



6th International Forum on Engineering Education (IFEE 2012)

## The “Sustainability” Paradigm in Architectural Education in UAE

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### Abstract

Sustainability has become among the major concerns of UAE policy in city planning and development since the adoption of Abu Dhabi master plan 2030, the inauguration of Masdar city and university and the launch of “Estidama” program and regulations. However, this subject (sustainability) is still looked at as a facultative matter to be included in the architectural curricula taught in the country. Testing this hypothesis required tracing this paradigm in all the architecture programs offered in UAE. An investigation of the eight curricula was conducted based on literature reviews and preliminary content analysis of the online and printed prospectuses. This exhaustive study revealed that the concern about sustainability is clearly expressed in the large majority of these institutions’ official literature. However, most programs courses addressing this paradigm have not reached mature level yet. On the other hand, the results of this research comfort the previous assertions expressed about architectural education in the Arab and Islamic regions and even in most countries of the world, that sustainability is not or rarely introduced in the several studio courses that are the spine of any architectural curriculum. This is due to this persistent discontinuity between the studio and the other “theory” or “engineering” based courses included in the program. It is also the result of the slow integration, by the studio teachers, of the paradigm of sustainability as central factor in the constitution of the architect of today and tomorrow. The paper concludes by a prologue for the future of the UAE architectural education, arguing for a real integration of “sustainability” in the curricula and in the studios teaching practices with its adaptation to the norms defined by the local context and culture.

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Selection and/or peer-review under responsibility of Professor Dr Mohd. Zaidi Omar, Associate Professor Dr Ruhizan Mohammad Yasin, Dr Roszilah Hamid, Dr Norngainy Mohd. Tawil, Associate Professor Dr Wan Kamal Mujani, Associate Professor Dr Effandi Zakaria.

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*Keywords:* Sustainability; Estidama; architectural education in UAE; Masdar city; built environment; academic accreditation.

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## 1. Introduction

More than a decade ago, a new way of thinking the built environment has emerged in the discourse and the practice of architects, urban planners and other actors in this field. This new paradigm emphasizes essentially the concept of "SUSTAINABILITY". The understanding and implementation of this concept must become the aim and the perspective of architectural education worldwide. Starting from this standing point the question addressed by the present research is: **did the architectural educators and education systems change their teaching subjects and methods to integrate the sustainability concern?**

Within this article's context, sustainability is defined as being the state where all humans, now and in the future, are able to enjoy a decent living standard in the limits of what nature can continuously offer without jeopardizing natural resources or other forms of living. Therefore, SUSTAINABILITY is a concept that contains an economic/environmental as well as a cultural and social component. The present research attempts to reveal the trends in architectural education related to the concept of Sustainability thus defined. Previous researches have in fact demonstrated that during the last decade, there have been quite important changes and transfers in the architectural education contents [1]. These changes have been essentially provoked by the introduction of Computer Assisted Design (CAD) in the profession and thus in the formation for this profession. The new perceptions of what is Sustainability, the respect of nature and its resources have also affected the architectural education contents.

## 2. What is sustainability?

The definition of "Sustainable" is the character of what lasts. Sustainability means "related to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged" (merriam-webster.com). If we examine the recent debates about the concept of "Sustainability" we can observe that implicitly in these debates, there are critics of the values, attitudes, tools and processes the produced and prevailed in the built environment industry. This situation generated a social alienation and a dilapidation of most of the natural resources. These opinions critics have given the sense that we understand nowadays of "SUSTAINABILITY". While certain definitions emphasize the environmental criteria [2,3], others consider that the very meaning of "SUSTAINABILITY" should not and cannot be understood without its sociocultural dimension [4]. In the Rio declaration, sustainability has been given the meaning of preserving the natural resources while improving the quality of life and offering to the future generation opportunities at least as equal to those that actual generation are enjoying. The international Congress of architects (1993), confirms this principle when it mentions that all humans are socially, culturally and economically interdependent. In this context, sustainability requires partnership, justice and fairness between all parties.

Sustainability is defined as being a development process that satisfies the present generations' needs without compromising the possibility of future generations to satisfy their own needs. [5]. Since this definition is quite general, it is necessary to elaborate it dwelling on the literature published on this subject [6,4]). The concept of sustainability is based on the principles of self-sufficiency for the satisfaction of the basic needs with an emphasis on the quality of life. From this definition, one can identify two major targets for sustainability:

- Ecologic and socio-economic
- Ecologic limits to be imposed on the resources consumption while feeding a qualitative development for societies and individuals.

The implication of these objectives in ecologic, socio-economic and cultural terms in the fields of architecture, urban planning and built environment production and management must generate solutions essentially based on

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