

Interdisciplinary Urban Design: Toward Egyptian Manifesto

Abstract—This article focuses on the field the art of the city, at the beginning of the third millennium, in the 21st century. It seems that a few Egyptian architects suffer from the lack of the ability to create and share knowledge in their field of proficiency. The assumption is that this weakness is the main reason that led to the invalidity of the local theorizing process. The presupposition is that the absence of respecting the conceptualization of enlightenment during the two phases of preparing and teaching the educational programs makes the students urban design projects not well designed. This paper submits an Egyptian Manifesto, to formulate some guidelines for the development of the work of some researchers, scholars and specialist's method.

Keywords—Egyptian Manifesto, Knowledge, Urban Design.

I. URBAN DESIGN DISCIPLINE: THE FACT OF THE PRESENCE IN EGYPT

Few members from the different groups of Egyptian architects suffer from the assumption of what can be known as 'Intellectual Illiteracy' in the realm of urban design. To achieve this intent, the capability to take advantage from self-criticism techniques must be inquired. Moreover, identifying the measurement of the intellectual ability and use it to be the integration between the school of education and learning experience through practice. Additionally, it is linked to ignoring the use of the traditional historical European and American intellectual paradigm shifts. Also, this ignorance includes architectural community movements, which obtained theories, approaches, trends, principles, methods, and techniques which nobody takes any advantage of. Mostly, this weakness and ignorance accumulate and occur while the students are studying in the three cycles of higher educational stages: undergraduate, graduate, and postgraduate studies. They led architects to present a written intellectual production fragile, which has been apparently observing in poor architectural characteristics in the current urban status quo. Notably, according to the previous views, cognitive weakness is caused by the absence of quality or the lack of enlightenment and the expiration of controversy around any architectural work. With respect to all these reasons, that weakness may be twofold: first, the failure of the current method of education, which ignores the importance of studying history and theoretical knowledge and underestimates the benefits of philosophy (as a form of thinking) deliberately or as a result of a lack of knowledge (out of ignorance) and second, the failure of not using a learning methodology of interdisciplinary urban design that helps to improve thinking and solve the complex urban problems. That methodology that supposedly helps improve the way of

thinking and understanding and solve the complex urban problems ignores the synthesis of different disciplines in the same field. That is what the current field of competence needs to confirm: that treatment must be at the level of the role models. Where the field of interdisciplinarity is always "a site where expressions of resistance are latent. Academics are locked within the specificity of their field. And the first obstacle is linked to individual competence, coupled with a tendency to jealously protect one's own domain. Specialists are often too protective of their own prerogatives, do not actually work with other colleagues, and therefore do not teach their students to construct a diagonal axis in their methodology" [1, pp. 5-6]. That is what the current field of competence needed to confirm that the treatment must be at the level of role models.

At present, many commentators indicate that the urban design interdisciplinary not just interests of collecting own knowledge, or how sharing it to improve its products. However, also it should think about developed knowledge of disciplines that appears from outside the field. Urban design engaging with several fields of knowledge¹. In fact, "urban design can be a mechanism to develop the knowledge base of design and planning" [2, p. 54]. The word 'interdisciplinarity' uses in this work "to describe a far broader phenomenon, which extends across all sectors of society" [3, p. 8]. 'Interdisciplinarity' is the term means "how individuals work together towards end points decided through mutual consent" [4, p. 223]. As to see if the planning and design can categorized as a discipline, it should first define the concept of discipline. First as a fundamental element of teaching and learning in any cognitive field. Also, it describes the procedures that required from the professionals towards a particular person or group of people. Moreover, it considered as puts to all those involved in helping people to teach them how to protect themselves, the others and the whole world around them. Furthermore, it is "a branch of instructions; a department of knowledge." [5, p. 2]

The intent of this work is the enlightenment of the importance of learning knowledge in the field of teaching and learning urban design interdisciplinary. Furthermore, refutation about to how find the way that should urban design discipline taught. This way revolves around a proposal utilization a new concept in Architectural educational institutions, known as 'knowledge-based urban design interdisciplinary.'

Prominently, regarding the projects of the students in some of the urban design studios in the architectural departments, all questions revolve around the quality of the art of the city. This architectural quality usually based on valid and correct planning

¹ Moudon said; it is a "professional, perspective field drawn from a variety disciplines, and an inter-disciplinary approach to designing the built-environment through the integration of the planning, design and recently, landscape architecture professions" [44, p. 332]. Inam noted "urban design as an ambiguous combination of architecture, urban planning, landscape architecture, and civil engineering" [45, p. 14]. As Forsyth and Crewe (2009),

"urban design is one of the key intersection points between planners, architects and landscape architects" [46, p. 434], and, the openness of urban design on a variety of disciplines "offering significant opportunities for an evolving urban design knowledge" [47, p. 249]. Carmona said "urban design is in fact a mongrel discipline that draws its legitimizing theories from diverse intellectual roots, as well, wherever it can" [48, p. 2].

and design scientific knowledge among students, specialists, and professionals. Mainly, in return, without this knowledge, the result will be presenting projects free from the actual meanings, as well as the implications that based on the real knowledge. Always, this condition was caused as a result of the inability to take advantage of the urban design historical and theoretical paradigms (intellectual frameworks)². This paper assumes that the quality of the building of the city will continue to decay unless the professionals begin to enhance their efforts to valorize knowledge. What distinguishes this assumption is its ability to be a hypothesis, thus bearing falsifiability, as well as testability. It is necessary to emphasize that this statement in its current form is far from that understood as an alleged philosophical problem or even a pseudo statement [6, pp. 8-9]. This assumption highlights the main research problem that represents architectural ignorance. It is considered as a framework that tests the credibility of the hypothesis. Popper indicates that a hypothesis must predict a phenomenon or behavior and not just offer to explain or rationalize some natural phenomenon that is observed, taking into account the situations that falsify or eliminate the hypothesis. [7, p. 130]

This assumption focuses on interrelated issues, namely whether historical data, student knowledge, or the characteristics of status quo can be trusted as evidence to accept the conversion of the assumption of the hypothesis. Hence, the phenomenon here is the increasing of the intellectual illiteracy will increase the badness of the architectural status quo, and the behavior is 'do not care'. In This paper, intellectual illiteracy is considered to be the starting point to identify and understand the intellectual level of the students in the academic field of practice. The initial features of intellectual illiteracy could be shown through some of the cultural characteristics such as a low level of experience and skills; the inability to collect and analyze information and acquire knowledge; the inability to cross boundaries between the various types of knowledge; and the inability to understand the value of teamwork, togetherness in work, and the importance of collaboration between architectural disciplines, as well as the inability to agree Urban design is an interdisciplinary science in the architecture field. [3, p. 13]

The research problem is designed to clearly explain that the epistemic regress in the field of architecture represents, in our belief, the primary cause of worsening 'intellectual illiteracy' in the urban design interdisciplinary, particularly in the field of urban design. Notably, it is very necessary to note that 'intellectual illiteracy', is not a common terminology. In this work, intellectual illiteracy represents the lack of impairment cognitive abilities, and contrary to intellectual ability, it is not related to intellectual disabilities. The scientific importance is not only in the use of the latest intellectual paradigms but also in what is appropriate for our local circumstances.

² As Marshalla said; "urban design theories helps to justify urban design as a distinct intellectual discipline." [49, p. 258]. Krieger (2006) noted urban design emerged as a state of "urban mindedness." [50, p. 2]

³ The phrase ground reality means practical realities that exist even to this day. In this work, it means the context that includes everything that happens in

The contribution of this work centered around three fundamental issues. First is the recognition of the important role of creating and sharing knowledge used to enhance the products of the art of the city in the field of interdisciplinary urban design in educational or professional settings. Second is analyzing the current Egyptian status quo concerning the amount of knowledge in some architecture colleges. Consequently, it should distinguish between the acquisition of knowledge that accumulates through education and knowledge that is gained through training and experts. Third is how preparation for the knowledge creation process is the first objective for each professional practitioner. This work revolves around the assumption that there is a deficiency of knowledge in the majority of students at the Egyptian schools of Architecture, which seems clear during the last three decades. The assumption helps to provide an introductory target that allows searching about how to develop the students to become competent members of their community. It is followed by thinking of how to formulate an accurate definition of knowledge regarding interdisciplinary urban design, which helps to increase the students' knowledge. Moreover, this work aims to present appropriate criteria to measure the quality of knowledge. The first question in the methodology of this literature is 'Why this belief?' Hence, is this belief doxastic/justified? Moreover, is this belief based on facts, passing through inferential and situational justifications, or is it based on insufficient information?

II. THE PROBLEMATIC OF INTELLECTUAL ILLITERACY IN ARCHITECTURE IN 'GROUND REALITY'

This work discusses the problem of intellectual illiteracy in architecture in 'Ground Reality.'³ In the last few decades, at the level of research, the developed world has seen a significant theorization of urban design, and higher education in this field has expanded very vigorously⁴. If one reviews the curriculum or syllabus in most Egyptian universities and higher institutes that include departments of architecture, it is easy to find many urban design courses. Furthermore, several departments have emerged in both urban design and planning and Umran at the undergraduate and postgraduate level. In the developed nations, city planning has emerged as a separate discipline, along with architecture, planning, and landscape architecture, and intellectual endeavors have accelerated in the form of different paradigm shifts, as well as various intellectual movements and trends. On the contrary, in developing countries, with particular reference to Egypt, the art of the planning and design of cities suffers from a lack of epistemological theories and approaches. With the exception of a few attempts reliant upon American and European efforts, Egyptian attempts have remained at the level

metropolitan cities, towns, and suburban cities concerning the relationship between people and buildings. This issue focuses on the importance of major city sites, either known or unknown, in current Egyptian ideology.

⁴ Matthew Carmona in 2012 record that there are "70 universities with urban design programs are listed on just three English language websites." [51, p. 11]

of theorization, and few exist at the level of application⁵. This study is based on a limited survey conducted in the winter of 2015⁶. The survey aims to understand the essence and value of urban design. This survey-based evaluation's goals are to understand the essence and value of urban design discipline, either for students or faculty. The answers to these interviews discovered joint outcomes (findings and results) that are quite varied. The first group of both students and faculty members saw urban design as an inevitable science at the level of city building, rebuilding, and design. The second group saw urban design as merged in the present era (at the end of the twentieth century), not only as the end of urban design as a separate discipline, but also as finished in the developed world; it had become obsolete, and, moreover, it had little to no presence. Most of the students and faculty members had confirmed that there were no differences between urban planning and urban design. They also believed they were not separate areas of science; moreover, there was no benefit in urban design being an independent discipline. The third group, made up of faculty members, believed that there was an urgent need for urban design to become a multidisciplinary science. Also, it should take back its old title, of being 'the art of the city.' Since the mid-fifties, Shafiq Al-Sadr is one of the leaders who led efforts to support the teaching of urban planning in Egypt. In 1979, he was invited to establish an institute for teaching urban planning and housing beside the social sciences and technical studies. The concept of this institute is that the graduate certificate will be for a multidisciplinary professional practice. Consequently, it included several disciplines, such as architecture, planning, geography, and social and economic science [8]. Abdel Baki Ibrahim describes Shafiq Al-Sadr as the first Egyptian pioneer in the field of urban planning. He said, "Urban planning is no longer an individually architectural work, but it transformed to become a collective action, shared by a team of specialist in various architectural aspects." In the same document, in 1954, Dr. Shafiq Al-Sadr started his work to prepare the first master plan for urban planning in Cairo [9]. In 1965, Abdel Baki Ibrahim made the first attempt at opening the planning institute in Ain Sham University, but he did not succeed. For Ministry of Higher Education Quality Assurance Manual, architecture and urban planning disciplines (2009), in 1964, the first department for urban planning in the college of architecture was opened at Al- Azhar University. The study period became five years instead of two years [10, p. 8]. In 1977, Cairo University was opened as a regional and urban planning institute through cooperation between Egypt and Italy. It includes four departments: regional planning, urban planning, environmental planning, and infrastructure networks. Students can earn bachelor's, master's, and doctorate degrees in these specializations. During the 80s, the discipline of urban design was created in the college of architecture. In 1982, the first course of urban design began at Cairo University. After that, it was extended to the other colleges of architecture, such as the department of urban design and planning at Ain Shams University, which was established in 1987. Its title changed to

urban design and planning in 2004. In 1991, the department of urban design in the College of Regional and Urban Planning was established. At the beginning of the third millennium, Egyptian colleges and higher institutes of engineering were no longer devoid of an urban design curriculum. It moved to all schools and higher institutions of architectural engineering in Egypt. It became an independent discipline in the curricula of most colleges. Initial, advanced, and elective courses were offered, both at the undergraduate and post-graduate levels. It can be argued that the last 30 years of the last century was a period in which the high value of urban design emerged. It has expanded to the master's and doctoral programs in an unprecedented way. Some concepts of teaching and learning urban design that came in the questionnaire were tested by Hisham Abu Saada (2015). The questionnaire consists of five main items that focus on: I. What is the extent of acceptability of urban design as a discipline or an independent science? II. What about the confusion and overlap between urban design and other specialties? III. What is the extent of the depth of understanding of the historical and theoretical paradigms? IV. How is urban design seen? Is it a systematic process or a final product? V. What is the extent of acceptability of urban design as an interdisciplinary and integrated field in architectural practice? The results were mostly identical for most of the Egyptian students, either in the universities or the higher institutes. No one was able to identify the fundamental differences between urban planning, urban design, and landscape architecture design in any of the design studios in the different study years. In the site analysis stage, the debate about the urban typology and morphology between most of them is very limited and not precise. In the stage of design, there are no influences for the six dimensions of urban design, particularly about the social transformations in the temporal dimension. Design process is still deal with the most of the project with the same analysis phase; whatever its size and its scale. Furthermore, there are no differences in the stage of design thought, as well as in the whole master plan. Often, the potentials and possibilities represent the end of the planning phase, while the end of the design stage is the stage of planting design and site furnishings. The fundamental differences in the implications of design are still not clear for most of the architectural disciplines. Mostly, these differences seem are in the lack of the clarity of utilization of the intellectual historical paradigms. As, as well as, what are in the benefits of theories, approaches, and design principles; except in the level of the individual blocks or when talking about masses. Undergraduate students acknowledge that they are studying just the elements of the natural environment with an emphasis on plant identification. The students themselves maintain that there is no specifying of particular theories of landscape architects and urban design. In most of the urban design studios, the data outcomes that have been obtained by a review of students' projects will help to emphasize the questionnaire results. Most of the students and a few faculty members deal with urban design just as a means for urban form generation, and simply to

⁵ As Alexander Cuthbert 2011 said; "there is an increasing gulf opening up between developed and developing countries, and a similar chasm between the class divisions in each." [52, p. 94]

⁶ The sample were chosen from the TOP 6 Egyptian schools of architecture; particular, the department of architecture in Egyptian Universities in greater

Cairo such as the universities of Cairo; British BUE; German GUC; and Miser International MIU. As well as, the department of urban design in the college of urban planning; and the department of urban design and planning in Ain Shams University.

configure the relationship between the continuous open space and the enclosed block at the level of the third dimension, which consists of length, breadth and depth of space. They tend to classify most types of architectural projects, such as university campuses, waterfronts, and cultural gardens outside of cities under the same title of “Urban design,” by using the American term “urban design.” They tend to ignore that the American and European terminologies that are known as urban design and civic design emerged to rebuild and rehabilitate the traditional cities, including the historical centers. Often, in their studios, they use the principles that correspond to these terms, whether in the stages of rehabilitation or new developments, both inside and outside of cities. Notably, students and faculty members in design studios deal with urban design projects considered as site design projects, ignoring that these projects should be finished by presenting design guidelines, like what happens in urban planning projects. A few members in the colleges of architecture know that there are intellectual paradigm shifts in the field of urban design, but nobody cares. The issue regarding the necessity of an interdisciplinary field in the area of architectural practice is not only unclear, but it may also be unacceptable. The previous questionnaire with the field survey explained that students’ conception of learning and their actual academic achievements in the framework of these concepts are incompatible. This work aims to provide logical and objective solutions in response to this situation in the academic and research institutions sectors, particularly in the schools of architecture. It would be useful to build a suitable approach to enhance the professional level of the educational phase, particularly concerning the theoretical and historical paradigms of urban design. Furthermore, this paper aims to present a new urban design theory based on knowledge generation. This could be an introductory work in preparation to create the theory of Knowledge-Based Urban Design BUDK. It is also an attempt to establish a system of learning based on fostering intellectual capacities for the students of architecture.

III. ROLE OF KNOWLEDGE IN THE ERASING OF THE INTELLECTUAL ILLITERACY

This paper chooses to discuss the essence of knowledge worry about what kind of knowledge issues means? What kind of knowledge should be taken into account? [11, p. 2] Human knowledge not only gives a degree of belief but also enables an exceptional level of certainty. It is worth asking: What is knowledge? However, this work does not attempt to search for answers to that question. The word 'knowledge' has caused controversy from the time of Plato through the present era. With respect to knowledge, this work will be highlighted for two reasons: knowledge that students should acquire during their university studies and knowledge as a process that handles these gains and applies them to their educational establishments. Hence, they benefit from this cognitive experience, which is based on acquired knowledge, to help them prepare distinct, acceptable projects during their study period and after graduation. Nonaka and Takeuchi (1995), Coulby and Jones (1995), Andre Boudreau (2007) identified general knowledge as I. “a living process.” II. “Justified true belief that increases an entity's capacity for effective action.” III. “A way of

understanding truth and as the essential instrument in ensuring human progress” [12, p. 25]. Providing knowledge is a science that improves people’s abilities to become active learners who seek to understand complex subject matters. In addition, it improves their ability to present, and they are better prepared to transfer what they have learned to new problems [13, p. 13]. Notably, “Knowledge can be acquired by a combination of perception and memory” [14, p. 360], it is empiricism knowledge. As well as, it acquired based in reason as rationalism way. There are two processes to increase the stock of corporate knowledge assets under the process of knowledge generation. First- knowledge acquisition; capturing and bringing knowledge from the external environment, and knowledge creation. Second- developing new knowledge assets. Knowledge creation is “the process of coming up with new ideas” [15, p. 8]. Today, intellectual and cognitive development considered as an important issue “occupies a key foundation in college impact studies” [16] [17] [18, p. 41]. Knowledge is the heart of this study, where the intention of this work oriented toward how to organize, create and share knowledge. How to use knowledge in a systematic way in order to gain real professional benefits [19, p. 19]. In addition to, how the students can achieve the benefits of the collective knowledge during the period of the study to understand the nature of intellectual illiteracy. Whereas “the secret of the future society is education” [20, p. 646]. It remains to develop the intellectual development of the students studying based on two different approaches to learning, a surface approach and deep approach [21] [22, pp. 60-62, 22]. First- Students depends on “a coherent body of knowledge and follow routine solution procedures without trying to understand their origins and limitations.” Second- students “try not just to learn facts but to understand what they mean and how they are related to one another and to the students’ experience” [23, pp. 292-293]. This work can be inserted under the epistemological studies. Today, in developed world, knowledge as a power constitute a kind of ‘world system’ [24, p. 54]. Without most knowledge theories that were previously stated, the human resource will lose its most valuable part, which is intellectual ability, and, then, the people will suffer from intellectual illiteracy. Each person in the field of architecture, urbanism, and urban design represents the intellectual capital in these areas accurately. He or she is the most significant factor in each organization and, consequently, in the community and society [19, p. 26]. This argument takes into account what happens before and after graduation. Albert Einstein noted that the most important motive for work in the school and in life not only the pleasure in work and pleasure in its result, but also the knowledge of the value of the result to the community [25, p. 62]. This paper discuss how can take advantage from the knowledge to improve the outcomes of the real professional practice, and how to deal knowledge through systematic intellectual process, as well as, how knowledge creation as a synthesizing process. From this point of view, it could be used for all professionals and specialists, in all fields of architecture, specifically urban design. Knowledge can be a gateway for all professionals and experts in the area of teaching and learning. As Albert Einstein said; the function of education

is to open the way of thinking and knowledge, moreover, the school must serve that end exclusively. [25, p. 40]

IV. 'INTELLECTUAL LITERACY MOVEMENT' AND ITS RELATION WITH THE URBAN DESIGN DISCIPLINE

This paper aims to recognize different talents and support the distinction of all to remove intellectual illiteracy in the field of urban design (IIUD)⁷. This work was considered as an attempted search for developing this phrase that refers to an unacceptable case in the area of professional practice. Usually, this case may extend to become an adverse phenomenon in the architecture field. This work considers this phrase as a new expression or terminology in the field of urban design; it aims to explain intellectual illiteracy in the architecture field (IIA). Now, in the developed world, illiteracy launches on the people who are not capable of dealing with the world of arts and media fields. Hence, in the developing countries, especially Egypt, the author of this work used intellectual illiteracy to describe the professionals who are unable to generate the innovative ideas for rehabilitation in the traditional urban areas. Furthermore, they are unable to create new development processes either in design studios in the colleges of architecture or in the professional practices in grounded reality. It means the inability to use appropriate analytical methods and techniques according to the requirements of the time and place, and during teaching and learning processes on one side and real practice on the other. It is not linked to the level of intelligence [26, p. 37]. Intellectual literacy considered a necessary endeavor in any professional discipline. It is far from the Arabic phrases that are commonly used or even traded in the dictionaries or relevant literature. Specifically, it's not commonly used in the architectural field, either in the educational levels or professional practice. In this work, intellectual literacy is used as a new term for knowledge activation and concerns the process of achieving useful professional intents. That creates through the cooperation between faculty members and students on the one hand and trainers, experts and professionals in the other hand. Perhaps, quoted such as "a competency is the ability to act consciously and responsibly in a specific context" [27, p. 38]. Also, "knowledge needs a context in order to exist" [28, p. 499], make thinking about how to deal knowledge in the framework of the field of urban design is inevitable. In the urban design field, this work selects the integration between intellectual ability, human cognitive abilities and metacognition to identify the indicators and characteristics of IIUD. In addition, it uses the meaning of learning style as a framework. To achieve this intent, this work focuses on some findings based on several studies in the field of learning and education. That based on identifying the implications of the interaction between the architect himself and its architectural products; in the status

quo. Conceivably, the previous introduction could be considered as an initial contribution. It helps to provide some fundamental indicators and characteristics regarding the importance of erasing intellectual illiteracy in the architecture field, particularly, in the traditional and new urban design disciplines. This issue might be classified to define the intellectual illiteracy indicators in two complementary groups. The first group discusses the knowledge production, with its evolutionary processes and mechanisms. The second will determine the indicators that measure the extent of intellectual illiteracy in the urban design discipline; it depends on the human ability/capacity, with respect to each urban designer. First Group includes fifteen indicators can be attributed to (1) Lack of familiarity with the concept of tacit knowledge as a form of skills needed to handle codified knowledge. (2) Inability to retrieve relevant information of developing and providing new scientific knowledge. (3) Inability to knowledge transmission—educating and developing human resources. (4) Lack in the skills of problem-solving and providing inputs to problem solving. (5) Lack of the principles of knowledge organization that underlie people's abilities to solve problems [29, p. 4]. (6) Lack in the skills of disseminating knowledge. (7) Inability to adaptability with the knowledge infrastructure [26, p. 37]. (8) Weakness of the diversity of culture and human experiences of the urban designer. (9) Lack of the ability to make the terminology cannot be obscure. (10) Inability to concentrate on the details and deal the generalities instead of the partials. (11) Inability to explore the individual unique abilities [26, p. 42]. (12) Inability to achieve a variety of academic knowledge. (13) Lack in producing new knowledge through the progressive research activities, (14) Inability to establish knowing communications, to cooperate knowledge with other disciplines. Finally, (15) the confusion between the essence and meaning of the most important vocabulary that used in the field of competence at the level of words, phrases and terminologies. As well as, on the writing level in the blogging, in line with the data in any language expression: drawing, writing and oral expression. The second group is relevant to the human cognitive and innovation process that use the existing knowledge, as well how to generate new knowledge, bearing in account that "creative thinking skills can promote quality" [26, p. 102]. As John Abbott said; "The ability to think about your own thinking (metacognition) is essential in a world of continuous change." [26, p. 106]. Furthermore, as Etzkowitz and Leydesdorff said; "innovation, in particular, can be defined only in terms of an operation." [30, p. 114] Without going into the details about reasons of retreat of the appropriate intellectual capacity required from the qualified professionals, the following fifteen points indicate to some of the reasons that lead to IIUD. (1) Failure to availability a proper performance which allows reading and follow the new ideas.

⁷ Intellectual illiteracy is a term coined by the author in the last decade, precisely at (2005) in his paper '*Architecture of the Repercussions of the Imagination: Renewal of the Intellectual Discourse*' that presented in Arabic [53, pp. 57-66]. In the architecture field, the definition of intellectual illiteracy was identified by the author (2010) as "an overview and a comprehensive concept, referred to as a phenomenon. Intellectual illiteracy classifies

individuals or groups who cannot express their ideas. They lack the ability to generate new ideas to resolve personal problems and confront issues in fields of specialization. The absence of this capability occurs not by a congenital deficiency (genetic reason), but as a result of the influences of environmental and societal circumstances that lead to loss or limitation." [53, p. 57]

(2) The difficulty of the possibility of analysis and evaluation ideas in full neutrality, as well as inability to think critically (see also the point No.15). (3) Inability to create a new vision for the future built on sound decisions. (4) Unsuccessful attempts to present the uncommon, fictional, and innovative ideas, thus, the product will lose the uniqueness, as Jean-Jacques Rousseau said; “The world of reality has its limits. The world of imagination is boundless” [26, p. 108]. (5) Inability to modify creative ideas into concrete products. (6) absent the intellectual ability to understand and realize design concepts. (7) Inability to apply knowledge to propose solutions in response to the urban context requirements. (8) Inability to formulate the problem or/and reformulation considered as an integral part of the primary work. (9) Unorganized thinking, which ignores that each separate section closely linked with the entire system; (10) inability to use advanced method and techniques, especially which based on a computer aided design. (11) Loss the desire ways to grow the creativity and to share ideas with others. (12) Sufficiency questions with limited endings instead of the other that have open-ended [26, p. 110]. (13) The failure of applying the theories in the context on the ground reality can be attributed to (a) the inappropriateness of specific model; (b) a lack of conviction; (c) a concern with too few factors affecting urban development; and (d) each new development effort is independent of its context [31, p. 40]. (14) The failure of following the principles of critical thinking; (a) Inability to critical thinking or assess anything properly, as Siegel (1988) said about the components of critical thinking in educational contexts is “the ability to assess reasons properly which is referred to as the reason assessment components” [32, p. 23]. (b) Inability to use of specific criteria to evaluate reasoning and make decisions As Diestler 2001 noted critical thinking is the use of specific criteria to evaluate reasoning and make decisions. [33, p. 2], and (c) lack the basic foundational and topical knowledge needed for critical thinking. [34, p. 774]

The second group related some different themes that encouraged creating new ideas, as well as how to continue the practice through definite, objective, and systematic processes. An insufficiency in the ability to create and innovate ideas stems from a lack of understanding caused by the absence of clear indications and implications. Such an understanding permits the specialists to present new theories and ideas. This group should perceived in relation to what happens in the educational institutions and national research centers, particularly in the departments of architectures in the estimable universities⁸.

The next chapter reviews some technical papers published in several scientific forums and workshops during 2010-2015. It will focus on the results of the comparison between the outcomes of these papers and what changed in the existing

urban reality in the same period. This analytical comparison aims to support these issues: I. What are the current topics discussed in the scientific field of researchers? II. How are these issues important to the status quo? III. What about the Egyptian specialists' vision of the effects of the intellectual paradigm shift changes on the planning and designing of the city? IV. In all architectural disciplines, how does each specialist accept and deal with urban differences, overlaps, and conflicts between these disciplines? V. Is there any possibility of building an Egyptian's urban design manifesto?

V. INTELLECTUAL ILLITERACY IN EGYPTIAN URBAN DESIGN REALITY

Before moving towards the declaration of the Egyptian urban design interdisciplinary Manifesto, one can quotes from Alan Jacobs and Donald Appleyard in the research entitled Towards a New Manifesto for urban design that published in 1987; “We think it’s time for a new urban design manifesto. Almost 50 years have passed since Le Corbusier and the International Congress of Modern Architecture (CIAM) produced the Charter of Athens, and it is more than 20 years since the first Urban Design Conference, still in the CIAM tradition, was held (at Harvard in 1957)” [35, p. 113]. In Europe, Latin America, and even in third world countries, in all parts of the urban cities, the problems of the past differed from what is happening today. These problems are poor living environments, gigantism and loss of control, large-scale privatization and the loss of public life, centrifugal fragmentation, destruction of valued places, placelessness, and rootless professionalism [35, pp. 113-115]. All of these problems, but more than exists in the Egyptian cities. In 1962, in Thomas Kuhn's classic paper *The Structure of Scientific Revolutions*, in chapter entitled *Crisis and the Emergence of Scientific Theories*, he ‘states; “Awareness is prerequisite to all acceptable changes of theory” [36, p. 67]. In the current Egyptian reality, one can stop at this statement for reviewing the extent of awareness that can be afforded by making use of knowledge that comes from the West. In Egypt, most scientific and technical gatherings and meetings that are held periodically and are organized by appreciated entities choose the same issues in the developed world to discuss. In addition, this theorization was continuous without any benefits reflected in the reality. For example, in the Egyptian market, the most popular of these topics was the issue of sustainability, such as impact of sustainable, sustainable urban infrastructure, sustainable development, sustainable urban transportation and eco-mobility, new urbanism, as well as the continuous argument about green building, architecture, urbanism, and economy. It was going for a long time lead to publicity associations, organizations and even codes with no benefit at

⁸ Some Western and American universities contributions for developing designing of the city is very apparent. I. 'Civic design' according to the concept of civic arts came at Liverpool University in England in 1901. II. Robert Venturi in his master thesis presented 'Context in Architectural Composition' in Princeton's School of Architecture in 1950. III. 'Urban design' as an American term to build the urban cities comes with a discussion between Josep Sert and Siegfried Giedion in Harvard University in 1945. IV. The first time the term

'urban design' appeared in the Graduate School of Design at Harvard University curriculum was in 1954-55. It introduced through Gidion's History of Urban Design class, and a course called Urban Design thought by Sert, Hideo Sasaki, and Jean-Paul Carlhian [43, p. 110]. V. In the Cornell University Alvin Boyarsky and George Collins was dealing the concept of 'contextualism' in 1960. VI. 'Contextualism' as continuity and regeneration approach elaborated by Peter Smithson in a lecture at Cornell University in 1972. [54, p. 363]

all, in a country where most people of the poor, and live in informal settlements, slums and cemeteries.

The significant issue is how to establish a green building code in a state that cannot afford the cost of constructing this type of building. How can talk about green architecture in the country continue while more than 75 percent of its residents live in informal settlements or slums and most urban communities have started to look like rural areas? If residents are unable to pay their bills, they are low-income people; if there is no income, is it acceptable to build this type of construction? How can they start from where others have ended without completing the necessities? In these forums, new topics began to spread, and they became famous. These are nanotechnology, gated communities, post urbanism, generic city, city branding, utopian urbanism, landscape architecture urbanism and responsive urbanism. Furthermore, some of these forums aim reducing the gap between academic and practical study, without no real benefits⁹. It is very clear, there is no any contribution as a result of this forum, in the field of architecture applications, on the ground reality. On the contrary, the contribution of some similar Western and American scientific forum for developing the designing of the city is very apparent¹⁰. Most of the Egyptian forums presented several important research topics about informal settlements. Whatever, it seems these panels, in its working papers, do not take into account the requirements of considerable numbers of people in their local communities, particularly, who lives in unknown cities— sites¹¹. In addition, who they live in slums and informal areas and representing more than 60% of the Egyptian inhabitants¹². Most of these research papers do not indicate the actual life of the urban cities. In fact, there is no documented data about the amount of deterioration in unknown cities; particularly if taken into account what revolves around the topics in thesis researchers such as utopia, dystopia, and anti-utopian. Even when some of these forums wanted to solve the current problems in the traditional urban areas, it chose the latest European and

American issues to be the in discussion¹³. This choices focused on the latest paradigms in urban design discipline. Always this occur before take the benefits of the using of conventional methods, theories, and approaches. In developing and poor countries, the application of these new paradigms considered a dilemma while it is very helpful in the developed world¹⁴. If those Egyptian scientific forums need useful recommendations and to be usable in the actual urban reality, it should not activate the latest paradigms. It would never be presenting acceptable theories and principles, as well as making incorrect planning and design processes.

Today, those who followed and reviewed the periodical scientific forums' outcomes felt shocked and dismayed. There is a big difference between the research projects' findings and what is really happening on the ground. While some researchers seem to admire his work, living in a fantasy world, the legal organizations and institutions fly into another world. There is no governmental agency or private foundation that asks about any research findings to solve any community or societal problem. At the end of any forums, the essential attribute is the disregard of the research papers. The destination of these papers will be on the shelves of libraries or the internet webs. Remarkably, in Egypt, scientific papers that are based on applied research are very limited, and there is no application work that takes into account the scientific research outcomes. Since the mid of the last era, those forums were starting to focus on low-cost housing projects, visual pollution, and character. It has also moved to informal housing projects. The observers of the Egyptian cities are surprised concerning this situation. It is an unreasonable tragedy. At the end of the seventies in the developed world, specifically in the housing field, pioneers in architecture, urban planning, and design had invented and developed new theories and trends. The concept of urban upgrading replaced the urban renewal; the notions of preservation and conservation of the valuable areas have been prepared in the urban design field. Today, development of the

⁹ For example, regarding some conferences that hold in Cairo, Egypt during (2010-2014). 8th International Architectural Conference, Dept. of Arch. Eng., Faculty of Eng. Assiut University, Egypt, Architecture & Built Environment Contemporary Issues, (2010). Al-Azhar engineering international conference, twelfth (2013) and thirteenth (AEIC 2014). Scientific gathering hold in Housing and Building National research center HBRC, Cairo, Egypt during (2013-2014). (1) Arab-African Forum on Green Building, (AAFGB), 2013. (2) Conference and international exhibition, the future of gated communities towards sustainable urban development, 2013. (3) Sixth International Conference on Nano-Technology in Construction, (NTC 2014), 2014, built and Natural Environment Research Papers 2011 Volume 4, No. 1, pages 1-148 referring to Future Intermediate Sustainable Cities Conference, 23-25 November 2010, Egypt. SB13 Cairo, Sustainable Building Conference, Democratic Transition and Sustainable Communities, Overcoming Challenges through Innovation Practice Solutions, 6-7 November 2013, Cairo, Egypt. 6th International Conference on Responsive Urbanism in Informal Areas: Towards a Regional Agenda for Habitat III, Faculty of Engineering, Cairo University, November 25 - 27, 2014.

¹⁰ The first Urban Design Conference was held at the GSD on 9 and 10 April, 1956 to define the essence of urban design. In addition, this conference discusses the participation of architect and planner in urban design or physical planning, as well as a series of other professionals [43, pp. 110-111]. In 1993, based on The Congress for the New Urbanism (CNU) in Alexandria, Virginia was founded a movement – like the Garden City Movement –advocating the tenets of New Urbanism that formulated in the Charter of the New Urbanism in 2000 [55, p. 1].

¹¹ 'Unknown cities— sites' is a non-common term, coined by the author in 2015 means “cities— sites have not taken the opportunity to explore from a large number of researchers like the traditional famous cities”.

¹² UN Habitat at the last census determine the number of habitants in the informal housing and slums in Egypt nearly 60% of the all Egyptian' people.

¹³ Alatas noted that developing countries' acute dependency in both teaching and research knowledge at all the levels overwhelmingly originate from on western science and knowledge [56, p. 604]. He noted that the real problem is “the emergence of intuitive thinking arising from overdependence on the western intellectual contribution in the various fields of knowledge” [57, p. 8].

¹⁴ In Europe, in 1940, the term urban renewal emerged as a revitalize of the city centers that has been demolished after the First World War. It remained in practice under the Law of city clearance until 1960. In the Concise Oxford Dictionary definition of renewal is to “regenerate, make new again, restore, and recover”. For Chris Couch, urban renewal is “the physical change, or the change in the use or intensity of use of land and buildings, that is the inevitable outcome of the action of economic and social forces upon urban areas” [37, p. 1]. Roger L. Kemp defined urban renewal as a movement aimed at “modernize and reshape the physical character of the city” [58, p. 10]. Whatever, in many places, urban renewal known as reducing the spread of the deterioration of community living conditions and high unemployment rates in the cities that densely of populated. In 1954-1959, American cities renewing was activated as a desire for developing the deteriorated cities. As well as, the term of rehabilitation emerged in sync to the urban renewal in the housing low in 1954.

traditional residential areas and informal housing projects focuses on new principles respecting new applications by using the techniques of upgrading and improvement [37]. The issues relating to the characteristics of the local communities need real research, especially in unknown cities that have not been visited by any researchers before. Furthermore, researchers do not use the essential findings of all historical and intellectual paradigms, such as schools and social movements. Also, they do not use any scientific theories, trends, and approaches that are preferred in the beginning phases of rehabilitation, regeneration, conservation, preservation, and upgrading. Today, many researchers desire to activate the latest theories regardless the initial steps of rehabilitation. In the eighties and nineties, the research numbers that focused on the issues of housing and urban planning increased; Such as, low-cost housing, basic planning units, planning grids and upgrading in informal sectors. In urban design discipline, the issues has been focused on socio-cultural transformation and history of thought, urban form generation or urban morphology, urban rehabilitation, conservation and preservation of the valuable heritage and historical areas. In addition, there are a selected numbers of issues that are concern of the urban character, identity, socio-cultural environment, and landscape architecture. Since the beginning of the third millennium, till now, these discussions focused on the environmental issues such as sustainability, green building, green architecture, as well as nanotechnology in the architecture field. In spite of more than thousands of scientific publications that have presented suggestions and solutions in the recent past, the current situation is getting worse. At the beginning of the third millennium, Egyptian cities faced a civilizational challenge. Its unique character is targeted, including its significant heritage momentum that had been gained from the accumulation of entrant knowledge from around the globe over time. This cultural heritage was destroyed—not as a result of time but because of deliberate neglect. Also, it may be a consequence of the non-application of scientific research findings, and, more than that, because of its reliance on non-innovative solutions. These problems cannot be determined, but what concerns us is attracting regard to identifying the appropriate solutions. All of these previous problems have led to a massive and costly cultural chaos for civilization, which has already remained thousands of years. That chaos represented in several aspects such as, urban growth and sprawl, ruralization, In addition, the growing of the urban and rural phenomena, both in the constructions or human. In addition, the deterioration of traditional and heritage sites, lack of community services, lack of adequate car parking, overlapping incompatible uses, and the spread of slum areas.¹⁵

In present-day Egypt, traditional urban areas need to start from where others began, not from where others have ended. Indeed, we have to re-invent the wheel, without ignoring the historical time series and the existing theoretical paradigms, which are

still valid today. Developing countries must apply themselves to the development of the field of urban design, much like the European and American nations did after World War II. The spirit of urban conservation and urban renewal should replace the concept of removal that is prominent in the traditional, valuable, and historical areas.

Due to the necessity to emphasize that the scope of the problems regarding stereotyping in urban studies, researchers' attitudes toward unknown cities should be identified. For example, researchers talked about some cities that are not suitable for conducting any scientific research. Those researchers have the desire to go beyond what can accommodate unknown cities. Their research has been presented in significant scientific forums, both inside and outside Egypt. Regarding unknown cities, researchers do not care about the absence of knowledge, but they see it as the non-preferred method. They also do not have a reputation for well-known researchers.

In most Egyptian scientific forums referring to the issues displayed and discussed, the final session recommendations that were documented in the conference papers do not contribute any new. Those forums in their current form are not valuable, especially if their primary purpose is for theorizing and recycling information imported from abroad. Over time, those boards become places for spending time and means of promoting academic members. In all cases, they cannot be equated with forums that have aims. They provide targeted solutions to solve real communities' problems. Solutions aim to rehabilitate deteriorated areas as well as provide new development fields. Moreover, given the submission of new proposals for serving humanity, there is an enormous quantity of theoretical knowledge. Knowledge can be obtained from current urban design thought, but some useful knowledge is still used by some Egyptian architects. Mostly, it happens without identifying what architectural discipline it could belong to. Arguably, too much theoretical knowledge in urban design is still unfamiliar to a large number of practitioners. For example, most inner disciplines aim to reach livable cities, but some of the practitioners do not know how to apply each discipline's principles to achieve this goal. Moreover, they do not know how to distinguish between the areas of the urban design interdisciplinary field, such as architecture, urban planning, site planning and design, housing, and landscape architecture. Today in the developed world, most specialists see the fundamental differences between all these disciplines and urban design very clearly, while, in Egypt, some participants in the field of specialization ignore or disregard even the fundamental differences. On the other hand, few professionals refuse to just recognize the acceptance of these differences. Furthermore, they do not accept using theories or approaches in urban design paradigms that exist independently of their disciplines.

Currently, in developing countries, it seems that for many specialists, the issues that are emerging are appropriate for solving their current problems. This is a considerable mistake.

¹⁵ In spite of 30 years of the governmental attempts aimed at reducing unplanned growth and urban expansion on agricultural land around Cairo, as it has in most Egyptian cities and villages, but the informal settlements around Cairo sheltered more than 7 million inhabitants in 1998, they are estimated to

contain more than 65% of the population of the metropolis (10.5 out of 16.2 million inhabitants), and the rate of population growth in these areas is higher than other city averages, increasing 2% between 1996 and 2006. [59, p. 17]

Discussing the theoretical issues without applications is not enough to solve one real problem on the ground. There is no doubt that the technical, scientific forums that discuss topics such as rehabilitation and upgrading deteriorated areas have become great in number since the mid-twenties of the last century. These boards have increased and continued without interruption but also without actual usefulness. Surprisingly, these forums have begun to discuss issues such as sustainability, green buildings, green architecture, and nanotechnology, but also without real value.

Nowadays, immediately before departure and leaving a land for heaven, we need Egyptian cities to have hearts, spirits, and minds; nobody wants machines, robots, and Frankenstein. We wish cities governed by terms and systems, but we do not prefer a sense of helplessness. If one specialist or more presented a universal theory, it would be appreciated, but it would be best if that effort were directed to solve the real architectural communities' problems. The end of this section asking different questions revolves around how to activate latent problems in scientific society? What are the advantages of those annual theoretical scientific forums? How long will it appear to take advantage of the findings of this panel on the status quo? Will the users of the new theories in the architectural paradigm be satisfied and accepted in the present day, even if they do not provide any results we can see on the ground? Egyptian citizens need to find an Egyptian architectural theory to help to solve their real problems, and it should be written in Arabic.

VI. SELF-CRITICISM IS THE FIRST STEP OF RAISING THE INTELLECTUAL ABILITY

Does our 2015 issue revolve around what is distinctively Egyptian urbanism? Logically, before attempting to answer this question, it is appropriate to say that both critical and creative thought are achievements of intellectual aptitude. The process of the actual generative power of thinking (creativity) and its judiciousness (criticality) work together [38, p. 6]. As Manfredo Tafuri in *his paper Theories and History of Architecture* "Criticism as one of the dimensions of architectural activity... has to renounce systematic expression in favor of a compromise with daily contingencies" [39, p. 153]. The task of criticism is "an objective and unprejudiced historical diagnosis, which requires a great deal of courage, since it [aims to] understand all contemporary myths by radically demolishing them" [40, p. 5]. As Theodor Adorno has noted, "Logically, the ageing of modern music should not drive composers back to obsolete forms, but should lead them to an insistent self-criticism" [41, p. 167]. Based on this statement Neil Leach in the introduction of his paper *Rethinking Architecture* that "the ageing of modern architecture, one might argue, should not drive architects back to the escapism of 'obsolete forms', but should lead them instead to an 'insistent self-criticism'." [42, p. xiii]

Probably, there is some cognitive ignorance that is inherent in the status quo of some Egyptian urban areas in relation to the current distinctive urban designs. Perhaps this ignorance stems from failures in some of the Egyptian educational institutions, such as the schools of architecture. Also, it may be influenced by what exists around this architectural field of practice, such

as management, implementation, and practice. In addition, rules, regulations, and political decisions are often missing in relation to erroneous applications. Hence, to examine this assumption, which talks about the Egyptian architecture as a terrible situation, the beginning should be from the middle of the second millennium. Starting from searching for the effects of the historical paradigm shifts and what submitted of American and European theories, approaches, and trends for the Egyptian context. Before that, it should recognize the Egyptian educational situation clearly. It should review this situation after the Egyptian pioneers left, due to death or aging. The next two or three generations that started working, most acknowledge that they were not as competent as the first generation. Also, for those generations, the greatest influence came from an expanded establishment of private universities and technical engineering higher education institutes, which are systematic weaknesses in the learning process and the administrative structure. Although large numbers graduate each year, they lack in most fundamental types of knowledge. It should be taken into account that there is no real evidence if those students were or weren't taught urban design paradigms in these educational institutions. Then, the assumption is simply to say that this knowledge ignorance does not cause the unavailability of the principles of innovation or abandonment of educational and scientific research systems. It is not because the number of students has strongly increased. However, we accept the previous argument because most of these universities, or maybe some of them, hold quality standards. From this point of view, this knowledge ignorance occurs upon ignoring the teaching of some basic forms of intellectual knowledge paradigms in each architectural discipline. Furthermore, this ignorance can be detected based on the basis of rational, logical, and objective criticism for applications of professional practice and in some universities and higher institutions. It is important to note that criticism of the architectural end results is not the intention of this paper. This paper will neither criticize the urban design movements or theories nor the modernism and postmodernism movements, and it will not use phenomenology, semiology, or any other analytical approach to review Egyptian architecture in the status quo. The primary intention of this paper is one of self-criticism, directed toward the urban design field of practice, which does not take the benefits of existing knowledge concerning previous historical paradigms. It is unreasonable that the professional responsibilities in the planning and designing of Egyptian cities is always inconsistent. Most officials work separately: specialists in their vocational education; scientists in their forums; the organizers in their offices; and they all end up doing what they want. Conceivably, it is very difficult to solve this puzzle. In spite of that fact, the three sides of the triangle exist; namely, the professional specialists, scientists, and the officials. Each one seems to work according to the rules, but the teamwork and coordination between those sides of this professional triangle are always missing. The urban reality needs to activate the three sides of this triangle—the professionals, researchers, and organizers—as well as the people as a fourth side or dimension in order to work together

for the people. The need to establish the rules and conditions convergence between them is very necessary, particularly, to accommodate everybody in exploring the ideas that help to solve the local problems.

They will never find a way out from these problems without dealing with the urban reality. That is what concerns us instead of using what is not concerned. It should use a language that is compatible with our local society. Therefore, those forums, workshops, and technical papers that are submitted to solve the theoretical problems are useless. Consequently, it should concern our problems, in our own reality on the ground.

XV. EGYPTIAN MANIFESTO

This chapter will be the last of this short manuscript; we chose some contradictory descriptions of the urban design to be in the beginning. Some commentators were used such as David Smiley (2002), Alexander Cuthbert (2007), Stephen Marshall (2012), and Matthew Carmona (2014)¹⁶. The preceding text summoned manifold questions. Urban design is science and discipline having huge theoretical knowledge and applications in Europe and America. The first question is how can we think about this thing in a non-objective manner? Is this science, specifically in Europe and America, considered a quantum leap in dealing with the cities after World War II? Has it evolved to meet the requirements of the people? What if the West has stopped theorizing about the City Beautiful Movements or the linear and garden cities? What if the West has stopped speculating on visual quality without going to any social or economic dimensions? Has the access to interdisciplinary urban design passed through the evaluation in all architectural disciplines, despite that they have several pioneers' contributions toward the development of their cities? Those cities suffered after the world wars in Europe, or as a result of the problems of urbanization in America. Also, they have contributions in several countries such as Russia, Germany, and Japan. What if western theory rejects this cognitive science and the field of professional discipline? Furthermore, what about the developing countries like Egypt, which have no pioneers in this field? For a long time, the architecture field was dominated by urban planning, followed by housing and landscape architecture. In the 1990s, in Egypt, the importance of this area increased, especially after the extensive construction of new settlements and recreational resorts in the northern and western coastal areas. Is it possible today to incorporate the profession of architecture into urban design and interdisciplinary urban design? Is looking beyond the theoretical knowledge of urban

¹⁶ Smiley said that "urban design is a nebulous endeavor," and "the nature of urban design is chimerical" [60, p. 15]. While, Cuthbert (2007) noted that "there has been no concerted attempt within the discipline to link the material creation or 'designing' of urban space and form to fundamental societal processes" [61, p. 177]. Also he said (2011), "traditional urban design theory over 50 years, criticizing it for being 'anarchic and insubstantial'" [52, p. 94]. Also, he said, "we need at least to consider whether mainstream theory is up to the task of theorizing the New Urban Design" [52, p. 94]. Marshall (2012), describe the urban design as "is haunted by ongoing uncertainty about its status as an intellectual discipline" [62, p. 257]. Moreover, he said, "urban design is at least in part pseudo-scientific" [62, p. 267]. Thus, Matthew Carmona (2014) conclude; "For critics of this nature the answer is often to reject urban design as a free-standing field." [48, p. 3]

design important? Is the scope of students' knowledge useful at the beginning of the third millennium? Has students' knowledge of the field increased compared to what it was before? Do students have the ability to use their theoretical knowledge in the preparation of practical projects at their urban design studios? Why is the college of architecture so intent on teaching the history and theory of architecture and urban planning while ignoring the same issues for housing, urban design, and landscape architecture? Is it possible to consider interdisciplinary urban design an essential discipline, given the status quo?¹⁷

In fact, the primary intention of this paper describes that the cognitive awareness for most Egyptian students is incompleteness. The importance of the theoretical background of knowledge structure represents the backbone of this paper, which describes data, information, concepts, definitions, and terminologies as the priority for each architect and urban designer student. It should follow the need to teach knowledge acquired and analysis that passes through searching architectural thought within the paradigm shifts of urban design. Furthermore, it should know everything about architecture movements, theories, trends, principles, and methods specifically concerning the art of the city planning and designing. From this point of view, urban design should become an interdisciplinary field of practice, entitled in the name of the art of the city. Also, it should spread to become a scientific art of city architecture. Today, in the concept of architecture, the single block is not the only interest, but its interest will also be oriented toward all that will be built in the natural and built environment on the earth. These environments need to collaborate between different architectural disciplines, where it should cover all the levels and scales either inside or outside the single blocks. It should also provide a good arrangement of these blocks in each site, regardless if its scale is small, medium, or large. It should be interesting enough to satisfy people's requirements related to natural, human, and man-made features. It should take into account the socio-cultural, economic, and political characteristics, as well as all geographical and environmental effects. The need for an interdisciplinary field will remain a priority, such as the architectural profession, where teaching and learning process practices are taken into account while preparing programs and teaching plans, either in curricula or syllabi. Disconnection between disciplines will be a methodological educational issue. Planning and designing a city includes several types of projects involving public and private housing, universities, hospitals, social centers, parks,

¹⁷ Banham in his paper *Megastructure*, notes "the growing recognition during 1960s of an interdisciplinary gap between architecture and planning, suggestion that the intermediate field of urban design was concerned with urban situations about a half mile square" [63, p. 13]. Moudon (1992) noted "the interdisciplinary nature of urban design is likely to remain, and it is doubtful that the field will ever become a discipline with its own teaching separate from the establish architecture, landscape and planning professions" [64, p. 337]. As Tridib Banerjee and Anastasia Loukaitou-Sideris in the introduction of their paper *Companion to Urban Design* (2011) that "the field now comprises a core body of knowledge that enfolds a rich history of ideas, paradigms, principles, tools, research and applications, enriched by electric influences from the humanities, and social and natural science. [65, p. 1]

amusement parks, gardens, and resorts. Those projects need to activate all the principles in all architecture disciplines together in order for planning and designing to occur. It needs all professional levels of practice such as city planning, urban planning, urban design, site planning and design, landscape architecture planning, design, and interior design. In the first stage of urban planning and design, the role of the urban designer should be a priority.

A starting point for understanding intellectual illiteracy in urban design should be understanding the inherent fundamental differences among professionals in different specializations. Urban design, known as the art of the city, is a science, scope of work, and level of practice. Since the early beginning, in European and North American developed countries, the urban design discipline rebuilt the traditional valuable areas, with emphasis on the city centers. Over time, it was expanded to the development of new areas. In fact, since the seventies and eighties, most of those countries finished rehabilitation of the traditional and historical areas. At present, the focus is on community design and new development. In the traditional cities, experts follow their efforts to improve the city by using the principles of urban landscape architecture design to support beauty. Today, interdisciplinary urban design has replaced the notion of separation between disciplines. Today, this discipline discusses cities' issues, focusing on welfare, happiness, and urban vitality. In this regard, we can say that urban design did not reach the Egyptian reality yet--still far away from deals as a professional field of practice on the ground, specifically in the historical areas, traditional places, as well as the city centers. In fact, urban design is a very advanced discipline on the level of education in most colleges of architecture and planning in Egypt. However, few specialists and professionals still confuse UD principles with another principle that exists in different disciplines. These disciplines are city planning, urban planning, site planning and design, housing, and landscape architecture. For instance, informal residential areas or slums development need to activate the principles of housing discipline sciences, not those for urban design or urban planning. Housing, as a field of practice, needs to have different development programs such as upgrading, improvement, and redevelopment. While it has concerns, the urban design discipline indicates that it should be used specifically for various approaches such as rehabilitation, which include conservation and preservation in the historical areas. In fact, in the architecture field, there is a broad range of developments and approaches such as redevelopment, rebuilding, rehabilitation, improvement, upgrading, restoration, renewal, conservation, and preservation. Today, manifestly, in the art of the city discipline, architecture is not just the art and science of designing and erecting buildings, and buildings collectively. It has expanded to become a scientific art, an educational discipline, a domain of practice, and a field of enlightenment. It not only focuses on individual buildings and other large structures, but it also deals with the context inside and around those structures. In addition, it works as an umbrella, covering all disciplines in the construction profession's operations from the macro to the micro level. Architecture concerns all human shelters on the ground, both

inside and outside of towns and cities, and of all sizes or scales. Its two identified tools, representing two sides of the same coin, are planning and design. Planning focuses on defining the strategy and goals of the project. One primary concern of planning is typology, which aims to organize the functions of cities in two dimensions. In contrast, design interests include the form, formation, and morphological works in three dimensions. It's very difficult to build a city using just planning without design and vice versa. The building of a city needs to incorporate all the disciplines of architecture, taking into account both planning and design as tools and levels of practice. European and North American experiences of urban design presented numerous intellectual paradigms that included many intellectual problems, social movements, theories, approaches, and trends. All of those aimed to search about raising the quality of urban form, either for rehabilitation of the historical areas in the traditional cities on one side and for developing the new fields in the inside or outside cities on the other. Urban rehabilitation as a technical approach embodied a different philosophy and embraced the essential part of the concept of urban renewal. It includes multiple approaches to solving the decay of urban areas, such as urban conservation and preservation, improvement, development, and upgrading. Each approach has distinct methods and techniques. For instance, when problems occur in the deteriorated areas, particularly in the informal residential areas, the experts will choose the principles of upgrading approach. However, if the same problem falls in the old or historic districts, the problem will be fixed by using the other principles takes from urban conservation. Each specialization has its own unique paradigm, as well as new trends, theories, and approaches to deal with any urban dilemmas. In the present era, there is a confusion in understanding the differences among housing, urban planning, urban design, and landscape architecture. This confusion does not exist any longer in most developed countries.

Presently, Egypt is classified as a developing country; Egyptian specialists carried out their obligations in the hearts of the Egyptian communities, even during circumstances that resembled the aftermath of World War II in Europe and America. Those circumstances are represented in increasing slums and poor districts, the loss of residential places, overlapping uses, a high population density, and a persistent image of what a city center should be. In addition, there are building constructions overgrown and deteriorating with costly infrastructures. In addition to the increased the use of automobiles, there is inadequate public transportation, reduced and inconvenient environmental quality because of automobile traffic and parking, as well as traffic chaos. Egyptian experts should begin to draw the outlines of the planning and design of the cities. They should start by using each architectural specialization, specifically in the stage of selecting the appropriateness of theories and approaches on one hand, and choosing the level of practice on the other. The starting point should begin with a proper selection of basic principles, and this is before the selection of the latest theories that are based on European or American paradigms. There are several issues about what happens in the deteriorating informal areas. Is it

possible to use theories of visual perception before completing the principles of the urban upgrading approach, which deal with establishing levels of infrastructures and utility networks? Is it possible to use perceptual dimension, meaning, identity, quality, and esthetics, in this informal area before upgrading educational and health levels of the people? Is it logical to use the principles of green architecture, new urbanism, and post-urbanism before providing infrastructure networks or improving societal services? Is it permissible thinking, according to the Egyptian Green Building Code, before committing to the requirements of the Building and Construction guidelines on the levels of form and formation? Is it permissible to go directly to the development of squares and green areas, to support beauty through the use of elements of landscape architecture, before reaching solutions that deal with typo-morphology?

An excellent interdisciplinary urban design depends on the following intellectual capacities: (a) Knowledgeable about the type and style of urban places and the appropriate methods of construction and development. (b) Recognition and identification the real inherent problems. (c) Improving the ability to generate new ideas through the development of knowledge acquisition and improvement of individual skills. (d) Thereby, contributing to the learning of how to apply these ideas in a real urban project. (e) Generate powerful urban design initiatives; meaningful and insightful; concepts, policies, plans, and guidelines. (f) Increasing the ability to evaluate urban design programs. (g) Working successfully in interdisciplinary design teams and with private and public organizations and communities. (h) Presenting the proposals and information clearly in convincing and innovative ways. (i) Appreciating the cultural differences and work across national frontiers; keeping in-touch with current urban design issues. The fields of interests encompass several questions such as rebuilding and rehabilitation of the existing urban communities with care by the historic preservation matters in the ancient cities and popular places and heritage areas in addition to preparing new development in the new urban growth areas with interest in formulating development guidelines. Today, its interests are achieving the principles of sustainability and subsequent effects of urbanity over time in light of this determinants. In addition to using the principles of urban design to make cities livable, the goal is to support the personal identity and character of urban design and architecture to meet the esthetic requirements of urban architecture. The urban designer should take into account issues related to human values on three levels: (a) the obsolescence of deteriorated buildings based on the deliberate neglect and lack of preservation or maintenance; (b) urban and rural sprawl based on urban orientation; and (c) awareness of all problems that exist in urban communities. Today, the critical question is whether there is any possibility to activate the theoretical, intellectual paradigms of interdisciplinary urban design discipline. The answer is yes, but I think it should appear in the beginning, on the academic and professional levels at the same time. Today, they use the idea of urban sustainability. Experts are starting, on the level of theorization, to use some of the newest approaches, such as green village, eco-village, and

eco- friendly. The Egyptian manifesto calls for the acceptance of interdisciplinary urban design as an important scientific art to build the city on both educational and professional levels. It should start from the beginning, including the knowledge that exists in the historical paradigms. It should take from European and American efforts in designing Egyptian cities. Furthermore, it should deal with this scientific art as the level of competence show its principles by using the tools of planning and design. In the college of architecture, the teaching program should be re-characterized and added to a new department entitled the art of the city. It should move toward teaching the history of theories in all architecture departments (planning and design). Then, it should highlight the history of theories for each discipline to identify the historical paradigms in each. Moreover, it should know the relationships between these paradigms, choose the principles in each discipline, and collect them for working on one project.

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