of practice training, and passed an examination or produced other evidence of competency for practice registration. A model ethical code is drafted and adopted, and three basic types of procurement -direct negotiation, competition and quality-based selection (QBS) - are recommended. Foreign architects working in a host nation are urged to associate with local architects, and recommendations are made on continuing professional development. The member sections are encouraged to bring the matter to their individual governments and the WTO has been approached to endorse this standard as

basis for bilateral or multi-lateral mutual recognition negotiations, as is now proceeding between USA and China. Copies in English, Spanish, French, Russian are available from the UIA member institutes, and work is continuing in the Commission to further improve the documents. I think this is also the response to the globalization trends from a world organization said to represent 1 million architects around the world).

We also need a nation-wide continuing education program for practicing architects. It seems that there is a wide room for international cooperation in this aspect.

Before closing, I must say a few words of thanks to the American architectural educators. Most of our first generation modern architects and architectural educators were trained in America in the 1920s and 1930s (some in Japan and Europe). They brought back the architectural education system (together with the term of "architect" in our vocabulary) and set up the originals of our "old 8" in China. And then in the 1990s, when we set up our accreditation system, quite a number of American educators have come to China to join our visiting teams as Advisors and many schools in America have received our educators as visiting scholars, not to say the hundreds of Chinese architectural students learning now in American schools. So, let me close my talk with a warm "thank you all."