PROSPERITY OF THOUGHT VERSUS RETREAT OF APPLICATION: A Comprehensive Approach in Urban Design Teaching

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Abstract
This study focuses on a relevant question, practically in urban design studios; when will specialists discuss their educational visions around urban design in teaching plans? Currently, although Egyptian architecture and urban environments follow those of postwar European cities, numerous architectural schools teach the new urban design paradigm while ignoring the declining of cities. To reverse this trend, the author proposes that architectural educational institutions in Egypt need to alter their learning programs. Therefore, this study aims to create a new urban design module depends on outcomes based-learning consistent with the present Egyptian city scene on the basis of intended learning-outcomes.

Keywords: Urban design; Curriculum map; Learning outcomes; Learning method

INTRODUCTION: AN IDEA WITH CRITICAL QUESTIONS
Urban design has established a scientific discipline as its development has surged in recent decades. Current practitioners are committed to alleviating the situations that have escalated since the Second World War in Europe, such as traffic chaos, slums, poor districts, overlapping uses, high-population density, and proliferation of building construction. Egyptian cities have degraded by building obsolescence and overcrowding. Many of today’s tribulations are the downside of sophisticated technical and scientific applications. However, sustainability can nonetheless be improved by applying urban design principles developed at the academic level. Because of the widening cultural differences between the civilized world and developing Arab countries, urban design as a scientific art has not been implemented in some Arab universities.

This research was inspired by frequent observations made by the researcher while teaching undergraduate urban design courses in Egyptian government universities and several private universities. The urban design curriculum at these institutions focuses primarily on the following two main issues: the perceptual dimension and assignment of selected study projects, with no apparent attempt to interrelate the issues. By contrast, in some Western universities, the aim of urban design studios is to improve students’ ability to apply theory to assigned projects, drawing on recent literatures of urban design. Therefore, this research raises questions regarding urban design as a scientific art as argued in some literature reviews (Figure 1).

Accordingly, this study suggests a hypothesis that no real correlation exists between the theory discussed in the literature and what students are learning in undergraduate design studios. The research tests the hypothesis using the following two approaches: a deductive-analytical approach for understanding urban design concepts and principles reported in the literature and a questionnaire-based descriptive analysis of students’ perspectives in the urban design studio; the constructive approach. The research questions posed in this study were inspired from an analytical study of the syllabi in some of the most respected Egyptian educational institutions.

The research methodology follows the inductive- deductive approach. The manuscript starts by the content analysis of the Egyptian academic situation in urban design courses to address the research justification. The research method presents a review on the urban design as a scientific art and what the intended learning outcomes (ILO) are to fit the practical field in the Egyptian cities and towns. Finally, it gives a contemporary way to arrange and elect topics that
match the ILO. The research tools depend on the questionnaire launched to the students and graduates from Egyptian universities that passed through the urban design course. Based on the methodology and research justification, the paper concludes a way to teaching urban design to verify the research hypothesis.

**Research Questions:**

What are the common definitions and concepts of urban design?

What are students’ attributes gained from teaching urban design courses?

What are the interest of urban design in the present era

What are the principles gained?

How does urban designer deal with the urban context?

**Figure 1:** The research questions gain from the literatures review and the research justification (Source: Author).

**THE EGYPTIAN SCENE: RESEARCH JUSTIFICATION**

This section reviews urban design course curricula in some respected Egyptian universities and higher institutions throughout the past decade namely some instructions. (I) The Department of Urban Planning and Design, author’s university, (II) the Department of Urban Design, College of Urban & Regional Planning, Cairo University, (III) the Faculty of Engineering, Cairo University, and (IV) the Faculty of Engineering, Helwan University. The selected institutions have broadcasted their curricula online and provided definitions of urban design thought in the College...
placement and course outline. The selection of cases depends on addressing urban design as an academic course in curricula plan of architectural or urban planning program as well as the viability of getting information online.

Egyptian universities typically plan urban design courses for undergraduate students in their third and fourth years, unless urban planning and urban design are taught in separate departments. Most Egyptian learning institutions base their teaching of urban design on two approaches. In the first approach, urban design is taught as an independent and elective fourth-year topic; this approach is adopted by Helwan University. This university focuses on the elements, regulations and standards for systems, and legislation on urban design. (Department of Architecture, Helwan University, 2010) The second approach is to establish separate urban planning and design departments, each one offering a three-year degree program. This approach, implemented by the College of Urban & Regional Planning at Cairo University, (UDD, 2012) has the following three levels of urban design teaching: introductory, learning of principles, and acquiring skills. The key topics in that college are visual perception, elements of composition, and empirical studies. For instance, in the Department of Architecture at Cairo University, urban design is taught in six semesters over three academic years. The course aims to link the perceptual dimension with applied projects (ARCHCAIRO, 2003). Other universities divide a three-year course into four semesters, following the functional dimension and urban design paradigm (UPL, 2009). Consequently, urban studios in most architectural and planning sectors adopt the same attitudes to teach the perceptual dimension, applications to local realities, and methods and techniques of professional practice (Table 1).

Life and Death of Great Egyptian Cities: Content Analysis of Academic Situations

Many urban design studios in Egypt have adopted European and American ideas, which follow various transformations in widely different contexts. Before the 1970s, most Egyptian architects and urban planners based their courses on the City Beautiful movement, incorporating the ideas of Howard and Geddes, the Townscape as a Philosophy concept, and Lynch’s idea of the image of the city. The perceptual dimensions have been enthusiastically adopted by next-generation urban designers in architecture and planning departments. In particular, Lynch and his colleagues continue to teach the theories proposed in Lynch’s seminal work, “The Image of the City,” at both undergraduate and postgraduate levels.

Several respected urban designers, particularly those based at Cairo University, have imported European and American “the art of the city” ideals to Egypt. However, Western perceptions of urban design differ from that ingrained in Egyptian institutions. Contextualism movements focus on theories of city form, language patterns, urban space development, and original ideas of urban space. These imported ideas have led to disputes between the traditionalists and their students. Indeed, the Department of Architecture at Cairo University was disciplined for initiating this change. Since the early 1980s, the new American and European paradigm of urban design has transformed MSc urban design courses and PhD programs in Egypt. Most Egyptian government universities have simultaneously introduced urban design as a core or elective course in their architectural programs. Other universities have created a new department for this discipline. As expected, planners of academic urban design courses do not omit colleges of engineering. However, urban design is taught in architectural departments, who adopt educational programs issued by government universities with no attempt to adapt the curriculum to change market values.
Table 1: The main topics of urban design discussed in the Egyptian universities

<table>
<thead>
<tr>
<th>General Attributes</th>
<th>Architecture Bachelor Degree</th>
<th>Architecture Bachelor Degree Specialized in Urban Planning &amp; Urban Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic hours (total)</td>
<td>6h/week 90h/semester 180 h/year</td>
<td>10 h/week 150h/semester 150h/year 10h/week 300 h/year</td>
</tr>
<tr>
<td>No Academic Years</td>
<td>1 (2 semester) 3 years</td>
<td>One year (one semester) 3 years (5 semester) 5 year three semesters</td>
</tr>
<tr>
<td>Type of Course</td>
<td>Main</td>
<td>Main</td>
</tr>
<tr>
<td>Year of curricula accreditation</td>
<td>2003</td>
<td>2003 2008</td>
</tr>
<tr>
<td>Module overall aims: By the end of course/module the students have must be able to ...</td>
<td>Distinguish Objectives of urban design, Scope, Processes, related field, Products of U.D. Developing of urban design skills.</td>
<td>Study of elements and styles of urban design Distinguish the principles of design of urban spaces in cities. Discusses factors affecting the design decisions Practice visual treatments in the formation of urban spaces and elements. State regulations, standards for and legislation. Understand principles of urban design Relation and connection to socio-cultural issues Compare between different urban planning and design projects Design and construct alternative solutions to projects Distinguish the city from the viewpoint of the visual dimension. Create the city/site form through new development. Manage the process of urban conservation and sustainability.</td>
</tr>
<tr>
<td>Concepts and Definitions</td>
<td>Not Achieved</td>
<td>Not Achieved</td>
</tr>
<tr>
<td>Avant-Gards and Pioneer</td>
<td>Not Achieved</td>
<td>Not Achieved</td>
</tr>
<tr>
<td>History, Thought and Paradigm</td>
<td>Not Achieved</td>
<td>Not Achieved</td>
</tr>
<tr>
<td>Principles</td>
<td>Achieved</td>
<td>Achieved</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Achieved (Only the visual dimension)</td>
<td>Achieved (Only the visual dimension) Achieved (Only the visual dimension)</td>
</tr>
<tr>
<td>Methods and Techniques of Professional Practice</td>
<td>Not Achieved</td>
<td>Not Achieved</td>
</tr>
<tr>
<td>A Study Project Reflects the Context Problems</td>
<td>Achieved</td>
<td>Achieved</td>
</tr>
<tr>
<td>The Relationship between Paradigm and Local Reality</td>
<td>Not Achieved</td>
<td>Not Achieved</td>
</tr>
<tr>
<td>Related Topics (i.e. Legislations, Regulations and standards, urban renewal, New urbanism ...)</td>
<td>Not Achieved</td>
<td>Achieved</td>
</tr>
</tbody>
</table>

During the present era, the emerging sustainability movement has altered the course of thinking in some architectural departments. Urban design courses have embraced the new concept of Urbanization as Urbanism, New Urbanism, everyday Urbanism, and Post-Urbanism incorporating modern concerns such as the public realm, livable cities, people-friendly cities, branding the city, and creating a generic city. Although architectural planning and urbanization in Egypt continues to orient toward that in postwar European cities, numerous architectural departments are adopting new urban design movements, trends, theories, and approaches to alleviate potentially
detrimental effects on the city. The author of this study argues that Egyptian architectural educational institutions need to alter their learning programs. He/she proposes a new urban design consistent with present Egyptian city conditions.

The Egyptian Graduates’ Questionnaire

The case study is formulated on the essence of an application in urban design studios. It interviews students (200 interviewees) enrolled in respected Egyptian universities within the past decade. In 2012, the questionnaire was launched equally in four universities that located in Cairo; Ain Shams University, Cairo University, Helwan University and Azhar University. From the students’ responses to a range of questions, the study links the course contents and educational level to assess the extent to which students supplied with theoretical knowledge will gain proficiency. The case study also offers essential course content to teachers and students.

The questionnaire assesses students’ thinking at the following two levels: knowledge and intended product. The results are excellent, medium, or fair on the basis of the scale from zero to 100%. The knowledge-based questions concern various categories of information: a) Urban design definitions, concepts, history, and philosophy, b) Urban design methods and techniques, and c) principles of urban design. Product questions focus on the implications of applying theoretical knowledge to final products, assessing the extent to which: a) the semester projects are appropriate to the literary scholar’s degree, b) theoretical lectures complement practical projects, c) requirements of the projects are adequate, and d) urban design theory can be applied in the design studio. The true extent of student's learning topics is revealed (Table 2).

In addition, the results for the selected sample of graduating students are listed. The results define the global knowledge acquired at both levels of thought and reveal how learned principles are applied in urban design studios. Mostly, urban design is an artwork and scientific science. It takes all pedagogy principles discussed in several literatures (Anthony, 1991; Cuff, 1991; Koch, 2002; Salama, 2005) Teaching urban design in school of architecture is effective contribution in building and constructing cities. Conversely, urban design should not focus on problematic issue of form and morphological dimension as well as the six common dimensions that urban design comes with intellectually and practically paradigm to solve the solve and beautify cities and town. As well as architecture, urban design can have its valuable remarks on the city, unless urbanist can follow the method of synthesizing of all city contexts. The challenge is to understand the links
between the urban morphogenesis, efficiency and resilience (Salat, Bourdic, & Labbe, 2014, p. 77). This perfect framework affects the quality of urban space diversity. Salama and Wiedmann (2013) describe this process as a result of all factors within the production of urban environments.

**URBAN DESIGN REVIEW: DEFINITION AND CONCEPT VERSUS INTENDED LEARNING OUTCOMES**

A definition is universally accepted while a concept is an individual viewpoint. The present study aims for a better understanding of the definitions and concepts in urban design (Figure 2). It extends to the role of urban designer in shaping our cities and towns. This role gives the researcher an opportunity to deduce the intended learning outcome of urban design courses.

In 1980s, Bentley and others defined urban design as an art and science of building cities (Bentley, Alcock, Murrain, McGlynn, & Smith, 1985). In the second dimension, it links urban population and land use planning (Suthasupa, 2011, pp. 57-86). The third dimension is urban configuration, which considers the positive and negative impacts of urban spaces. The fourth dimension, time, incorporates the dynamics of the urban place, which underlie its character (Lynch, 1972). Urban design as a scientific art focuses on the societal, political, and economic aspects of the city, with emphasis on human behavior and consciousness (Ilewelyn, 2010). It focuses not only on traffic but also on the communications network in the metropolis; and a link to the context (Schumaker, 1971). An attention devoted to the relationship between individual urban dwellers and urban spaces. Urban design explores the site, details, and components as well as the structures, each of which integrate into an entire artificial environment.

**Urban Design in the Present Era**

Historically, urban design is the art of the city, but experts recognized it as such only since the mid-sixties of the last century, when it began to be taught as a scientific art in some American universities (Cullen, 1961). In the present era, urban design as a scientific art means to solve complex and accumulating problems. Designers organize and arrange activities on the basis of the performance of functions and appearance, paying special attention to the morphological relationships between different blocks and urban spaces. Urban design not only differs from the design of mass and landscape architectures, interiors, sites, and products but also intimately links all architectural specializations. Starting from a single piece of construction, urban design passes through consecutive specialized planning levels. City planning, townscape, urban planning, planning and design of sites, and ultimately their dynamics (Lynch regards the last as the time dimension) (Lynch, 1984) are all essential for creating towns and cities. The transition from the two-dimensional planning level to three-dimensional spatial formations at the design level requires higher skills.

The art and science of planning and designing city architectures can be conceptualized as a bottom-up construction of three main axes. First, spatial arrangement starts from a comprehension of urban tissue types and their components; uses, solid/void, and pedestrian and circulation paths. Second, blocks relate to urban spaces in terms of proportion, scale, colors, opening, texture, edges, outcropping, responses, skyline, ground-line, masses, and activity variation. Third, the temporal dimension creates a vibrant city from the constructed image even in areas of visual disturbance. From the visual experience viewpoint, developers build a city from sequential movements of various behavioral experiences. Conversely, in a serial (sequential) vision, it consists of societal scenarios formulated by events and performance, modified by the social behavior and reactions that determine its characteristics.

Hence, urban design extends the two-dimensional typology to a three-dimensional morphological urban system, including the role of lost spaces, at the levels of monuments, residences, and building blocks. It incorporates the semantic phase into the topological and morphological phases through a serial variable of conscious human experience. The relations between the individual urban dweller and urban spaces and those among the urban spaces themselves compile the meaning of the place.
The urban designer assists the urban planner in developing architectural guidelines. Namely, he/she constrains urbanization principles to instill urban character and desirable architectural features exclusive of the municipality. Special attention devoted to visual clarity, governed by factors and determinants of human perception, action, and consciousness. The urban designer also encourages private and public participation in the reclaiming process of “creation” and “rehabilitation”. Urban design uses the behavioral settings to understand the relationship between man and the urban environment, reflecting the daily personal life of individuals undertaking diverse activities (Christopher, 1977); (Puspitasari, Djunaedi, & Putra, 2012). Note that, although human behavior may be regarded as reactions toward certain actions, a single act cannot be called human behavior unless repeated regularly, at different times and places.
Today, urban design embraces several issues, including rehabilitation and reclamation of existing urban communities, preservation of historic sites, favorite places, and heritage areas, and developments in new urban growth areas, formulated under developmental guidelines (Watson, Plattus, & Shibley, 2003). Urban control must sustain the urban character and architectural aesthetics, in addition to creating a livable, city that complies with urban design principles. The modern urban design focuses on sustainability and environmental compatibility, with emphasis on environmental impact assessment and climate change, air quality, energy independence (renewable energy, uses, and transportation), water resources (water sanitation and management), and livable cities.

**Urban Designer as a Professional**

As highlighted by (Rossi, 1984, p. 34) urban designers prioritize the requirements of the community and society. He includes the technological innovations that support current perceptions of sustainable and livable cities. Rossi, also, considers a site as a) a building that reflects the truest expression of the implemented events and activities and b) the human events, activities, and their behaviors in the built environment (the context). The former is achieved through an interactive relationship between stakeholders, community, and place. From these interactions, the visual, displays of the site, shows in the building are configured; dealing with the urban environment (explore and develop) as events, activities, and their behaviors in the urban context (the place). By playing the roles of “community architect,” and “designer for the group,” (Lee & Stabin-Nesmith, 2001); (The Community Redevelopment Agency of The City of Los Angeles, 2012) the urban designer serves the needs of a diverse community by several roles illustrated in (Figure 3). For Sert the task of the urban designer “architect-planner” was to "build the frame or container within which community life could take place" (Mumford & Sarkis, 2008). This frame described by Sert can be summarized in eleven objectives. Several literatures mentioned these objectives such as (Gosling & Maitlan, 1984), (Wright, 1991), (Cuff, 1991), (Vernez-Moudon, 1992), (Lang, 1994, p. 255), (Alexander, Neis, Anninou, & King, 1987), (Duggan & Mitchell, 1997), (Ecclestone, 2001), (Gallaudet University, 2002), (Campbell, 2002, p. 9), (Creswell, 2003), (The Office of Academic Planning & Assessment, 2005), (Moustafa, 2009, p. 85), and (Larkham, 2012, p. 22). The following are the complied objectives:

- Reinforce Neighborhoods,
- Make It Sustainable
- Add Green Everywhere
- Secure The Edge
- Make Public Places
- Be Sure Rooms; indoor and outdoor; Have Views
- Finesse The Mix
- Elaborate Movement
- Localize Architecture towards city branding in metropolitan cities
- Defend Privacy
- Make It Beautiful
The Intended Graduate’s Attributes

Recalling important information about environment and human’s needs.
Exploring important information about dynamic change in the urban environment.
Solving an open-ended problem concern the way in which people interact.
Solving an close-ended problem concern how places work and how urban designers can make ‘better’ places.

Making critical judgments based on a sound knowledge base
Creating a Unique configuration to achieve democratic process.

Recalling and exploring important information about urban morphology.
Creating a Unique configuration morphology.
Making critical judgments based on a sound knowledge base of the context.
Creating a Unique fit between form and user.

Figure 3: Urban designer’s roles in the literature review versus the graduate’s intended attributes, source: the quoted citation(s) compiled by the author based on (Ministry of The Environment, n.d.); (Lynch, 1981, p. 290); (Lynch, Urban Design, 1984); (Bentley, Alcock, Murrain, McGlynn, & Smith, 1985); (Royal Town Planning Institute, 1991); (Lang, 1994, p. 255); (Rowley, 1994, p. 331); (Billingham, 1994); (Department of the Environment , 1995, p. 2); (Hirst, 1995); (Gummer, 1997, pp. 7-8); (Campbell, 2002, p. 9); (Russell, 2002); (Madanipour, 2007); (Carmona, Tiesdell, & Oc, 2010); (Larkham, 2012, p. 22); (Tibbalds, 2012, p. 12).
Table 3: Intended learning outcomes (ILOs) gained from the literature review (Source: Author).

<table>
<thead>
<tr>
<th>Intended learning outcomes (ILOs)</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Understanding Skill</td>
<td>Terms; Visual Quality, Place Identity, Sense of Place, Serial Vision, Place Meaning, Genius Loci, Urban Aesthetics, Good Building, Visual Character, Typology of Urban Areas. Selected elective topics (e.g., Urban Design Guidelines, Urbanism, New Urbanism, Everyday Urbanism, Post-Urbanism, New Theories and Realities, …)</td>
</tr>
<tr>
<td>(ii) Comprehension Skill</td>
<td>How different the urban design is?! What is urban design today? What are the responsibilities of the urban designer? Urban design dimensions Definitions, concepts and historical background How much does man appreciate the urban context? History and theories in urban design.</td>
</tr>
<tr>
<td>(iii) Application Skill</td>
<td>Urban Design Principles. Preserve and protect of the priceless heritage cities. Reclamation of the design of the built environment. Design the new environment in the urban context.</td>
</tr>
<tr>
<td>(iv) Intellectual Skill</td>
<td>Urban Morphology Techniques determining the change transformation process of urban fabrics, making sense of the historical roots of spatial city structures and bringing them to the present day.</td>
</tr>
<tr>
<td>(v) Analysis Skill</td>
<td>Generate Urban Design Principles Application, Urban Design Ideas, Application of the following in the study area: a. Morphology versus Typology, b. Design in Context (Contextualism), c. Urban infill, Collage City, Cumulative Order, Pattern Language. Master Pan Outcomes Final outcomes presentation</td>
</tr>
<tr>
<td>(vi) Process (Synthesizes) Skill</td>
<td>The general urban design process (Data Collection, Data Analysis, Literature Review, Content Analysis), Urban Rehabilitation Process, New development Process, Urban Control</td>
</tr>
<tr>
<td>(vi) Criticism and Transferable Skills</td>
<td>Post-Occupancy Evaluation (POE) for selected projects, POE for the current study project Communication skills,</td>
</tr>
</tbody>
</table>

**Lessons Gained and Graduates' Intended Learning Outcome**

This topic shows the intended learning outcomes (ILOs) of thought and application deduced from the above readings. The outcomes, divided into two levels (Table 3), will assist researchers to establish an academic module. The two levels lay on knowledge and understanding skills on one side and intellectual skills on the other side. By the end of course and through the two levels, the student has to be able to have certain actions.

According to the second part of the questionnaire, this research assesses students’ applications of these principles to the projects assigned each semester. First, the undergraduate can receive the following four fundamental outcomes: general information, dimensions, principles, and a related elective topic. In the preface and introductory sessions, students are given a solid introduction to urban design practice, with emphasis on professional practice. In a wider framework, practice empowers students with skills, visions, and ideas. Second, four key
dimensions and six derivatives for controlling urban design principles are presented: 1. Cognitive (perceptual and temporal dimensions) 2. Formation (the functional and morphological dimensions) 3. Socio-cultural (the behavioral dimension, incorporating behavioral settings and city branding), and 4. Environmental (sustaining a livable city and public realm). The questionnaires are developed in terms of these dimensions. Third, although seven stages of rational thought learning are recognized, these are not explicitly built into the course description. Table 3 divides the course contents to each of seven actions as far as possible. By the end of any course or module, the student intended to have the knowledge, comprehension, application, analysis, process, intellectual, practical and transferable skills of the selected topics that represented in (Figure 4) and (Table 4) based on the four axes.

Figure 4: Learning process (Source: author derives it from California State University, 1998).

Generally speaking, the course of urban design comprises integrated information; it should aim to provide a complete student’s consciousness toward the urban design as a scientific art. In addition, the list of the scientific literature ranked according to their relationship with the topics/project presented in the curriculum. By the end of course, the student must be able to interpret the introduction and historical background to specialized aspects of urban design and their relationships with other specialties. He/she also represent the good understanding of the role of the urban designer in building metropolitan areas. Training will be provided on the methods and techniques required for future development and rehabilitation projects. Questionnaire outcomes represent a hidden important issue related to the theoretical base related to urban design. Several contemporary trends/approaches/schools/methods techniques are missing in the academic scene. There is no indented core course of urban design paradigm.
Table 4: some of the constructive topics (Source: the Author).

| Urban Design Intended Applications on the City Scene, (Dimensions/ Principles) |
|---|---|---|---|
| a) The Perceptual Dimension | b) The Temporal Dimension | c) The Functional Dimension | d) The Morphological Dimension |
| Create a distinctive identity for the city at certain times and places. | Make continuing documentation of population patterns that use urban places. | Embrace the urban structure (Spatial Typology). | Accustom people with the societal participation and the human behavior. |
| Consider the city comes alive through the realm of juxtapositions (drama). | Design for spatial configuration as part of the Urban design process. | Define the physical aspects of the built environment effect on the human behavior. | Apply Stewardship, resource efficiency, diversity and variety, Human need, Resilience, Pollution reduction, Concentration, Distinctiveness, Biotic support and Self-sufficiency. |
| Define the principles of human cognition of the built environment. | Consider buildings that respond positively to adjoining public spaces. | Foster the dynamics of change in built environment. | |
| Analysis transformatio of urban form across time | Public space should be the bearer of an urban design. | | |
| Apply the principles; Quality, Identity, Meaning, Aesthetic, Vitality, Sense, Fit, Access, Identification, Diversity, Flexibility, Degree of self-sufficiency, Robustness, Resilience and Resource efficiency. | Promote a strong sense of community, pride, social quality, integration and self-identity (distinction/ uniqueness) |
| Select design themes and analyze the relationship between people and buildings. | The city does not complete by preparing the pattern of streets, but also adding new styles. | Aspires to shape city form by focusing on the complex relationships between the built features and space. | Configure the spatial formation, arrangement, and consciousness of the context. |
| Provide for combination of mixed uses. | Urban structure helps to define your cultural identity. | Accustom the people of enlightened with his community strategy. | Create the built environments in a way to compassionate toward urban surrounding and people’s needs. |
| perception of the physical form of cities as the conceptual basis | | Make the city structures carries the roots of a common language. | Create preferred living spaces to meet the person with his culture |
| Support emotional and psychological of the human values of belonging. | Defines the urban spaces as a series of linked places. | Respect the basic hierarchy of the urban spaces. | Foster the dynamics of change in the urban environment and adapted to respond to the people’s ways of living. |
| Create different forms of the distinct urban spaces in the city building instead of the neglected land. | | Create the different forms of urban spaces in the city building. | Realize that the important determinant of any culture is after all the spirit of place. |
| Promotes the buildings to scale and oriented towards the street. | Use the similar materials and appropriate architectural series (scale) develop a sense of place. | Support for the strategic arrangement of building forms. | Respect the planned urban structure of the vocabulary of the built environment. |
| Ensure the city not only ceases by preparing the form of blocks and streets, but also adding new styles. | | Understand the physical aspects of the urban places to see ourselves in the public life. | |
| Make a sense of place towards livable places. | Identify the role of a place over time. | Create built environments that are sensitive to context and to people’s needs. | Engages the urban context with an understanding of inhabitants needs. |
| Avoid the visual chaos imposed. | | Engages the urban context with an understanding of inhabitants needs. | Understand how people interact with the spaces creates places for people. |
| Respect the integrity (character) | Make buildings have indicative. | Ensure the interactions between | Foster a pleasant landscape environment to |

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By identifying urban design discipline, the student can understand the dialectical issue through the relationship between individuals and the urban spaces/ built environment. He/she, as well as, develops an awareness of urban space performance against real needs. Graduates will be equipped to work in both traditional areas and new settlements using the principles, criteria, and knowledge of response environment through the curriculum. Emphasis is placed on the following societal variables such as culture, heritage, symbols, values, and meanings that determine the urban character and visual element distinctive the city/town.

**URBAN DESIGN OUTCOMES-BASED LEARNING: AN INTEGRATED PROPOSAL**
The proposed urban design module suggests analyzing the relationship between man–place on one side and philosophy–theory on the other; it aims to guide undergraduates’ thinking toward creating livable places in Egyptian cities. It is noteworthy that the history of thought, paradigms, and theories of urban design is required to not only underpin the theoretical approach but also provide students with the necessary expertise to enhance their professional practice skills. The urban design can formulate an outcome-based learning syllabus. This syllabus provides a realistic vision for urban design teaching and identifies solutions to problems by applying urban design principles and criteria. To implement this vision, institutions can empower their graduates with skills for creating livable, high-quality urban environments throughout their future professional practice.

**The Module Goals**
The module proposes an introduction and historical background to specialized aspects of urban design and their relationships with other specialties. It also emphasizes the role of the urban designer in building metropolitan areas. Course coordinator presents students with urban design theories and methods that relate to the urban form. Urban form terms are introduced, along with the axes of spatial formation: organization, composition, and consciousness. The fourth dimension, time, is incorporated into the design process through the concepts of serial vision, sequential movements, and the art of relationship. Besides the target design identifies urban space categories, students will understand the dialectical relationship between individuals and urban spaces and those among the urban spaces themselves as well as develop an awareness of urban space performance against real needs.

The training will provide on the methods and techniques required for further development and rehabilitation, data collection and documentation, medium-scale site analysis, creative ideas, concept formulation, optimal design, master plans and working areas, design guidelines, and implementation mechanisms. Graduates will be equipped to work in both traditional areas and new settlements using the principles, criteria, and knowledge of environmental response acquired through the curriculum. Emphasis is placed on the following societal variables: culture, heritage, symbols, values, and meanings that determine the urban character, architectural characteristics, and visual elements of a distinctive city.

**Module Structure: Proposed Teaching Method and the Module Contents**
Generally speaking, any teaching methodology depends on the scope of work achieved by a method, tool and techniques. In urban design, process can go through methods of rehabilitation, urban conservation, upgrading, urban renewal. The wide contribution of the urban design can present design principles as the design process and analysis for responsive environment and liveable cities. The technique based on (Moughtin, 1999) can appear through data collection and data analysis techniques as well as spatial configuration and urban control (Figure 5).

The integrated courses in the target module will be taught in five stages/courses with the following graduated intended learning outcomes: knowledge, process (syntheses), intellect, professional practice, and practical evaluation. Lectures will emphasize contemporary thought, process, and product of urban design. To better understand the theories of urban design and levels of professional practice, the following issues will be discussed: a) the urban context, b)
history and theories of urban design, illustrated with examples of the built environment of cities and towns, and c) methodology as a method, technique, and their combined implementation.

Urban design courses clarify the meaning of (I) the environmental context (historical or traditional), (II) scientifically accepted points of view: theories, movements, trends, and schools of urban design, and (III) professional practice. General approaches are accompanied by questions such as “why do most people not live in livable cities?” and “how does a designer create livable cities?” Sustainable towns and cities work efficiently with residents and visitors, identify the needs of the populace and individual stakeholders (users/beneficiaries), and also meet the requirements of the community for the benefit of society. These topics will be covered in the proposed five-part urban design course as shown in Table 5.

The proposed module aims to provide students with a deep understanding of the definitions and concepts of urban design, the role of the urban city designers, and urban design in practice; the latter being reinforced by real-time examples. During the first semester, in the design studio, students will select a traditional design project and develop it through project justification, aim, goals, geographical location, site, urban context, and accessibility. In the second semester, students will undertake a development project in a new settlement and further develop an established urban zone. As they become involved in project design, they will come to appreciate the urban context. If students are allocated projects covering a range of specialties, then they will be better equipped to finalize their first-semester project.

Figure 5: Urban design scope of work in its course curriculum (Source: the Author).
**Learned Lessons**

Students of architecture should be familiarized urban design to appreciate the rapid growth of urban populations, understand historical and current policies imposed on cities, and realize how morphological changes in cities relate to theories of city form. Today, the urban design profession, needs to be clarified, and the gray area between urban planning and urban design needs to be resolved. The urban designer plays an essential role in determining the city environment. In addition, he/she can overcome the building segregation that accompanies the regulations imposed by urban planners and other designers. To the urban designer, the outdoor space is a leftover space.

Table 5: The outline of the pentagonal urban design module (Source: Author).

<table>
<thead>
<tr>
<th>Level</th>
<th>Topics</th>
<th>Urban design as a professional scope of practice, Urban Design Definitions &amp; Concepts, Historical Background.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Introduction:</td>
<td>How Different Urban Design is?!</td>
<td>Urban design today Levels of professional practice, urban designer as a community architect and the urban design dimensions.</td>
</tr>
<tr>
<td></td>
<td>Urban Design Today</td>
<td>The urban context, meaning, essence and substance: environmental factors human perception of place, exploring the urban context; making the site and the elements of the urban context. Method and techniques Methodology versus technology urban design process (rebuilt, rehabilitation &amp; reclaiming, creation &amp; formation) - rehabilitation techniques; urban design problem documentation and analysis, programs, philosophy, and development proposals; the master plan and working areas.</td>
</tr>
<tr>
<td>(2) History and Theory:</td>
<td>How does a man appreciate the urban context?</td>
<td>The merging of urban design in the European and American history of thought, views of the urban cities of architecture, urban design theories; contextual architecture, urban infill, collage city, accumulative order, language pattern, analogy, Phenomenology, Semiology, urban design theories in a new era.</td>
</tr>
<tr>
<td>(3) Urban Form &amp; Formation:</td>
<td>History and Theory:</td>
<td>The morphological appearance (dimension) and typology versus morphology Components and issues; spatial arrangement, configuration (composition) and consciousness. The human activities and types of the urban spaces, activities between static and dynamic, activities settings – hierarchy, urban spaces and circulation system, circulation patterns; vehicle- pedestrian, different between urban spaces, urban places &amp; open spaces, process of design &amp; evaluation. Urban spaces as units or in its relationship to surrounding buildings or with the elements of the natural environment, methods and ways (mechanism) to manage urban spaces (about defining, formation, design and analysis of the urban spaces, the impact performance factors of the urban spaces, design principles of urban spaces; socio-cultural, economics, politics, rules and climatic effects, valuable observation.</td>
</tr>
<tr>
<td>(4) Urban Design Principles:</td>
<td>How does a man appreciate the urban context?</td>
<td>Responsive urban environments, design Implications; legibility, permeability, variety, robustness and appropriateness.</td>
</tr>
<tr>
<td>(5) Urban Design Guidelines:</td>
<td>History and Theory:</td>
<td>Mechanism, urban control, development guidelines in existing traditional areas and new settlements and development proposals.</td>
</tr>
</tbody>
</table>

As an academic course, good urban design should apply accepted principles in each urban design studio. It should also discuss urban design problems, the typo-morphology of urban
places, and the implementation of construction/development. Ideas, notions, and concepts of urban design are validated through the development process, and personal skills are utilized to their best advantage. In this way, students are taught how to implement these ideas on urban projects. Students will present an integrated, extensively researched project in a convincing and creative way. To achieve this outcome, lessons will focus on urban design as a scientific art for both students and practitioners. Personal hopes and beliefs will be promoted as the basis of livable cities and places. Subsequently, the scope of specialization is extended from building metropolitan cities to designing places for individuals within those cities. The main tasks in urban design should be applied by practitioners at all levels, from students to established practitioners, through scientists and specialized practitioners. Before students start their career, they will be equipped with the basics, methods, and techniques of urban design, and they will acquire practical skills by undertaking term projects in the design studio and real-time practice. Specialized scopes will be placed in a broader, more integrated scope that aims to realize sustainable livable environments.

The proposed module is divided into five main levels (semesters). Students are first introduced to the visual and cognitive perceptual dimension. The second year covers the theories of the perceptual dimension. The morphological dimension at the third-level concerns theories of spatial formation. At the fourth level, students are introduced to the social-cultural dimension, which investigates the complex relationships between behavioral settings and the physical context. The environmental dimension comprises sustainability, liveability, and a user-friendly urban environment. In the final level, students will gain extensive expertise in integrated projects. These goals will be developed from learning about sustainable urban cities in the design studio, where students are introduced to sustainability, the public realm, and livable metropolitan cities. This course is suitable either for students enrolled in compendium courses with an elective design component or for those taking elective courses shared with other department’s teaching related disciplines, such as urban planning, landscape architecture, and other planning departments.

CONCLUSION:
PROSPERITY OF THOUGHT TOWARDS PROSPERITY OF APPLICATION
Cities are among the most complex structures erected by humans. Designers require not only expert knowledge of the philosophy and aesthetics of the city but also an appreciation of the ecology and waste disposal technology and a strong cultural awareness. Furthermore, urban designers cannot complete their work without the knowledge and understanding of the form of the built environment, particularly the cultural and environmental aspects of urban design solutions. Today, professional architectural practitioners are leading participants in shaping urban cities. In particular, they combine urban spaces, landscape architecture, town, city, and urban planning to the best serve the needs of the urban population. However, this ideal concentrates only on the physical dimensions of urban planning and its integration with tangential knowledge and skills, such as those of civil engineering.

In the present study, urban design is discussed as a specialized field of architecture, a society-based discipline focusing on communities, local group cares, and stakeholders. Modern design studios must extract the greatest possible visions and ideas from strategic plans. These visions and ideas must then be activated by the construction of architectural drawings that will lead to tangible results. These ideas could be attained by (a) continuous regard to the meaning, essence, and categories of urbanization, (b) awareness of the contemplative vision role of the urban designer at the urban morphology stage; visions obtained from systems analysis of the Metropolitan cities formulation, and (c) formulation of urban control guidelines that preserve the identity, personalization, and architectural characteristics of the cityscape. Furthermore, the research argues that students need to have a clear and transparent learning goal, which in return allows them to understand the instructor's educational vision. This can provide them with a clear understanding of how to improve. Writing learning outcomes in urban
design, which is a mainly accumulative-based subject, is significantly different in comparison to many problems-based subjects. The Egyptian graduates should not be far away from that current context problem in addition to, the global contribution in urban design.

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