

ARCHITECTURAL EDUCATION AND CULTURAL CONTEXT IN THE UAE: CHALLENGES AND OPPORTUNITIES

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ABSTRACT

Recent researches about architectural education in the Arab and Islamic regions identify the fact that current programs are compromised by course content that is disconnected from their socio-cultural contexts. This paper examines the architectural curricula taught in the UAE, their strengths and weaknesses with reference to local cases. It offers a positional interpretation of examples taken from the Gulf region and the Islamic world at large. Acknowledging major trends in this educational system, we argue that this system in UAE faces most of the challenging issues of architectural education in the region. Our investigation revealed the poor integration of cultural references in these programs. This is reflected in the feebleness to form graduates, who master an "architectural language" that is deeply rooted in their local and regional culture. These perceived weaknesses are considered as a counterpoint to the opportunities available to graduates who aspire to create contemporary architecture in the Arab and Islamic regions that is inspired by local material culture.

Keywords: *Architectural Education, Islamic architecture, Architectural theory, culture based learning, Architectural language, cultural context*

1 INTRODUCTION

In his address to the conference about Architectural education in the Muslim World, Spiro Kostof describes the character of architecture as being a language, expressing the culture that produced it and that should be understood by itself: "...Architecture is itself a language of cultural expression. (... It means) that you can read from buildings, without the help of any other documents, the intentions of the culture that produced them" (Kostof, 1986). This was the case of the architecture in Muslim and Arab regions during the so-called "classical Islamic" era. But if we explore this architecture nowadays, no matter whether it is in rich or less fortunated countries, similar observations are expressed by several specialists (Al Harthy, 2002). As Gulzar states "The metropolises of the Muslim world today are psychiatric records of a people in a painful search for identity and a language of expression (...) The Muslim mind is in a state of amnesia and, in some sense, a cultural schizophrenia" (Gulzar, 1986).

How can one explain this "mindless eclecticism" In a region known for an architectural heritage that continues to attract admiration, scholarly critique and emulation? Many scholars have examined this perceived deterioration in the quality of the built environment and attributed it to a rupture in the region's cultural system of references (Arkoun, 1983; Hakim, 2010; Awad, 2002). It seems that the principles that made the essence of the Islamic

civilization and its architectural production have been lost during the process of “Modernizing” the formation of architects in the region. This situation nurtured a rich and still on-going debate about how should we educate architects who would design an architecture that fulfils the requirements of a modern lifestyle and reflect the cultural identity of Muslim societies at the same time? An architecture which principles are inspired from the acclaimed and sustainable built heritage of the past to improve the chaotic architecture of the present and lead to an authentic and value based built environment for the future?

Even if it has been preceded by some isolated publications (Yildez, & Tapan, 1983) we can consider the Seminar Ten in the series Architectural Transformations in the Islamic World, held in Granada, Spain in April 21-25, 1986, as the initiation of the scholarly debate about this matter. Within the framework of the Aga Khan Awards of Architecture, for instance, numerous conferences and seminars have been held about this subject and important books and articles were written and became reference in this matter. Conferences such as: Architectural Education in the Islamic World (1986) where the papers of Kostof (1986) and Gulzar (1986) were precursors in the subject. In Architectural Knowledge and Cultural Diversity (1999) the articles of Salama (1999) and Özkan, (1999) were directly focussed on the question of cultural diversity and the manner of integrating history in architectural education. And in Architectural Education Today: Cross-Cultural Perspectives (2002) where Kambiz (2002), Awad (2002), Al Harthy (2002) and Rabbat (2002) as well as other contributors have debated enlightening ideas about the question.

With the exception of some very limited attempts about the architectural education in Kingdom of Saudi Arabia (Akbar, 1986), these debates haven't yet permeated the architectural education in UAE and the Gulf. To understand this situation, one should consider the fact that research about architectural education in these regions, is relatively recent. On the other hand, it needs a certain time, maybe some generations of graduates, before questioning the quality and the major orientations of any educative system. Most of the architectural programs taught in UAE are less than 15 years old

(with the exception of the program in UAE University) (Table 1). It is only now that these programs are being evaluated (Benkari & Boudidah 2011) and hence it became possible to develop studies and reflections about their pertinence.

Our contribution is meant to feed this scholarly debate with an attempt to address the subject from two perspectives:

- What are the aspects that characterize the architectural education in the UAE and, by extrapolation, the Arab-Islamic societies?
- Considering that a coherent architectural education should respect if not promote the cultural context of the society it serves, then it is legitimate to verify this standing position in the academic programs that form the architects in those regions.

Ultimately, this paper identifies the main challenges and opportunities of architectural education in these countries and particularly in UAE. Our hope is that these thoughts could trigger other case study based research about the education of architects in the Arab-Islamic countries in order to re-focus the architectural practice for a more sustainable built environment anchored in its physical, cultural and socio-economic contexts.

2 METHODOLOGY

Architectural education in the Arab and Islamic regions is a topic that has been debated through several papers such as Chaderji (1986); Djerbi (1986); Akbar (1986); Salama & Abdulgaber (2005); or Özkan (1986) Desai (2010) and Najimi (2012). The present paper is the first to address this question in UAE. It is the third of its kind to focus exclusively on the region of the Gulf. The research draws on the authors' experience in UAE as architects, educators and program coordinator. The methodology adopted involves the analysis of available theoretical literature about architectural education in the Islamic World. Employing a preliminary content analysis procedure, the research investigates the structure of eight architecture programs in UAE (which are the only programs accredited in the country) by examining their

curriculum composition, and the credit hours allocated to culture-based core courses. The content analysis has been conducted on the available pedagogic documentation describing each program. Based on the available literature about the subject, this paper offers also a positional interpretation of the architectural education in the Arab and Islamic countries and establishes parallels with the education of architects in UAE.

The limits of this methodology are related to the availability and accuracy of the documentation to be analysed. Furthermore, the research does not investigate the quality of teaching or students' performances for the identified courses. The findings that will be discussed in the following pages are based on the documentation published on the considered universities' websites. In spite of these limitations, this method remains accurate for the matter concerned in this paper. The aim is to understand the general content of the architectural curricula in UAE in relation to architectural production in the Arab and Islamic regions in the past and the present.

3 Overview of the architectural education in UAE

The academic formation of architects in UAE started in the 1970's. This is probably related to the fact that the seven Emirates that form the UAE today were unified in 1971. The oil exploitation in this region became massive since the 70's and the huge revenues it generated and the number of foreigners it attracted to the country accelerated the need to graduate locally trained architects. (Table 1).

Table 1: List of architectural programs taught in UAE (Source: Authors)

University	Year of inauguration	Degree Name	Status
UAEU	1981	BAE	Public
AUST	1998	BAE	Private
AUS	1998	B. Arch	Private
UOS	2004	BAE	Private
AHU	2007	BAE	Private
AUD	2009	B. Arch	Private
ADU	2010	B. Arch	Private
CDU	2010	B. Sc. Arch.	Private

Before the organization of the discipline in higher education programs within universities, and in order to satisfy the needs of the construction efforts in these countries, UAE have imported the expertise from abroad (mainly North America, UK and the middle East). The increasing needs of the countries of the Gulf in terms of construction and urban development have rapidly exceeded what the foreign assistance could offer. It was time to start a local formation of professionals. Due to the strong relationships and the continuous cooperation of these countries with the United States and the United Kingdom, the educative system in architecture was initiated based on the American or British models. In the UAE, like in the other Arab and Islamic countries, it is exclusively the government that regulates the higher education's structures. The architectural programs have to fulfil the ministry's criteria in order to be locally accredited. Most of the investigated programs usually go beyond the local accreditation to seek for international recognition from ABET¹ or NAAB²) (Table 2).

4 Challenges faced by the architectural education in UAE

4.1 Architectural education and the cultural context

There is a recurrent observation expressed by several researchers concerning the very weak cultural foundation of the architectural curricula taught in the Islamic regions (Al Harthy, 2002; Gulzar, 1986; Awad, 2002). The situation is not much different in the Gulf. Indeed, our case studies in the UAE showed that the proportion of credit hours dedicated to cultural-based core courses compared to the total number of credit hours per program appears to

¹Since 1932 ABET is the recognized body for the accreditation of Engineering programs in US universities and internationally. ABET gives its label to more than 3100 program and 600 universities and institutes and universities world-wide. <http://www.abet.org/> Retrieved on 20 September 2013.

² NAAB is the National Architectural Accrediting Board. It is the unique Agency authorized to deliver professional accreditation for architectural programs in USA. <http://www.naab.org/> Retrieved on 20 September 2013.

be quite small. It is interesting to notice that in universities such as Abu Dhabi University (ADU), UAE University (UAEU) or the Canadian University in Dubai (CUD), socio-cultural content is rarely included in core courses. The percentage of credit hours dedicated to this matter is equal or less than 5% in five of the nine investigated architectural programs (Table 2 and Figure 1).

The highest proportion of credit hours referring to the socio-cultural content was observed in the architectural program of Ajman University (AUST). This proportion however, does not reach 20% of the total number of credit hours. This lacuna is not specific to the architectural education in this region only. In fact, research in architectural education worldwide, has addressed the deficit in sensitivity to the local context in many case studies (Boyer-Mitigang 1996; Habraken, 2006; Hardy & Necdet (ed.) 1996; Hegvold, 1999). It is worth mentioning, however, that the architectural programs in the Ajman University (AUST), United Arab Emirates (UAEU), ALHOSN (AHU) and the Canadian University in Dubai (CUD) offer elective courses in built heritage conservation as part of the instruction process. They have not been included in this research's figures because it focuses on core courses exclusively.

Table 2: The credit hours dedicated to cultural based core courses compared to the total number of credit hours per program (Source: Authors)

University	Program Tot. credit hours	Tot credit hours for cultural based core courses	% of the credit hours of the cultural based core courses	International Accreditation
UAEU	168.00	3	1.78	ABET
AUST	169.00	32	18.93	RIBA (in process)
AUS	173.00	6	3.46	NAAB
UOS	167.00	6	3.6	None
AHU	138.00	10	7.24	ABET
AUD	166.00	6	3.61	Ref to NAAB
ADU	161.00	3	1.86	None
CUD	137.00	0	0	None

It is worth mentioning that, as it was the case in most of the Arab and Islamic regions, every one of the architecture curricula being taught in UAE does follow the Bauhaus school's principles (Özkan, 1986). This fact might explain even partially the weakness of these programs in terms of the reference to the particularities of the physical and cultural contexts (table 2). There have been some attempts to overcome this weakness by "Islamizing the Knowledge" but with, only a few successful attempts, the majority fell into the trap of superficiality as pointed out by precedent researches (Gulzar, 1986).

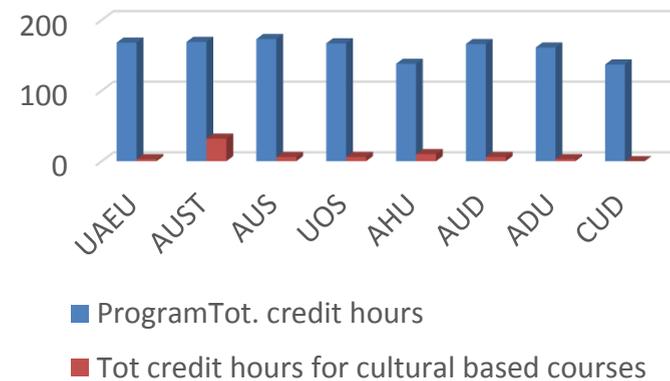


Fig. 1-a: The total number of credit hours dedicated to cultural based core courses compared to the total number of credit hours per program (Source Authors)

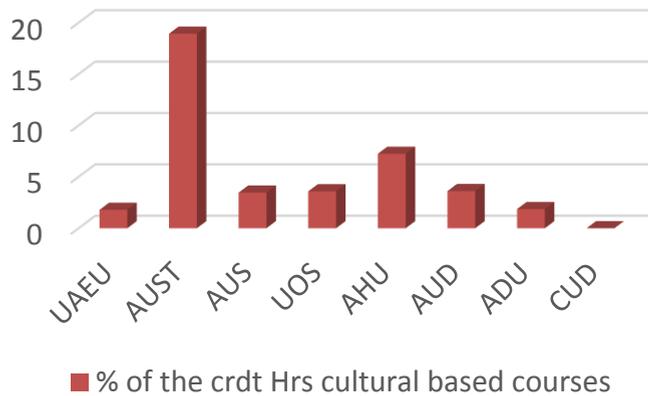


Fig 1-b: The percentage of credit hours dedicated to cultural based core courses compared to the total number of credit hours per program (Source Authors)

4.2 The course contents:

Exogeneity or seeking to meet the Western world's standards, has been inevitable and has "(...) always dominated the schools of architecture in the Islamic world" Özkan (1986). This is true for the UAE (Benkari & Boudidah, 2011) as it has been proven true for most of the architectural curricula being taught in the Islamic regions (Kostof (1986); Al Harthy (2002); Kambiz (2002); Rabat (2002); Akbar (1986); Hegvold (1999); Kartohadiprodjo (1999); Meer Mabashsher (1999). Concerning the "Islamic countries in South-East Asia specifically, one might refer to the results published in The Aga Khan Trust for Culture in 1999: Architecture Education in the Muslim World: Summary Finding of a Survey (The Aga Khan Trust for Culture (AKTC), 1999) and the ideas debated in "Architectural Knowledge and Cultural Diversity" (AKTC, 1999), notably the articles of Kartohadiprodjo (1999), Meer Mabashsher (1999) and Hegvold (1999).

For the case of the Gulf area, where English is the language of instruction and the curricula based on British or North American models, the

knowledge transmitted in this framework is strongly related to an external culture, with references, terminologies and concepts that are exogenous to the Emirati students' environment. In order to alleviate this deficiency, some instructors' personal initiatives address specific "extra-textbook" topics by linking the material they are teaching to the local context. Further research and interviews are needed to study the nature of these "personal efforts" and how much they affect the courses' contents and students learning outcomes in this matter.

In the actual situation, it is only this personal effort that can bridge the gap between the students' system of cultural references and the course content mainly focussed on "Western" concerns and references. Indeed, besides their low proportion in the whole program content, most of the "theory-based courses" are composed of topics, principles and case studies taken from the West. They rarely address the specificities of the local contexts (Benkari & Boudidah, 2011).

Furthermore, it is worth mentioning that none of the investigated programs includes a core course dedicated to the theory and criticism of contemporary architecture in the Arab and Islamic regions. Can one imagine a program in UK or North America that overlooks the study and critique of British or American architecture? This odd situation in the architectural education in our countries is aggravated with the extremely rare and poor publications presenting and criticizing local architectural production. This biased education is systematically felt in the weakness and/or ugliness of the designs that our cities' landscapes are suffering from. It is therefore crucial that theoretical as well as studio based courses in our programs do include more culturally focussed topics as pointed out in the several debates and papers that investigated this subject (Kostof, 1986; Awad, 2002; Evin, 1986; Kambiz, 2002; O'Reilly, 1999; Yildez & Tapan, 1983, Habraken, 2006).

4.3 The text books

With some interesting exceptions that are worth to be acknowledged in this paper, most if not all, the textbooks taught in the several core courses related to the principles and tools of design, are concerned with western countries

and refer almost exclusively to "western" architecture (Çelik, 1999). This fact has been underlined by most of the scholars who addressed the architectural education in "Non-Western" regions (O'Reilly, 1993; Khan, 1989; Najimi, 2012). As a matter of fact, a book such as *Form, Space and Order* (Ching 1979) used in some introductory design theory courses in several architectural programs; only 4% of the projects presented are from the classical Islamic repertoire. Less than 0.5% of the listed precedents are from contemporary architecture in Islamic regions. And among the Muslim architects that had and still have their foot print in the development of architectural theory and practice worldwide, only Sinan Pasha was indexed. Having said that, it is worth mentioning that there are many new textbooks available and which adopt a more global perspective. The revised textbook *A Global History of Architecture* (Ching, 2010), is an example of such references, even if it is still an introductory text rather than a critical study.

One would argue that with the curricula being taught as such, the students in the UAE would acquire relatively similar knowledge as any student in the West. The problem is with all the knowledge and skills s/he acquires, the graduate from these programs would certainly not be able to rightly address the local society needs (Kostof, 1986; Özkan, 1986). Indeed, one can expect that students in the Gulf would develop thorough dissertations about the Greek orders of proportions or the five pillars of architecture by Le Corbusier than about the local Sikka³, Fareej⁴ or Beit⁵.... Our students are

³ *Sikka is the UAE term given to the public streets in the local urban agglomerations.*

⁴ *Fareej is the UAE traditional housing organization. Called also fareeq or fareeg, it is also common to the other countries of the region. Now the fareej as an authentic housing configuration in the Gulf has disappeared from Abu Dhabi and most of the large cities of the countries (which makes it difficult to examine and this is yet another lost means of immersive learning). The new housing organizations in UAE have completely forgotten this system and are limited to the vague reproductions of a pale image of western villas or apartments.*

⁵ *Beit is the Arab term equivalent to home. The etymologic origin of this term is the Arab verb of Bata which means, spent the night or stayed.*

educated within the material culture of the region whilst ignorant of its terminology and referential system (Al Harthy, 2002). The Emirati cultural resources that could help any architect educated in this region to rethink a contemporary architecture that is of its place are overlooked in the core of architectural programs taught in those countries. As expressed at the outset of this paper, this phenomenon addressed in the scholarly literature in the field, is mainly due to the fact the architectural education in most of such countries has been imported as "a package" from the "West". "A package" that included the programs, the textbooks, the means of instruction, sometimes the instructors and most importantly, it included also all the misconceptions and undermining perceptions about the "non-Western" culture (O'Reilly, 1998; Najimi, 2012). *"The recognition of Hassan Fathy in the Western world as opposed to the lack of recognition in his native Egypt, is probably the most dramatic example of how Islamic countries ignored the genuine endogenous contributions to their architecture, and how they excluded such contributions from education"* (Özkan, 1986).

Even if there are some attempts for more "local" oriented architectural programs (Yildez & Tapan, 1983; Desai, 2010; Ikem, 2002), they remain fragile and their effect insignificant compared to the extent of the region and the amount of efforts still to be done. These observations confirm the need for a better and more effective involvement of the academic community in the process of rooting their teaching in the local and regional context(s) (Salama, 2011). This involvement should go far beyond the phrasal declarations in the institutions' missions, visions and philosophies. It should also seek to address these issues in the teaching as well as in the research. *"The transplantation of foreign models may provide technical expertise, a valid tool for use in the practice of architecture anywhere in the world, but*

Therefore, Al beit is the place where one stays, spends the night, finds refuge and protection. By understanding this profound meaning of the term that everybody uses mechanically every day, an architect can define the major part of the program of the house in UAE and Arab culture. He needs for that to be prepared to such concepts and approaches in his studies.

definitely it does not provide the requisite expertise within a country and a culture” Özkan, (1986).

4.4 The criticism in architecture

Tremendous efforts have and are being deployed by some non-profit foundations with the aim of encouraging and increasing the international visibility of projects culturally related and representative to their context. Examples of such foundations are:

- Arab Cities Organization in Kuwait,
- The International Committee to preserve Islamic Cultural Heritage for Istanbul and Riyadh,
- The Organization of Islamic Cities and Capitals in Jeddah,
- Most importantly the Aga Khan Trust in USA and Switzerland (Özkan, 1986) and its platform on the web (www.Archnet.org). This is a very precious resource for teaching and research to be mentioned in such a study, especially due to the online availability of its digital library' documents and several archives and databases. In spite their limitations, such initiatives have revolutionized the architectural discourse and their collective impact is regional as well as international.

Apart from these initiatives and the publications and researches they initiated, extremely few publications are dedicated to the presentation and critique of contemporary architecture in the Arab and Islamic regions. Even when they exist, their content is dominated by international projects made by the “star architects” and multinational firms, very far from the Arab and Islamic culture and lifestyle. Indeed, it is stunning to see in a book like “Architecture in the Emirates” (Jodidio, 2007) that all the presented projects were either designed by multinational firms or by a "star" architect as identified by its editor, Philip Jodidio. And of course, the majority of the presented projects don't have any cultural reference whatsoever to the local context of the region they have been built in (Figure 2). Further research is still required to better expose and study the way culturally anchored architectures are presented in architectural journals and magazines. Do we

speak about such experiences at all in this "star system" that dominates the architectural media (Hilde Heynen 2012)?

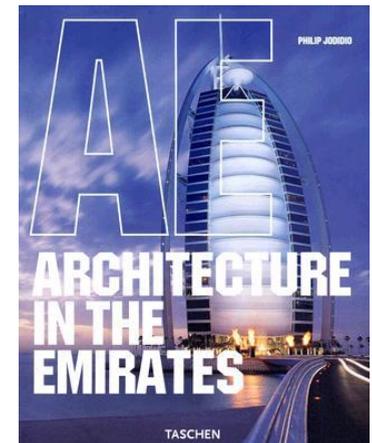
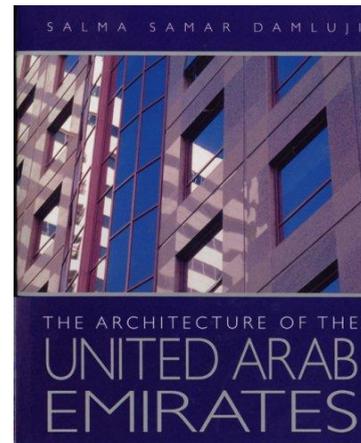
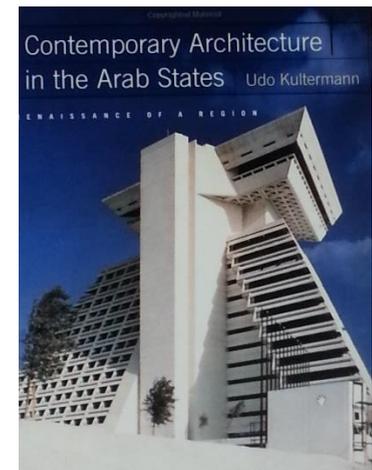
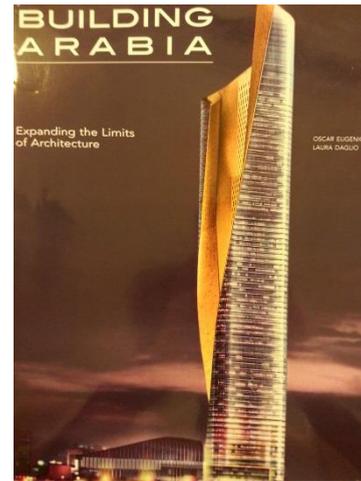


Figure 2: some recently published books featuring what is wanted to be contemporary architecture in the Arab-Islamic regions

4.5 *The professional practice of architecture in UAE*

Universities in UAE are producing graduates in Architecture, but the profession is still heavily practiced by expatriate architects, graduated and licenced overseas. Not to mention the “star” architects who were recruited to design the multiple “iconic” buildings that make the “fame” of the country. In such context, it is legitimate to wonder how could local architects, formed in local universities, have a place or a status in a country widely open to international expertise and in the absence of any board that protects his/her labour rights?

It is known that the strength of architects’ status stems mainly from the strict control of the profession. And the strength of the professional organization depends on its control over the quality of the education that is put forth. In fact in UAE there is no established “architects’ board” where the graduate could register his/her degree and get his/her license from. There is no control mechanism over the architect qualification. The state offers the education as part of its responsibility, but there is no body for assessing the quality of the product and its alignment with the country's needs and context (Benkari & Boudidah, 2011). The state, by definition, cannot critically assess what it offers (Özkan, 1986).

We don’t have accurate statistics about the number of architects graduated from UAE universities, nor do we know how many of these graduates do really work in the field or in any peripheral sector? What is the participation rate of UAE educated architects in this building production that the country is witnessing and that is rated among the highest in the world? And does this building boom address the most important needs of the society in a sustainable manner? An assessment of the standards of education in UAE in coherence with the local conditions and needs is crucial. A powerful body that regulates the professional practice and its specificity in UAE is highly required. This body would also orient education in this field, as well as the different sectors where an architecture educated person can work even if s/he does not have the wish or the ability to be an architect.

5 THE OPPORTUNITIES OF ARCHITECTURAL EDUCATION IN THE UAE

5.1 *Increasing aspiration for a value-based architectural education:*

There is a growing consciousness about the need for cultivating a value based and authentic identity that is strong enough to prevail in an increasingly globalized world. "... *Architectural education cannot be value-free. Who we are individually, who we are culturally, is part of the equation.*"(Kostof, 1986). After a long period of complete submission to the "Western" and "eclectic" identity in architecture, and as a reaction to an almost eroded personality of the cities in the Gulf, this consciousness seems to reach both the "intellectuals" and average people in these societies. It is the right time for architects, researchers, and educators to seize this opportunity to fulfil this societal need to cultivate a proper identity in their built environment.

As mentioned earlier, the teaching of architecture in UAE is administered following international standards. Thanks to a regular local and/or international accreditation process, all investigated programs have courses that are taught following well-articulated syllabi, with portfolios, students' surveys, instructors' reports etc. This rich material would document and inform the reflection on the courses and programs in the view to adjusting them to the local needs while following the international standards in the same time. From this perspective further Research are still needed to investigate the courses' contents as well as the instructors' strategies to address the cultural context in their teaching and how this is reflected in the students' learning outcomes.

5.2 *New opportunities to develop a culturally rooted architectural education, practice and critique*

UAE and the Gulf region in general is attracting more and more researchers and educators with Arab and/or Islamic back grounds. Most of them have been formed in the "West" following the highest standards of teaching and

research rigour. They master two or three languages, and adhere to the same values prevailing in the Gulf and the rest of Muslim majority regions in general. They are potential key role players in the development of more appropriate resources of teaching architecture in such contexts. They represent a valuable opportunity for the translation and transfer the knowledge produced in the “West” to feed the development of a culturally rooted architectural education, practice and criticism (Ahmad, 1986) (figure 3).

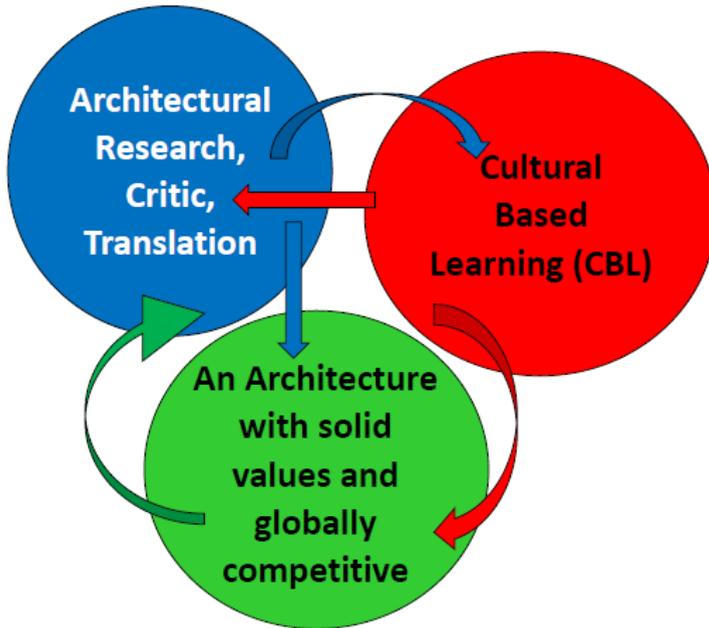


Figure 3: A conceptual diagram translating the Authors' understanding of the relationships between architectural critic/research and the cultural based learning in the development of a value driven architectural practice

6 Concluding thoughts: A culture based pedagogy to strengthen architectural curricula in the UAE

This paper presented an overview of the architectural education in UAE, through a representative number of local programs. It revealed the major characters of this educational system and the deficient integration of the cultural references in these programs. A deficiency that is echoed by a built environment and an "architectural language" weakly related to the local and regional cultural context. Based on the available literature about the subject, this research tried to highlight some parallels with the architectural education in neighbouring countries and established that the UAE shares most of the challenges and opportunities in this matter.

The article also addressed a number of real opportunities offered to those who aspire at the development of a contemporary architecture in the UAE and the region that draws its identity from the classical Islamic and local architectures. Even if this endeavour is not simple and would take time and tremendous efforts to be achieved, it could be started with a better integration of local references in architectural education. The academic community active in this region should get involved in the development and implementation of this "culture based learning" to provide the future professionals with more appropriate tools to realise coherent contextualized interventions. For this purpose, some important issues should be considered as a priority:

- It is crucial to equip prospective architects with the appropriate knowledge to address people's needs and integrate their architecture in its cultural, socio-economic and environmental context. This will be possible through a systematic integration of History and Criticism in the architectural curricula (Kostof, 1986) and in the composition of the studio activity itself (Salama, & Abdelgader, 2005).
- More concerted effort is required in research, practice and education alike to achieve the integration of local cultural content into architectural curricula. We should acknowledge all the initiatives in this matter even if they are still fragile and scattered. Studying these experiences, their resources and methods, through focus groups, interviews with local educators and architects (including employers),

will help to propose new courses' contents, textbooks and references appropriate to the local needs.

- It is impossible to think an architecture exclusively based on regional traditions and eliminate the influence of international development. However, promoting the image of a "culturally anchored" architecture in the UAE and the region is of a paramount importance to generate new ideas and concepts for a "local" contemporary architecture even if it has to first pass by a period of "Glocalization" (Salama, 2001). Along with the improvement of the formation of architects, this promotion could be done through, real architectural Criticism, competitions and awards that increase the visibility of creative projects that reflect coherence with the local context and fulfil the users expectations and needs while taking advantage of the technological advancements.

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