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ETHICS FOR ARCHITECTURE:
Imperative Approach for Integrating Sustainable Thinking in Design Education

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Abstract:

*"It is through my actions that I commit myself to values not
through principles I accept or rules imposed upon me ..."*

Robert Solomon, 1977

Sustainability, as introduced in our architectural education programs is limited to single courses in the senior years, and/or associated with building courses, or belittled to trendy statements and fashion slogans in theory courses. Rather, sustainability should be regarded as an ethical paradigm rooted in the habits and traits of our young students.

This paper argues that education for sustainability calls for determining basic ethical concepts to be embedded within the introductory courses of the curricula. It aims at drawing a link between ethical reasoning attributes and key issues of sustainable thinking in design.

The methodology is based on determining basic principles of sustainability, while exploring ethical attributes to be incorporated as learning paradigm. Then, a closer look at introductory courses takes place, arguing their viability for implanting the principles of sustainability as a thinking paradigm for young students. The paper ends up by proposing a conceptual framework for planning introductory courses of architectural education, where ethics for architecture are implanted as imperative for sustainable thinking in design.

Key words:

Ethics – Ethical Reasoning for Architecture- Sustainable Thinking in Design

Introduction: Sustainability as Ethical Value . . .

A content analysis of the literature on sustainability as well as the studies that examine how is "sustainability" as concept is dealt with in our schools of architecture -locally or in the Middle East and North African region- has been undertaken. Regretfully, the analysis affirmed that the concepts of sustainability are still crawling in their birth phase. This indicates that the architectural community - academics and practitioners- is still way behind the realization of the essence of sustainable practice and development. There are two negative resultants out of this:

The first is that the terms of sustainability; sustainable development; sustainable design, green architecture; green design; ecological design, etc, are terms that are not likely to appear in course titles or course descriptions¹. A feature that results in marginalizing -not to say trivializing- sustainability concepts with only reference to mere building construction concerns, reflected with reference to technical aspects of the western world and a few pioneer trial and error experiments of some local architects. The result of which is the association of sustainable design with only climatic and technological (including building economic) aspects.

The second is that when a philosophy or a course description reveals an emphasis on relating design artefacts to the physical environment and human resources, it is belittled to some remote courses in the senior years, courses that address appropriate building technology; vernacular architecture; organic theories; or spontaneous architecture (without architects) in rural locale. Sustainability concepts in such courses are presented in a rather pragmatic human-cultural response to natural tenets, where human-cultural building tradition is a reign. The result of which is the association of sustainable thinking with spontaneity and incivility, as if the socio-cultural dimensions are restricted to slight special groups design projects.

Since architectural education is regarded as the manifestation of the ability to conceptualize, coordinate and execute the idea of building rooted in the tradition of humanism², therefore, it is an education that is supposed to be decentralized and democratic, socially and culturally. It is thus supposed to reflect the diverse reality of human affairs and the tapestry of life. Economically, it should adopt the premise that economy and ecology are both essentially to do with the flow of energy and materials through a system and that value is a social construct³. Thus, Socio-cultural aspects are to be integrated with environmental and economic and building technological dictates for defining sustainable design thinking in architectural education.

Based on the preceding, it is argued in the inappropriateness of the two above mentioned dominant approaches in dealing with sustainability in our architectural programs. **And it is claimed that sustainable thinking has much more to do with the supreme and foremost objectives of design education. And that sustainability as a concept should become focus and goal of architectural education world wide.**

Education for sustainability, therefore, implies the acknowledgement that the architect's fundamental responsibility is an ethical one. It is to create environmentally responsive designs, creating connections between people and between people and aspects of place. Hence, his responsibility is to pursuit balance in man's life by working for justice towards natural environment, for the good of all, with long term perspective. This demands a deep understanding of a set of perceptual and analytical abilities pertaining to ecological wisdom and practical means essential to create things that would fit a triplet

^{1,2,3} *XX UIA Work Congress, Beijing (1999)*. Architectural Education Work Program –African Region (V). **Draft Document on Architectural Education in Africa and the Middle East**. A joint UIA/AUA Publication. & *Salama, M.A. (2002)*. **Environmental Knowledge and Paradigm Shifts: Sustainability and Architectural Pedagogy in Africa and the Middle East**. In: *Architectural Education Today – Cross Cultural Perspectives*. Salama, A., William O., Kaj, N.

system of social, economic and environmental attributes⁴. Such understanding would thus nurture the values that would permit and promote new architectural ethics.

Ethics as Means of Reasoning . . .

Being "ethical" is more than the mere knowing of rules of developing and maintaining an ethical state of mind. It is linking values to human conduct, seeking to distinguish right from wrong, proper from improper, and good from bad. Ethics is concerned with how our applied thought, manifested conduct, and realized action affect others, directly or indirectly. This demands that we make a conscious effort to perceive, to assess, and to reconcile the many competing and often conflicting ideas or ways, through the reasoning and weighing of options, and through our belief that we are ultimately responsible for our deeds and decisions. That is to say, valuing or placing the higher public interests ahead of one's own. In other words, it is to achieve the greatest number and most far reaching and long lasting benefits from the decisions and recommendations made, while reducing or eliminating the negative impacts that might arise⁵.

In "Nicomachean Ethics", Aristotle stated that moral goodness is the child of habit, from which it has got its very name - (ethics, derived from *Ethos=habit*). This is an indication that none of the moral virtues is implanted in us by nature, since nothing that nature creates can be taught by habit to change the direction of its development⁶.

Ethics is also defined as the world of obligation in which human discretion plays a part, the world of "ought" and "should". At its most emphatic it is the world of "must", of dictates of behavior by which discretion is nearly eliminated. The nuances of meaning attached to "should" and "ought to" arise from a sense of "duty", whereas those of "must", "will", or "shall" arise from a "resolve", or determination to effect some state or stance, and are usually accompanied by the power to carry that resolve. An "ought" carries an imperative, a plea to act in the best interest of who-ever or what-ever is mandatory, unlike "will" or "shall", backed up as they usually are "bylaw" in one from another⁷. Obligations generally are a matter of both of professional and personal history, personal selections from an historical array of matters communally agreed by virtue of actions and stances already taken. But specific obligations at any moment are adduced from among whatever matters, from the past to that moment, have not been superseded or removed from our province (that is bylaw or industry standard)⁸. Hence, obligations are as numerous as human ingenuity may wish to conjure, and as human conscience may wish to bear. **Ethics thus resists all claims to naturalism or inevitability; it is a world entirely constructed from human intelligence through human interpretation for human application⁹.**

Ethical Reasoning for Architecture . . .

Architecture, like any other professional field, can be defined in terms of ethics that are embedded in the habits of its practitioners as manifested in their works. From this perspective, and according to Watkins, there are three explanations for architecture, an English view, a German view and a French view. *The first English view* sees architecture as instrument for the attainment of social policy

⁴ *El-Nachar, E & Safey Eldeen H* (2003). **Experiential Learning: A Paradigm for Sustainability-Oriented Architectural Education**. UIA Architectural Education Commission -- 1st International Conference. Architectural Education for the New Millennium: Issues, Innovation and Traditions. Bibliotheca Alexandrina, Egypt, March 2003

⁵ *Johnson, P.A.* (1994). **The Theory of Architecture: Concepts, Themes & Practices**. Van Nostrand Reinhold.

⁶ *Aristotle*. **The Ethics of Aristotle: The Nichomachean Ethics Translated**. Translated by J.A.K. Jackson. London: Penguin Books, 1955

^{7,8,9} *Johnson, P.A.* (1994). **The Theory of Architecture: Concepts, Themes & Practices**. Van Nostrand Reinhold.

employed to achieve supposedly "moral" ends, and also as something truthful from which it follows that "it must be immoral for it to tell a lie". The *second German or "Zeitgeist" view* is that architecture is an expression either of a temporal "collective unconsciousness" or of a "will" that exists independent of the individual design and therefore regards morality as pertaining to collective rather than individual endeavor; hence, it favors the classical vision of types, standardization and mass-production. *The third French view* sees architecture as a dutiful and sincere expression of purpose (program) and structure "the natural outcome of a rational intellectual discipline"¹⁰. **Ethics for architecture, accordingly, becomes what architects choose it to be rather than what it is willed to be as an absolute duty.**

Such understanding is envisioned as ethical reasoning attributes that should be incorporated as learning paradigm, and on which the ultimate objective of architectural education should be centered on. The importance of which is the development of knowledge that leads to a higher quality of mind and being of students, and which also exemplifies how maximum freedom prescribes maximum responsibility. Here, it is argued that in architecture educational programs, a need exists for varied and non uniform sets of values and ethics for which culture biodiversity can claim a rationale. New values must very carefully connect to existing values; three dimensional; rather than flat. It is conceived as a puzzle that's ever changing and where the pursuit of the solution lies within. **The Effectiveness of an educational program should be assessed in terms of the "qualities" of mind students have when they graduate.** These qualities include: attitudes like patience; tolerance, empathy and respect; the capacity to see the long view; critical, creative, and constructive thinking; flexibility, openness, self confidence, and curiosity; and the ability to communicate, interact with, and empower colleagues and the community¹¹.

Ethical reasoning for architecture calls on some fundamental changes towards sustainable thinking in architectural education. Such changes are envisioned as an ethical base for the profession that needs to be defined and commonly shared among educators and introduced to students. These include: 1. Bridges within the profession that link education and practice, including a profession-wide commitment to life-long learning; 2. Knowledge about sustained economic viability; and 3. Scenarios for alternative practice, acknowledging failures of current configurations of practice and looking at workable models for interdisciplinary professional work¹².

Reasoning as Means of Sustainable Thinking in Design . . .

Undoubtedly, sustainable thinking in design should be strongly linked to the way of thinking and managing of human activities and its impact on natural systems. In the meantime, the concept of throughout lives which is raised by sustainability is a fundamental aspect of design thinking¹³. **Accordingly, sustainable thinking draws essential attributes on components of education and knowledge for design, where attributes of sustainable principles should be framed by the expected role of architecture and architects in order to identify key issues for the content and the structure of design education.**

A definition of sustainable design suggests that is a discipline where people and nature meet, art and science join and where society and technology integrate. Therefore, sustainable design is clearly not

¹⁰ *Watkin, D. (1977). Morality and Architecture: The Development of A Theme in Architectural History and Theory from the Gothic Revival to the Modern Movement.* Chicago: University of Chicago Press.

¹¹ *Johnson, P.A. (1994). The Theory of Architecture: Concepts, Themes & Practices.* Van Nostrand Reinhold.

¹² <http://www.bsu.edu>

¹³,¹⁴ *El-Nachar, E & Safey Eldeen, H (2003). Experiential Learning: A Paradigm for Sustainability-Oriented Architectural Education.* UIA Architectural Education Commission -- 1st International Conference. Architectural Education for the New Millennium: Issues, Innovation and Traditions. Bibliotheca Alexandrina, Egypt, Mach 2003

the work of a single individual - though designers can certainly lead the way. Sustainable design necessarily calls on the knowledge and skills of many people: architects, landscape architects, planners, scientists, artists, engineers, social scientists, as well as those affected. It is a team effort, truly interdisciplinary in applying collaborative processes¹⁴.

Sustainable thinking in design, therefore, is a set of perceptual and analytical abilities, ecological wisdom and practical means essential to create things that fit in a complex of systems: social, economic and environmental¹⁵. **Reasoning becomes the means of respect to sustainable concepts as it is the process of conceiving and shaping complex systems**¹⁶.

Sustainable Thinking: A Paradigm for Beginning Architectural Education

. . .

Sustainable thinking, therefore, is simply a paradigmatic thinking approach that is to be implanted as pivot of architectural education and utmost objective of its learning outcomes. This implies that **a manifestation of sustainable thinking as a learning paradigm is to be demonstrated since students' early enrolment from the onset.**

Paradoxically, some educational critiques affirm that -almost everywhere- there are some assumptions about the nature of beginning architectural education with implications that constitute a series of "curricular fallacies", pertaining to the objectives, orientations, contents and pedagogic models. Such fallacies include "basic design fallacy", "linear complexity fallacy", "primitivist fallacy", "professionalist fallacy", "curricular circularity" and "creativity fallacy"¹⁷. While the detailed explanations of the preceding fallacies go beyond the scope of this paper, yet, it is argued that such fallacies are by no means the preserve of architecture or architectural education. So long as the objective of the introductory courses is seen as little more than preparing students for a more serious (i.e. professional) future and so long as the very limits of professional practice in responding to real urban, environmental and cultural issues are not admitted, those fallacies are likely to continue. Rather, the introductory courses can be both creative in a broadminded way and responsibly mindful of the increasingly complex, contradictory and conflictual world, and the upper years can be both professionally rigorous and intellectually adventurous. **It is asserted that the introductory phase of architectural education is likely to be the most suitable for challenging young students' acknowledged wisdom.** Hence, it is severely urged that we must attempt at reformulating the beginnings of architectural education with honesty and rigor.

Contradicting with the preceding educational attitudes, sustainable thinking is to be addressed in the beginnings of architectural education, regarded as a consensus that is based on the following considerations: *What is happening in the real world? What are the enduring positive aspects of architectural education? What are the critical perspectives of architectural education? And what could be the speculations on what is possible in architectural education?*¹⁸ The honest answers to the preceding questions are undoubtedly to lead towards the replacement of curriculum from promoter of linear thinking to advocator of cyclic thinking. Reflecting on beginning students, a paradigm shift is

¹⁵ <http://www.bsu.edu>

¹⁶ Prewitt, K. (1998). **The Critical Path: Linking Knowledge to Advance Environmentally and Socially Sustainable Development.** In: **Organizing Knowledge for Environmentally and Socially Sustainable Development.** Proceedings of a Concurrent Meeting of the Fifth Annual World Bank Conference on Environmentally and Socially Sustainable Development, **Partnerships for Global Ecosystem Management: Science, Economics and Law.** The World Bank Washington DC., U.S.A.

¹⁷ Teymur, N. (1993). **Intiation Myths & Curricular Fallacies. Or How (Not) To Begin Learning Architecture.** In: **Beginnings in Architectural Education.** Proceedings of the ACSA, EAAE Conference, Prague.

¹⁸ Johnson, P.A. (1994). **The Theory of Architecture: Concepts, Themes & Practices.** Van Nostrand Reinhold.

urged to take place, in which fallacies of "where to begin architectural education" are altered by educational methods that are based on knowledge integration that mirrors economic, social, political, ecological and technological realities, as well as the diverse requirements of human society.

Like so, **It is urged to reformulate the current curricula, with regard to developing students systems thinking, and aiming at refining the qualities of mind of the future architects, in which interactive education is demonstrated at its utmost level, and whose knowledge base is founded in the grounds of many disciplines as possible.** Achieving such curriculum reformulation, there are a set of recommendations envisioned as imperative. On top of recommendations is a shift in attitude upfront to include sustainability in the architectural schools mission statements and that include the following¹⁹:

1. Measuring existing curricula pertaining to sustainability against qualities/abilities in our students, while reconsidering goals and roles for architectural graduates within a broadened view of the profession.
2. Destroying the boundaries between the lectures and the studios and the built environment, while re-examining the physical environment for learning for its suitability to sustainability.
3. Acknowledging the curriculum as one phase in life long learning, while at the same time acknowledging "real world" as a base for the curriculum.
4. Establishing courses for introduction to the profession and to design in which sustainability is foundational, while promoting inclusiveness as part of the profession's definition, that is, a profession that is non-hierarchical, has a common core, and embraces social equity.
5. Acknowledging the definition of an architect from the sovereignty of the individual designer to comprehensive environmental understanding, while advocating students to be good colleagues/citizens as well as shifting in the paradigm of a teacher towards a facilitator/participant in the educational process.
6. Acknowledging that building is only a tiny increment in the history and future of the environment, while redefining the practice of architecture to include sustainability in the health, safety and welfare of the overall built environment.

Ethics for Architecture: Imperative Approach for Integrating Sustainable Thinking in Design Education . . .

The preceding argument validates that sustainable design is centered on the idea that architecture is known not only by what it appears to be, but by what it does and the responses it makes to its environment. According to Fathy, every ugly or senseless building is an insult to the man passing in front of it. Every building should be embellishing and adding to its culture²⁰. Concomitantly, sustainable thinking in design education is centered on the ethics of architecture that the architects undertake as responsibilities during practice: responsibilities to society and to their fellow architects²¹. Therefore, and to effectively integrate sustainable thinking in design education, an ethical base for the profession needs to be defined, commonly shared, and include sustainability to demonstrate the profession's commitment to societal needs. This signifies that dramatic changes in the ethics and value system are to be tackled in the curriculum design, aiming at preparing future generations be acquainted with these changes is an essential demand at both local and global levels. It is further claimed that **the profession will *only* have eminence when it takes an ethical position as responsibility towards designing responsive environments.**

¹⁹ Based on **AIA/ACSA Teachers Seminar**, Cranbrook Academy, May and June 1994

²⁰ Hassan Fathy, quoted in *Charles, Prince of Wales*. (1989). **A Vision of Britain: A Personal View of Architecture**. London: Doubleday.

²¹ *Allsopp, B.* (1977). **A Modern Theory of Architecture**. London: Routledge & Kegan Paul

Accordingly, three major tasks could be identified as follows:

- Developing a sense of common bonds, the challenge for not only focusing on technical excellence, addressing and advising on repeat issues, but to nurture the values that will permit and promote a new global ethic.
- Efforts should be made to enable students to bridge the divisions that exist for purposes of identity only, nor for different treatment (the dividing lines of gender, income level, religion, specialization, profession).
- Emphasis should be placed on commonality and cooperation rather than separation and isolation²².

A conceptual framework for curriculum centered on integrating ethics as approach for sustainable thinking in the introductory courses of architectural education can now be prescribed. Such curriculum is unquestionably to address how architects must interface and influence the man-made world and design integratively with the natural environment. I e , **a curriculum that is to promote for an environmental designer's ethics and values**, and that would engage in²³:

- Questioning society's knowledge maps.
- Taking responsibilities for delivering outcomes.
- Distributing opportunities equitably.
- Learning from alternative voices new and healthy ways to change the culture.
- Enabling new sustainability-related habits of mind and being.
- Overcoming resistance to change.
- Creating agents of change.
- Subverting habitual ways by challenging power and authority.
- Enabling civic gathering.
- Having inner security prowess and courage.

Seeking for putting the preceding considerations into practice, it is suggested that **a deep curricular examination is to immediately occur in our schools of architecture that would be honest and rigor**. As for reformulating the curricula, the following are a few recommendations towards building new curriculum hypothesis²⁴:

- Promote curricular reform that articulates an ethical base (of which design may be a part).
- Establish an Internet clearing house of exemplary syllabi that address an ethical base.
- Overcome the fear of a tyranny of dogmatic values.
- Look for links among interest groups and areas.
- Define "environmental ethic".
- Find ways to infuse an environmental ethic and being in balance in the arch-curriculum, the act of making things, and the telling of stories.
- Examine cognitive processes – look at our ways of thinking, do not rush to agree on our thinking.
- Reconstruct the construction process. Continually mindful that the right to build carries responsibility.
- Implement curricular reform based on shared values.

Conclusion:

²² *El-Nachar, E & Safey Eldeen H (2003). **Experiential Learning: A Paradigm for Sustainability-Oriented Architectural Education**. UIA Architectural Education Commission -- 1st International Conference. Architectural Education for the New Millennium: Issues, Innovation and Traditions. Bibliotheca Alexandrina, Egypt, Mach 2003*

²³ & ²⁴ Based on **AIA/ACSA Teachers Seminar**, Cranbrook Academy, May and June 1994

Architecture, like any other professional field, can be defined in terms of ethics that are embedded in the habits of its practitioners as manifested in their works. Factually, ethical reasoning in architecture is the foundation of sustainable design. As previously mentioned in this paper, it is a concept of "throughout lives" that targets a higher quality of mind and being, supports the relationships between nature, man and the resultant built environment. Such concept would undoubtedly result in a system that would safeguard life, individuals and cultures so that they –altogether, can continue, develop and flourish.

Moreover, and based on the fact that the whole humanity is the client for sustainable design, it is avowed that **defining ethics for architecture is key for integrating sustainable thinking in design education**. Accordingly, a re-orientation of architectural education is beseeched. Such re-orientation is to address the notion that values of buildings lie in the relationships between the process, the product, the users and environmental context. Many kinds of architects are expected to come out of such interdisciplinary re-orientation; architects/urbanists working on a very large scale; others work on buildings; and some work on the design of product. A wider range of design problems will involve collaboration with people of different disciplines at a broader range of scales.

Concluding, it can be asserted that -and from the onset- students of architecture should be introduced to sustainability as a thinking paradigm that has nothing to do with fashion or trendy statements. A paradigm that would primarily evoke the following question: **How to prepare young students – future architects- meet the enormous responsibilities required for achieving a responsive design work?** The answer to this question is likely to draw essential ethical responsibilities on architects, and to promote for justice towards the natural environment, towards the different groups of society, and towards the good of all with long term perspectives. That is to say: "*an architecture for all*".

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