# Studying Architectural Heritage Styles as an Approach for Developing Creative Thinking in Architecture Departments Associ. Prof. Dr. Ahmed Yehia Esmail Assistant Professor, Department of Architecture, Faculty of Fine Arts, Helwan University ahmed-yehia@f-arts,helwan.edu.eg

# **Abstract :**

The issue of interaction with the heritage is one of the important issues that preoccupy many scholars throughout the ages, especially when talking about modern architecture and how to benefit from architectural heritage models in the framework of preserving identity, and Egypt is one of the richest countries with a diverse architectural heritage, which is a cultural wealth that must be taken care of, protected, studied and utilized.

In this sense, it is necessary to study and analyze the different architectural styles in Egypt to reach new meanings that can be redrafted in new architectural formations that give a future concept to modern architecture, and to emphasize the identity and affiliation to the cultural heritage.

The research problem is the tendency of many students of the architecture departments to simulate the trends of modern architecture without emphasizing the local identity, it also monitors the performance of students in many architecture departments in architecture Studios in projects related to the architectural style of heritage, it was found that the performance of the students did not fully understand the vocabulary of those models and the students' attempts to simulate and quote the vocabulary of architectural styles were very weak and poorly studied, which limited their ability to innovate and emphasize the cultural heritage.

So, the study will be interested in research and analysis of the causes of that problem and try to find theoretical and practical solutions to that problem, especially in terms of architectural design, theories and history of architecture and complementary curricula's, and how these curricula's work in an integrated manner within the programs of architecture departments in Egyptian universities, in order to emphasize the importance of architectural heritage models in the development of creative thinking of students and how to employ them in the development of modern architecture.

# **Keyword** :

Heritage, Preservation of Identity, creative thinking, Local Identity, Architectural Education.

# **Introduction :**

Architectural heritage is a reflection of culture and cultural values that reflect the civilizations of peoples and their different characteristics. From the time of life to the present day, architectural features are a natural reflection of cultural, political, economic and social interactions at every stage of history.

Architectural heritage is one of the most important manifestations of human development in all times, and the urban environment is influenced by the needs of each stage of human

development and changes as they change, producing what we call today's "architectural heritage," which in the past was part of daily life.

Over the past century, humanity has witnessed many devastating wars that have led to the disappearance of many heritage buildings, as well as the influence of time and natural factors on the urban heritage.

With the mid-1970s, an architectural movement emerged at the hands of selected Arab architects, who had a significant and tangible influence on architectural education, most notably Rasem Badran, Jafar Tuqan of Jordan, Hassan Fathi, Ramesses Weisa and Abdul Wahid Elwakel of Egypt, Muhammad Makiyah of Iraq, Ali Al-Shaabi of Saudi Arabia and other architects distinguished by this movement at the level of the Arab States. This architectural movement has adopted heritage as an architectural model inspired by the social and cultural foundations and the surrounding traditional environment. It has also begun the process of reviving, restoring and using heritage values as well as elements of traditional architecture.[`] In this sense, architectural education is the cornerstone of the development of a generation of architects who can participate actively in the development of their society and find solutions to their problems. They also protect their material and moral potential, It is also an important and distinctive educational element, from which good experience can be gained, so greater awareness of the importance of these areas in university education in general and architectural education in particular must be sought.[<code>Y</code>]

### **Research problem:**

- The failure of certain courses in the architecture departments of Egyptian universities to attract interest in the local architectural heritage, whether in terms of courses, number of hours, scientific content or teaching methods for courses; These programmes also deal with architectural heritage courses separately, without dealing with them in an integrated manner at the level of one school year or all years in general.[r]

- The tendency of many students of architecture departments to emulate modern architecture without emphasizing local identity, as well as the lack of architectural production associated with heritage architecture and the tendency of local architecture towards alienation.

- The lack of scientific awareness of the study, analysis and use of architectural heritage and the vocabulary of heritage architecture and its cultural and scientific philosophy in the enrichment of students' projects. The problem of reviving architectural heritage is how to develop it as a tool to establish identity, character and local character in the image of sustainable urban communities.

- The lack of awareness among many departments of architecture about the importance of heritage architecture and how it can be used to develop the creative potential of students. This reflects on the development and enrichment of modern architecture.

# Importance of research :

Highlights the importance of researching the work of students in many departments of architecture of Egyptian state and private universities, noting that they often do not carry a distinct architectural language, but rather tend to emulate designs quoted through the Internet and to keep up with globalization without cultural awareness of our heritage and values that are full of architectural and construction foundations that can enrich modern architecture.

The importance of the research also lies in the need to develop creative thinking among students from architecture departments, which contributes to: reviving the local architectural heritage, producing contemporary architecture with heritage features associated with the surrounding local environment while preserving the identity of our community.

## Search goal:

- Stress the importance of raising awareness of the architectural heritage of the students of the architecture departments of Egyptian universities by increasing the space for heritage within the curricula, while developing the curricula of the architecture departments and teaching methods to increase awareness of the local heritage, as a source for students' creativity and reference for their ideas and products.

- Measuring the interest of academic programmes in university departments of architecture in public and local heritage.

- The study of heritage architecture as an educational entry point for the development of creative thinking for students of architecture departments to enrich contemporary architectural designs with heritage aesthetic values.

- Use the diversity of architecture to enrich creative thinking in the light of the emphasis on identity and preservation of architectural heritage.

- To assess the extent to which students in their designs during their studies or after graduation are influenced by local cultural heritage.

### Search hypothesis:

The search hypothesis is the following set of questions :

- How can local identity be taken into account and cultural heritage be preserved in the light of the intellectual conflict of architectural design and the acceleration of cultural and philosophical changes in our society?

- How have student trends got affected in their projects during school time or after graduation by local architectural cultural legacies?

- Does heritage architecture receive appropriate attention in the educational process to contribute to the preservation of the cultural heritage of our society?

- What are the factors influencing the intellectual orientation of architecture students?

- Do architecture department programs need to be developed to produce architects familiar with cultural heritage in their designs?

- How does globalization affect student and graduate trends?

# **Research methodology:**

The descriptive approach: begins with the theoretical study, which is concerned with promoting some of the concepts that are important and essential to the idea and context of the research. The research then monitors and tracks the academic programmes of certain departments of architecture in State and private universities in Egypt, to analyse whether or not these programmes are concerned with the teaching of urban heritage through the use of the descriptive curriculum to identify the description of the curricula of certain departments of architecture at Egyptian universities, through the sites of official universities, and to identify the description of materials interested in heritage. The study plans and teaching hours concerned with the architectural heritage are then analysed and evaluated.

**Comparative analytical approach:** by comparing programmes interested in urban heritage with architecture departments; and by developing a methodology for evaluating such programmes.

**Deductive approach:** by drawing up whether or not these academic programmes in the departments of architecture support the teaching of architectural heritage and their vulnerability to local heritage, through a questionnaire form distributed to a random sample of final-year students, they measure this and draw conclusions, in addition to analysing the impact of graduation projects on architectural cultural heritage, proposing courses on architectural heritage and recommending their addition to architectural design programs.

## The concept and importance of heritage architecture:

Heritage architecture, particularly Islamic architecture, is the identity of many Arab societies. Heritage architecture is linked to the social, cultural and economic requirements of society, local skills for building, ores and materials available for building, and to the surrounding environment and climate. So contemporary architecture, which has been associated with modern building technology and materials, building codes and the orientation of modern ideas from the point of view of each other.

The Arab architectural heritage is characterized by a wealth that reflects Islamic thought. It has its own qualities in keeping with the demands of life and the surrounding environment throughout the ages, and is characterized by distinctive design solutions in both functional and aesthetic aspects.[<sup>V</sup>]

# The revival of architectural heritage as an expression of local personality:

Heritage Revival movements have evolved in the direction of drawing inspiration from the legacies of ran and quoting from its singles and symbols, through architectural styles that reflect the specificity of the local environment and culture. One of the main pioneers of this trend is Egypt's architect Hassan Fathy and his students, like Abdul Wahid Al-Khahan and Ramy Al-Dahan.[17]

The trend has not stopped, but has evolved into an integrated system that produces patterns, and vocabulary of architecture. The heritage is inspired not by the transfer and direct quotation of forms, but by the understanding and reworking of the language and vocabulary of local styles to form a contemporary architecture that reflects the specificity and culture of society, enjoys the spirit of the times and uses its tools. One of the main pioneers of this development, is Abdul Halim Ibrahim, with the 1992 Agakhan Award-winning aquarium garden project, one of the most notable projects inspired by local heritage (Figer 1).[<sup>\V</sup>]



(Fig. 1) Al-Hod Al-Marsod garden of the architect Abdul Halim Ibrahim is a simulation of Islamic heritage architecture. Source :www.enccc.org

#### Heritage and architectural education programmes:

Architectural education programs contain a number of curricula and courses whose content and method of teaching the architectural thought of students, so that students can produce works and projects that are conscious of their local heritage, and even though students benefit from their local heritage through courses such as history, theories of architecture and others, in addition to their observations of heritage buildings on the ground, technological advances in the means of communication have contributed significantly to increasing knowledge of the world's architectural developments in modern methods and materials of construction, greatly affecting students' thinking and orientation towards universality and distance from locality and heritage in their ideas and projects. [ $\gamma \xi$ ]

The development of educational programmes in the departments of architecture is also one of the most important pillars of the preservation of the physical identity of communities. It must therefore be compatible with the variables of different communities. Periodic reviews of the curricula must be conducted to monitor their assimilation to different variables and to develop concepts for updating them in order to conform to the requirements of development and preserve local identity.[ $\gamma \circ$ ]

#### Heritage, components of the educational process and its role in shaping student trends:

The educational process affecting students' mindset consists of curricula and teaching methods, faculty and associate trends, environment and educational spaces.

The study is concerned with curricula, teaching methods and faculty trends.

## A -Curriculum:

Some courses in architectural education form the basis for the presentation of local and heritage architecture, such as history of architecture or preservation courses. However, all design courses with more hours are important breeding grounds for students in their projects. Many scholars have pointed to the value of studying the history of architecture and civilization for students of architecture departments, since historic buildings have great attractiveness and impact.[<sup>Y</sup>Y] Conservation decisions are also considered to support heritage architecture and the importance of preserving it, and conservation decisions need to be linked to many of the Architecture

Section's decisions, by linking theoretical ideas to practice on buildings that already exist. International theories on the preservation of heritage buildings should be made known, with a view to reducing the gap between conservation decisions and theoretical and practical aspects. The creativity of students can also be developed by providing practical training within the course of their studies in heritage management as part of the study plan so that students learn applied practice and gain knowledge of professional friction, so that they become better practitioners after graduation.  $[\Upsilon A]$ 

# B-Teaching methods and trends of teaching and associate staff:

Different teaching methods are the most important in the educational process; By using different and innovative teaching methods, a member of the faculty has an effective impact on the achievement of the desired course objectives, this attracts students to attend courses and motivates them to innovate in their projects.

Architectural education programmes must also present the history of architecture courses from a theoretical point of view, not only through a review and study of formality so that scholars can derive the values that are consistent and that can be used in the long term.

In teaching design courses, some faculty members are keen to guide students towards creativity, which depends on producing work that is unique only without sufficient attention to content. The desire to do creative work sometimes leads students to distance themselves from local architecture, since it is a familiar architecture of society and design in its astronomy will not produce creativity from their point of view. In return, they seek new and exotic Western architecture, forgetting local cultural, community and environmental values in the process.[<sup>Y 9</sup>]

## Case study:

The research methodology deals with applied study in the following points:

- 1. Analysis of study programmes for architecture departments in some State universities.
- 2. Analysis of graduation projects.

3. Analysis of a questionnaire aimed at the final year of the Architecture Department program.

# **1.** Analysis of study programmes for architecture departments in some State universities in Egypt:

The aim of the study is to measure the interest of the departments of architecture in the study of heritage by accessing the official website of universities, identifying the description of their architectural education programmes, and monitoring whether they are concerned with World Urban Heritage in general and local heritage in particular, in addition, the proportion of hours of these materials in relation to the total hours of the programme is determined by a numerical scale to evaluate the programmes of the departments of architecture of some State universities (the two-semester system).



(Fig. 2) Number of heritage courses in university departments of architecture - Source: the Researcher



(Fig. 3) Evaluation of heritage courses in university departments of architecture- Source: the Researcher

## 2. Analysis of graduation projects.

The analytical study of student graduation projects in the Departments of Architecture of State and Private Universities examined the experience of the researcher through co-supervision and arbitration of graduation projects for both the Department of Architecture of the College of Fine Arts and the Higher Institute of Engineering - El Shorouk Academy, In addition, an analysis of the extent to which graduation projects have been influenced by the cultural heritage of architecture over the past four years, a review of the quality of projects and sites under the programmes of the departments, a review of some of the distinct models of student production and an identification of the proportions and quality of heritage projects for the total number of students.





(Fig. 4) Number of heritage projects for total graduation projects - Fine Arts& El Shorouk Academy In the four years. - Source: the Researcher



(Fig. 5) A cultural centre in the Bab Zawam region- Fine Arts Y . 1 V/Y . 13- Source: the Researcher



(Fig. 6) A handicraft centre in Aswan – El Shorouk Academy. Y · ۱۹/Y · ۱۸ - Source: the Researcher

# 3. Analysis of a questionnaire aimed at the final year of the Architecture Department program.

The questionnaire targeted students in the final section of the Department of Architecture at both the College of Fine Arts and the Higher Institute of Engineering at Sunrise for the academic year 2020/2021. The questionnaire addressed the questions under three main groups:

- The first group is concerned with the interests, tendencies and trends of the student in the field of architecture.

- The second group is concerned with study programmes, curricula, teaching methods and faculty trends.

- The third group is concerned with the process of outward openness and globalization in the field of architecture and its relationship to our heritage, architecture, and society.

# **Results:**

- It is only through an educational system that emphasizes the importance of heritage and its role in society that architects will be able to deal with it in a conscious manner.

- Effective teaching methods are the most important in the educational process; By using creative teaching strategies, a member of the faculty has a significant impact on the achievement of targeted educational goals.

- The attractiveness of students, their interest in courses, and their ability to innovate in their designs depend primarily on the different teaching methods used by a faculty member to teach subjects.

- The use of cultural legacies is a great challenge that requires the stereotyping of cultural legacies to go hand in hand with modernity.

- Many of the students in the architecture departments show the architectural thought of the current buildings that mimic the heritage in our society is mediocre and superficial, while part of the sample shows that it represents a disdain for the lineage and relationships of different models.

- The proportion of graduate projects interested in the vocabulary of heritage architecture is small compared to that of modernism.

- Highlights the importance of university architecture departments as they contribute to supporting local heritage by upgrading their students' competence in dealing with urban heritage in proportion to its importance.

- Technological progress and recent trends in architecture are indispensable, but they must be used well as a tool for the preservation of identity in ways appropriate and consistent with the current physical environment, by moving towards architectural designs relevant to the history, environment, culture and civilization of the place.

- Many students find that the use of heritage architecture in their projects runs counter to creativity, as a result of a lack of understanding of this vocabulary, as a result of the severe lack of scientific content and teaching methods in heritage materials in many of the university's architectural design programs.

- The trends of faculty members have been significantly and fundamentally influenced by the orientation of students towards architectural heritage, and the trends of modern architecture among many faculty members have caused a large number of students to be reluctant to move towards heritage projects or work in historical areas.

- Globalization plays a major role in moving away from the use of cultural heritage, despite the students' knowledge and awareness of its value and the importance of preserving it and preserving the identity of the region.

# **Recommendations:**

- The need to discuss the importance of the preservation of urban heritage and the mechanisms for its application by the authors of study programmes, with emphasis on placing the preservation of cultural heritage among the main objectives of the programmes of the departments of architecture of universities and engineering institutes.

- Architecture departments have to take an interest in urban heritage in practice and not only in theory, emphasizing this in design courses from the early years to establish this concept for students during their studies.

- The need to link the concept of creativity in design materials to students' physical heritage, and not just to use the vocabulary of contemporary architecture, some of which do not fit our local environment.

- Students should be encouraged to use the urban heritage in their graduation projects with a view to emphasizing local identity, and the final experience of the education programme for a segment of students should lead the rest to emulate them professionally after graduation.

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- Promoting heritage awareness and emphasizing the preservation of architectural identity, through meetings with interested and distinguished architects and students of architectural departments.

- The departments of architecture should focus on teaching heritage-related subjects such as building techniques, local materials, their characteristics and how to develop them in line with our current requirements.

- To work towards the development of teaching methods for heritage-related materials and to intensify field visits to these materials in order to link theory to practical reality in order to achieve the highest utilization of such materials.

- Interest in linking graduate projects to construction in areas of historical and heritage value so that students can be trained to deal with these sites and understand their dimensions and building techniques.

- The need to develop the creativity of students by providing practical training within the course of their studies in dealing with heritage as part of the curriculum so that students learn the actual practice.

- The need for architectural education programmes to present architecture history courses from a conceptual point of view, not only through a review and study of formality, and so scholars can derive constant values that can be used in the long term, no matter how much time or space changes.

- Graduation project designations should be linked to heritage architecture such as Islamic museums, craft centre and cultural centre.

- Emphasizing the importance of adding specialties in architecture departments in some universities that are concerned with heritage, documentation, conservation and rehabilitation, and policies for dealing with heritage areas, materials are also added to the rest of the architecture to serve heritage and the use of heritage vocabulary in architectural design and urban planning materials and courses.

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