# RESEARCH ARTICLE

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# Improving the Role of Universities in Conserving the Architectural Heritage

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#### Abstract

Universities are known by their significant role in forming the cognitive and educational minds. This paper focused on improving the role of the universities in conserving the architectural heritage through developing an effectivefertile research system that plays a major role in building the necessary programs planned for the architectural heritage conservation. In this paper, a methodology was proposed including archeological survey a documentation of the registered and unregistered historical buildings and archeological sites planned by the local universities in order to come up yet with a reliable source for the status of those historical buildings and sites and improve the universities role in conserving the architectural heritage especially on the research and documentation part of the conservation process.

Keywords: architectural heritage, conservation, universities, archeological survey

# I. Introduction

At any place on earth, there is a vast range of historical monuments which belong to the different time eras. Most of those buildings, which form the global heritage, are seen as significant factors affecting the formal and academic levels. All of the buildings types including; the religious, residential, commercial, military, community services and other are exposed to neglecting, bad services, trespass and sometimes to destruction [1]. There are many reasons behind rising of such problems; one of the most common is the wide distribution of those buildings in the centers of the historical cities, which have been exposed to the urban development. This development is the main reason behind changing the architectural identity of those cities and losing their original character and soul [2].

This abuse to the historical buildings and archeological sites has no justification. This issue has to be handled by all the levels of the community and the related authorities. From this point, the importance of the universities is raised to meet up with the requirements [3].

The architectural heritage conservation is one of the issues that have been discussed lately. Many researches have been focused on the importance of conserving the architectural heritage and the ways that have to be followed to this [4].

According to [5], universities are considered as one of the most effective global institutions. When they designed properly, they will create a unique contribution on the global society. Universities are generally neutral conveners, talent assemblers and consummate idea factories. Based on this significant

role they play, universities have been used as tools in the hands of the higher authorities, local communities, specialized organizations and agencies in order to achieve their goals through feeding the minds of young people [6]. Furthermore, the role of universities is not excluded on their influence on the students, their wide range of activities, libraries, published researches and connections with all the levels of the country are contributing on reinforcing the status of universities [5].

Generally, universities are involved in the issues facing the communities they belong to. This involvement includes absorbing the culture and heritage associated with it. In this paper, a method will be proposed to enhance the role of the universities in the research and documentation part. The following section shows a proposed framework to do so

Proposed framework to improve the role of universities in conserving the architectural heritage. This study is based on a set of recommendations in order to improve the role of universities in conserving the architectural heritage. The main proposed role of the universities, depending on this framework, is summarized in the research and documentation stage. The following steps can be followed to establish a program to achieve the previous target (\*):

 Developing the cultural documentation techniques, by using the advanced techniques including the geographical information system and open horizons of cooperation with the national and international specialized organizations and associations.

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- Build a comprehensive information base that is specialized in both sites and buildings, where it will be the core of a specialized scientific center that is concerned about documenting, surveying and registering all the sites of the natural and cultural heritage such as the Ukrainian center, which is called the heritage documentation center.
- Train the students and the working technical employees in the field of heritage in the associations, municipalities and the related collages. This training should include using the new and advanced technologies that are utilized to conserve and document the architectural heritage.
- Working on spreading the knowledge about the importance of the architectural heritage through the various types of media, besides constructing new websites and publishing books.

# II. Project stages

- 1. Surveying and registration
- 2. Documentation
- 3. Maintenance, Rehabilitation and employment

The first stage (surveying and registration) is conducted through a method that covers the archaeological survey. Archaeological Survey is defined as the process where a number of sites and buildings that are belonging to a particular time period and distributed on a specific geographical area, within an arena timeframe for the different chronological ages, whether they are ancient or relatively modern.

# III. Stages of the Archaeological Survey

- The initial survey

This survey includes a preliminary inventory for what is existed in the related circles and the different services. This step aims to construct initial lists for all the sites and archeological buildings. Then, those buildings are enumerated and classified; a brief about each building is prepared based on the available sources and references. All of this is offering a preliminary data base that can be used as a new start for a wider base to accommodate the work progress.

Then, a comprehensive survey for the archives that are existed with the authorities that are concerned about the archeological works is surveyed. Those authorities usually save a special file for each registered heritage, those files offer also rich information about the archeological sites and buildings that are not registered yet. They contain the order of registration for each heritage and some historical and archeological information besides some plans and photos.

Those file are different from each other in terms of the information size, depth and accuracy. However, they have to be reviewed in order to understand the available information about the building or the cultural heritage and to figure out whether they are registered or not. Through reviewing the special files, any shortage can be known in order to be covered. From this survey, a numerical count can be made for the number of the registered buildings. Through reviewing a large number of files, an information card can be designed, where all the mentioned data in each file is listed. This information creates a data base for each building and ease finding the shortage that has to be covered in each file.

This survey should include reviewing the documents, sources and references that have been discussing this heritage if they are exists, and putting information cards and gathering those information within cards that contain the scientific material besides the name of the source or reference and a documentary information about it, or even cover the missing scientific information in some of the files.

# Field survey

This type of survey is the most important part of the survey; this survey has to be organized and systematic, where the accuracy of its results is in accordance with the accuracy of its organization and plans. It is noticed that this type of survey needs several requirements in order to deliver countable results to the various requirements that have to be available where it can be summarized into two main special capabilities:

#### A. Human capabilities

- 1.The work group that has the responsibility of surveying is specialized in the archeological work (architecture, archeologists, historians, etc.) who are specialized in the different historical periods and have enough experience, qualification and accuracy that enables them to perform their work in the most efficient way.
- 2. The mission has to include a topographic engineer that is responsible for the topographic survey for the required places. This engineer has to be professional in using modern surveying equipmenthe has to have the proper vision and an experience in utilizing that equipment in the field of surveying work.
- 3. The mission has to include an architect that is well-trained on modeling and engineering drafting, and it is preferred to use who has a previous experience on the archeological work.
- 4.The mission has to include a professional photographer, who can work professionally on the images editing, processing and rendering softwares, and it is preferred to use who are specialized in the archeological work.

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#### B. Technical capabilities

- 1.A suitable transportation way for such archeological survey missions.
- 2.A number of advanced surveying equipment such as; GIS and GPS
- 3.A number of advanced computers and their essential supplements including the specialized softwares in processing the results of the advanced surveying equipment.
- 4.Engineering tools and suitable photographing equipment.
- 5.A number of maps for the areas that are about to be surveyed. Those maps have to be on a scale of 1/5000.

Classifying those sites and buildings has to be according to the following categories:

- Historical classification: this classification is done according to the historical eras and the different periods of time.
- The functional classification: this classification is made according to the type of the function that the building was built for, this step is made by reviewing the foundational texts and the historical references, if they are exist.

It is necessary to prepare a specialized form for every site or building, where it has to be carried by the surveying group during its visit for the site or building about to be surveyed. On this form, the surveying mission will list the required information on the site, where those forms (a form for each site or building) are collected on a specialized archive that is classified according to the geographic distribution and divided according to the main cities, areas, suburbs and villages.

The surveying should include all the registered and discovered(unregistered) buildings in order to track the existed situation of the buildings and specify the changes that have applied on it, besides completing the specialized file for each surveyed building and estimating the maintenance and conservation requirements that are needed by each building.

For what regarding the founded buildings or unregistered buildings, both the individual ones and groups, the initial form has to be filled then, a file will be prepared for each one in order to prepare its registration decisions according to the work method that is followed on such organizations.

The expected results from the general archeological survey:

- 1.Find the total number of the archeological sites and buildings'
- 2.Understand the architectural and structural status of each site or building then, specify the requirements of the maintenances and

- conservation. This will lead to ease the financial estimation that is required for protecting and rehabilitating every building, those remaining buildings can be categorized into:
- a. Bad reserved buildings: those buildings need emergency procedures then, a comprehensive restoration plan.
- b. Medium reserved buildings: in this case, emergency procedures are not needed, however, it is important for those to be involved in a comprehensive restoration plan.
- Newly preserved buildings: those buildings are in a good shape and have the ability to start employment.
- 3.Register as many as possible of unregistered buildings and sites and add them to the enormous number of archeological buildings and sites that have to be preserved.
- 4.Remove the archeological character on some of the registered buildings if they have undergone of some changes that have taken its archeological features.

#### IV. Conclusion

Universities have a significant role on affecting the way of thinking and change the common thoughts and trends prevailing on the communities. Proceeding form the importance of the architectural heritage in conserving the heritage, culture and history of the old and current civilizations, the role of the universities, as a key players in the communities, has to be improved.

This paper focused on improving this role based on the nature of the universities outcomes. A framework was proposed in a form of a project that is based on a comprehensive archeological survey for the historical buildings and archeological sites in order to form a detailed yet reliable source of information about the status of this heritage in order to be able to register the changes that have been happened to it.

This project targets to conserve the urban and cultural heritage in all the available scientific and theoretical ways. This work requires a concerted efforts and enough time in order to come up with the best results. Such works needs a specialized team in the research and documentation works, where the universities are forming the most suitable environment for it. When the interested universities are supported to do this job, their role will be uplifted to meet the requirements.

#### V. Recommendations

Universities have to be involved in the decision making especially those decisions that are related to

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the international heritage conservation. On same side, students must be involved (on the practical part) in all the works that are done by the specialized authorities. In addition, all the proposed projects that is interested in documenting the architectural heritage and generalizes it on the working agencies in the documentation and conservation of the archeological heritage.

The previous experiences of the developed countries in the field of theoretical and practical experiments have to be taken into consideration.

The last recommendation is to participate in building new academic institutions specialized in the same field like the ones in France, Italy, Ukraine and some other countries.

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(\*):This work was based on a scientific academic research in collaboration with the experiences of the employees of the Directorate of buildings and archaeological documentation in the Directorate of General of Antiquities and Museums in Syria.

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