

A STRATEGY FOR PRESERVING URBAN AND ARCHITECTURAL HERITAGE IN THE HERITAGE CITIES OF HADHRAMOUT REGION, YEMEN

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ABSTRACT

The region of Hadhramout is rich with many architectural heritage sites. It is the heritage of its nation and civilized people whose history has witnessed the greatness of its cultural achievements throughout its long history. Some of this heritage sites has been able to survive. While many of them are threatened with danger either by falling or disappearing, or by many other factors including: tampering and intentional or unintentional negligence, as well as the modern urban

creeping, or because of disasters such as heavy rains and torrential floods, wars and earthquakes, the thing that makes Hadhramout and its historical landmarks went into the grip of destruction. In this context, the aim of this paper is to take into consideration the dangers that threaten our architectural heritage, especially in the region of Hadhramout, which is rich with heritage buildings that are currently in catastrophic conditions. It also aims to take preventive measures to save what can be saved of this heritage so that it can survive and last for a long time. This paper focuses on dealing with heritage cities by reaching an integrated strategy for the management of the architectural and urban preservation of these cities, which constitutes a good procedure to reduce the deterioration that has affected our civilization heritage by laxity, extinction and demolition. It was, therefore, necessary to delve deep into the study and the problems that these regions suffer from and the violation against heritage values as well as mismanagement of heritage buildings because there are no regulations and legislations against their misuse and abuse. Therefore, the main objective of the study is to

highlight these problems so that the goal becomes clear; i.e., the legislation of controlling regulations to deal with those areas regardless of place, time and society as to preserve the legacy of future generations and recollection of the place. Therefore, the study followed a clear methodology in which it deals with previous studies and shows positive and negative aspects of the issue in question in an inductive method. Besides, the study makes use of other instruments which include the analysis, photographing, and spatial presentation of the experiments to form a clear picture and a broader framework of the study vision. Consequently, the results appear in the context required for the development of regulations and procedures to ensure the implementation of compatibility projects to control the demolition of heritage buildings, changing them, constructing new buildings, or changing the general landscape of the areas or the site of urban heritage as to comply with the vision of the authority responsible for following up the regulations of preserving urban heritage. This can be achieved with taking into account the integration and harmony among these buildings as a combined heritage site and as one of the most important principles of dealing with the traditional fabric that cannot be found in most European cities. In conclusion, this study seeks for certain guidelines in the form of a strategy for preserving urban and architectural heritage in the heritage cities of Hadhramout region.

KEYWORDS: Preserving, Architectural Heritage, Modern Urban Crawl, Heritage Cities.

INTRODUCTION

The strategy of architectural preservation is regarded as an integrated and sustainable process. This process should not be confined only to the processes of restoration, preservation, conservation or even re-construction of some buildings. Heritage Environments have long been characterized by many social, architectural, cultural, and economic values. Thus the preservation process must encompass all other aspects of life in these environments, which are among the most important features that have characterized these regions throughout the ages. Therefore, we note that the heritage cities and villages in Hadhramout province were characterized with more functionality than other Yemeni cities and villages and other world countries. They are characterized with cultural heritage in the form of heritage cities and villages, which were left behind by various civilizations, and were proceeded by the beginning of prehistoric ages, through ancient civilizations and up to Islamic civilization.

These civilizations have resulted in different forms of heritage cities whose architectural characteristics have been influenced by the factors existed in each era of civilization. The

preservation of the architectural heritage of the heritage areas, in the form of an employment of the heritage values which are included in the heritage environments, without distortion of any of these values and in a scientific and administrative manner, works to revive the heritage and societal values of these environments.

The Problem of the Study

The architectural and urban heritage is exposed to many problems that negatively affect it at the materialistic and visual levels or both. The thing that in return ultimately lead to the destruction and the loss of this heritage both in the short and long term. Consequently, these problems and their main reasons should be identified as one of the primary approaches in dealing with the heritage and preserving it. These problems can be classified as follows:

1. Problems related to human work.
2. Environmental problems.
3. Economic problems.
4. Political problems.
5. Organizational and technical problems.

First: Problems Related to the Human Factor

These include

1. The migration of original inhabitants of the heritage areas to other modern areas due to the inability to meet the basic requirements of the population in the heritage areas
2. The misuse and feeling indifferent towards these buildings as a result of the cultural, educational and civilization low level of the inhabitants of these areas.
3. The neglecting of the periodic maintenance work necessary to maintain these buildings as a result of the low economic level of the population and their inability to afford high maintenance expenses.
4. Paying more attention to the heritage buildings as separate units from the surrounding urban framework.
5. The lack of utilizing some buildings due to their poor condition or the migration of their owners to another place.
6. Infringement of the architectural style by intervening to delete or modify some parts of the heritage building.
7. Adding technological innovations such as air conditioning units or units of light and the like.

8. Conducting the maintenance work of which has not been studied well, such as the re-finishing of the facades in non-considering and non-technically-approved ways.
9. Poor understanding of the aesthetic and historical value of the heritage building.
10. Non-commitment to follow the international scientific requirements in the maintenance and restoration of the heritage buildings.

Second: Environmental Problems

1. The change in the groundwater fluctuation.
2. The sudden natural phenomena such as earthquakes, heavy rains, cyclones, ..., etc.
3. Non-resistance of the materials used in the heritage buildings for gases, fungi, bacteria, ... etc.
4. The continuation of the expansion and shrinkage processes resulting from the continuous changes in temperature.

Third: Economical Problems

1. The increase in the value of land in cities, especially downtown areas.
2. The Lack of funding sources necessary for projects to upgrade the heritage areas at the urban and architectural levels.
3. The lack of government capacity to upgrade these areas because of the lack of sufficient budgets and due to considering upgrading such areas is unnecessary, especially in the developing countries.
4. The lack of alternative housing units or adequate financial compensation for the people who have the desire to remove from these areas.

Fourth: Political Problems

1. The Absence of the laws and legislation necessary to preserve the heritage buildings, especially in relation to the surrounding buildings.
2. The law deals with the heritage buildings with the same provisions used to deal with the modern buildings despite the different nature of each type of these buildings and their surrounding environment.
3. The absence of legislations that regulate the role of local authorities in the municipalities in the maintenance of valuable and architectural buildings in addition to the protection of their surrounding environment.
4. The absence of laws and legislations that organize the construction works in the historical heritage areas.

Fifth: Organizational and Technical Problems

1. Some state agencies rent heritage and historical buildings.
2. The lack of qualified and trained technical staff that are capable of implementing or following up the implementation of conservation projects in heritage areas.
3. The absence of technical bodies and institutions specialized in graduating specialized workers in the architectural restoration.
4. Allowing the entry of automatic transports of all types and sizes (buses, cars, motorcycles) to the historic areas, the thing that causes severe damage to them.

The Purpose of the Study

The study aims at the urgent need to aspire to a new thought of an integrated strategy to manage the conservation system of heritage cities. Such strategy does not only seeks to stop the destructions of these heritage buildings, but it should also provide the elements of communication to work on the continuation of the process of preservation automatically to ensure its safety in the long term. In this context, the study purpose is to seek an integrated strategy for the management and maintenance of heritage cities architecturally and urbanely and preserving them.

The Methodology of the Study

The study has a straightforward methodology in which this research deals with previous studies by highlighting their positive and negative aspects in an inductive approach. In addition, the study has implemented different tools including the analysis, and the visual and spatial presentation with regard to the experiments done in this study as to form a clear view and make a broader framework of the research vision. Consequently, the results in the context required would help in the development of regulations and practical procedures to ensure the compatibility of the inductive and practical methods between two parts of the research paper as follows:

Part I: The first part deals with the fundamental definitions of the architectural and urban heritage, highlighting the factors and problems being faced due to the current situation. Further, the research discusses the role of official and non-official bodies in dealing with the architectural heritage and its development in order to derive the main factors for the formation of heritage domains.

Part II: Presentation of the most important policies for the promotion and preservation of heritage areas.

The Urban Heritage

Abd al-Jawad (1987: p. 160) states that urban heritage is the "reflection of the past and its history whose time has folded its details and which reflects the unique status of nations by showing their belonging to a certain place and an era of time". Al-Wa'ra, (1993) defines urban heritage as "the production of a period of time that lies in the past and separates it from civilization as a time-span during which a cultural identity was formed". Besides, Al-Shahat (2003: p.18) defines urban heritage as "a historical and artistic document and part of the political, spiritual and symbolic heritage which is the cultural truth and its continuity". It is defined by the International Public Sector Accounting Standards Committee as "the assets of trade, environmental or historical importance, including buildings, historical monuments, geological sites and environmental zones for the protection of nature, creatures and works of art."

As for the urban heritage, it represents every urban heritage that reflects the characteristics of urban Hadhrami civilization and represents the product of one of the historical episodes that has been experienced by the Hadhrami nation and the legacy of generations through the ages. Besides, it is considered a heritage for all the people of Hadhramout. The ancient cities represent a cultural heritage full with its historical dimension, its distinctive lifestyle, and its cohesive urban texture. Consequently, the importance of ancient cities emerges from the fact that they are the product that contains successive strata of human history both naturally and morally.

The rehabilitation of urban cities and their integration into the urban environment in an effective manner ensures the continuity of the civilized role of these cities and preserves their resources and helps to overcome some of the economic problems. Thus the remarkable growth in tourism has drawn attention to the old cities. This trend towards the creation of heritage cities for tourism investment requires a strategic plan to ensure the greatest possible strategic success for the development of historical heritage old cities. This plan must be based on the idea of sustainable development as an input to maintain and rehabilitate these old cities.

The Policies for Upgrading Heritage Areas

The policy of upgrading heritage areas is considered as a policy for a comprehensive development of heritage domains in all their aspects according to the circumstances of each domain and the strategy of upgrading applied in it. This section will present the most important and prominent policies, especially those regarding the heritage domains located in the heart of the old cities.

1. The conservation to upgrade heritage domains.
2. The re-utility of heritage and considering it as an integral part and a gateway to upgrading.

Introduction to the Preservation of Heritage

The historical preservation aims to preserve the continuity of both the society and the historical image that has been constituted by its elements. Lynch has pointed out that conservation aims at developing our sense of history and enriching our perception of time. The concept of conservation can thus be understood as the process that includes all procedures and methods that ensure for the heritage to stay as long as possible to play a vital role in the life of the community that coexists with it. Therefore, conservation process can be divided according to its criteria and objectives into two main levels:

First: Architectural Conservation

It is the process of protecting installations and architectural constructions with historical, cultural or visual characteristics, etc. Further, it means to maintain and repair them to remove the distortion caused by the change of the surrounding urban environment.

Second: Urban Conservation

It refers to the conscious administration, which sets out strategies for the care and maintenance of the urban architectural fabric with the heritage nature, represented in the formation of heritage constructions, urban spaces, public squares and coordination of sites, in order to ensure the sustainable use of the urban fabric heritage. Besides, conservation, in general, is primarily concerned, at the architectural level, with the preservation of heritage areas with the historical and urban values, whether at the urban level or the level of architectural constructions. The objectives of urban conservation of the heritage areas, can be divided according to the main objective into the followings:

First: The Aesthetic and Symbolic Objectives

- Protecting heritage areas from degradation.

- Preserving the characteristics of the city with its old areas and buildings.
- Finding suitable solutions for the reciprocal relations between contemporary and heritage buildings.

Second: Historical and Cultural Goals

- Preserving cultural continuity through the transfer of cultural and civilizational meanings across generations.
- Avoiding making a gap in the continuity of the city as an evolving figure and maintaining its historical span.
- Preserving a distinctive urban fabric that represents the accumulation of human creativity through the ages.

Third: Social Objectives

- Raising awareness of the importance of heritage roots and the best way to deal with them.
- Developing public participation programs and encourage self-help.

Fourth: Economic Objectives

- Development of tourism resources.
- Providing a part of the financial resources needed to finance conservation and maintenance programs.
- Restoring and reconstructing heritage buildings.

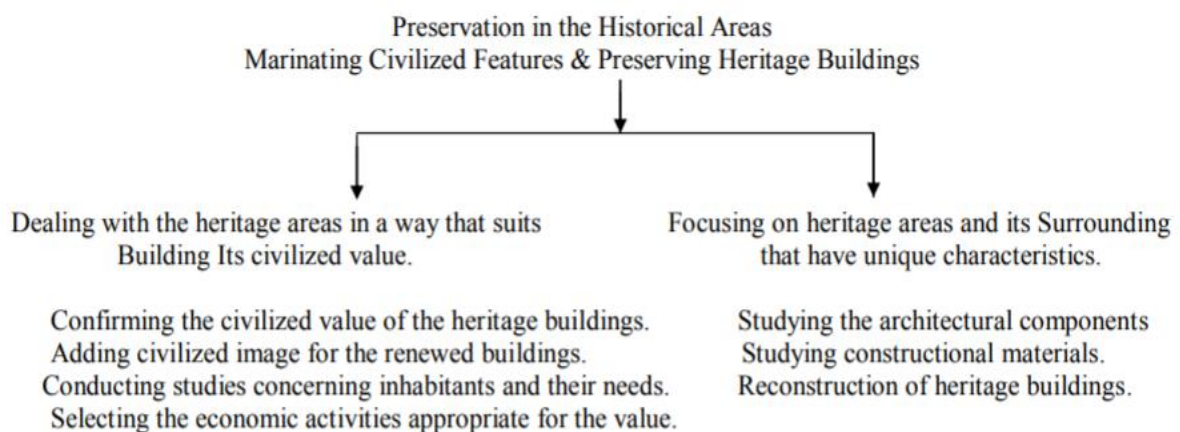


Figure 1: Flow Chart of Preservation in the Historical Areas.

The Reuse of Heritage and Utilizing it as an Integral Part and Gateway to Upgrading

The economic factor cannot be neglected as one of the most important factors affecting the upgrading of heritage areas, especially in the Developing Countries, whose budget is unable

to provide the necessary funding to upgrade their heritage areas. Therefore, there is a need to find other approaches to upgrading through the provision of self-financing for these projects by restoring the heritage buildings to the space again, either by reusing it in the same original function or by re-utilizing them in another way appropriate for their potentials.

• Improving the basic Environmental net	The environmental aspect	The comprehensive concept of re-utilizing process of historical buildings.
• Reducing the Pollution rate	The architectural aspect	
• Improving the architectural style of the buildings and the ruins	The Urban aspect	
• Mending the constructional form for the buildings	The social aspect	
• Improving the urban environment and planning the location.	The economic aspect	
• Improving the environmental living status for the inhabitants.		
• Raising the level of inhabitants' behavior and customs and developing the civilized concerns within them		
• Raising the inhabitant's economic level by improving their products and finding new job opportunities for them.		

The major aim of re-using of the heritage buildings emerges from the need to preserve such buildings due to its historical and aesthetic value. This aim can be achieved through the followings:

1. Providing an adequate return to cover the costs of maintaining these buildings and creating an economic base for heritage areas.
2. Reintegrating the heritage building with the current environment by utilizing it to serve the needs of the surrounding community.
3. Finding a kind of concern between the heritage building and the people who deal with it.
4. Providing the heritage areas of the old and degraded neighborhoods with the necessary services without the need to construct new buildings.
5. Establishing a permanent supervision of these buildings by the users and the beneficent.
6. Raising and supporting the total value of the heritage building.
7. Exploiting the ruins and heritage areas as tourism attractions and investing them for the development of the urban environment.
8. Ensuring the continuity of maintenance and cleaning work, etc.
9. Participating in the development of the surrounding community in order to support the preservation of the heritage and urban style of the region.

Cities of Hadhramout Region

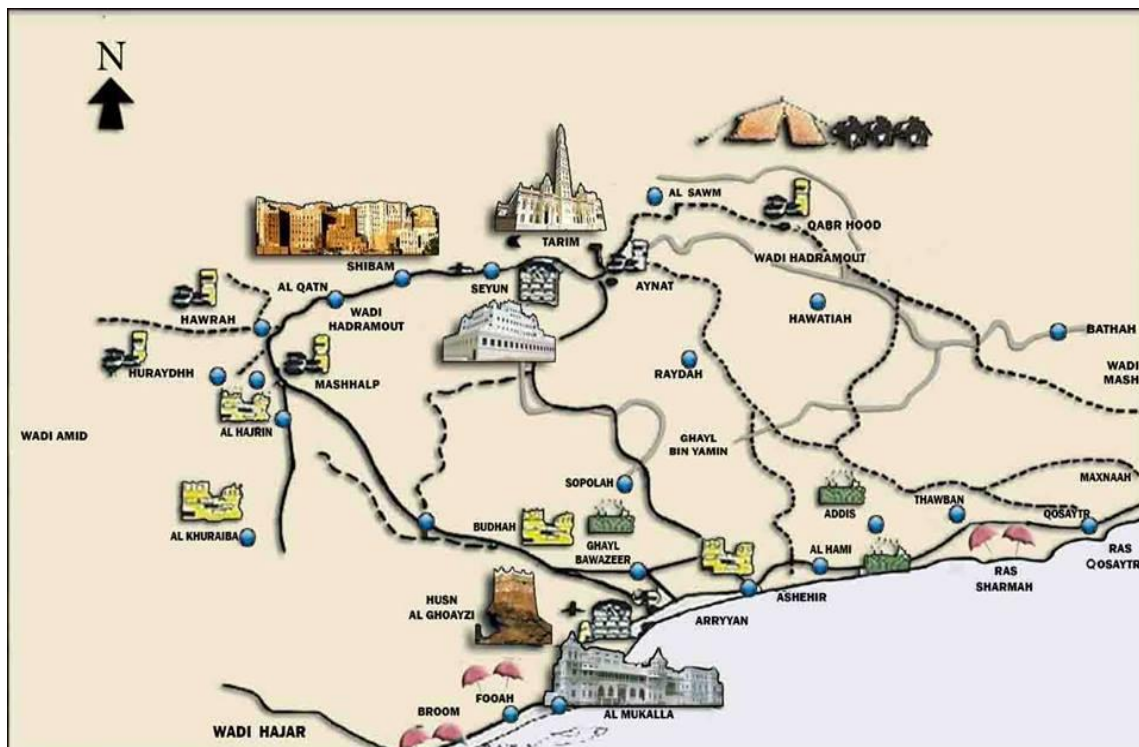


Figure 2: Map of Historical Cities of Hadhramout Region.

Conservation of Old City Shibam

There is an ancient city in the middle of Wadi Hadhramout called Shibam, whose existence is virtually comparable to the ancient Babylonian and Sumerian cities. It is located approximately 600–700 meters/1900–2300 feet above sea level. Villages and cities located in the valley surround by for tress. A clay-brick for trees wall (*sur*) ranging between 5 and 9 meters and 29 feet in height; was built along its southern part that runs through Wadi Hadhramout, which separates it from the coast (*sahil*) of the city Shibam. During the 4th century BC the city of Shibam played a key role as the capital of Wadi Hadhramout. In addition, the city is distinguished by being an important commercial center in the area during the pre-Islamic period, having the wall (*sur*) of the valley, being commercial capital, and a assembly-point for the caravans of the tribes of the valley as well as the tribes from the north. Today Shibam City enlisted to UNESCO heritage lists.



Figure 3: Map of Shibam city.

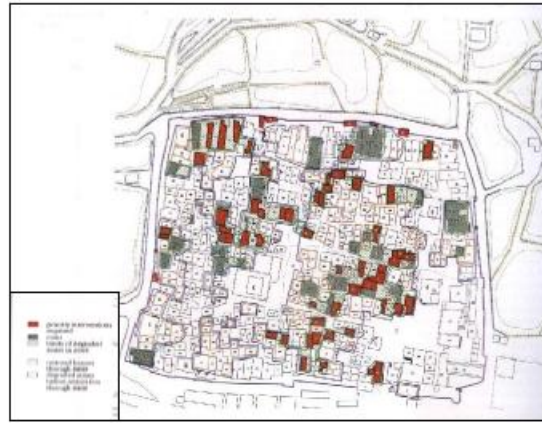


Figure 4: Map of Shibam City.

Source: Aga Khan Award for Architecture, 2007

The architectural design of Shibami houses, which reflects its heritage, has succeeded in achieving this communication through the vicinity of urban utilities, housing units, and public facilities, which provides more security and prevents any threat to the urban area and its neighbouring regions. However, old houses that may collapse are abolished and then the new buildings are to be reconstructed it in the same location as per the original design. Other construction activities in the city are limited to repair and maintenance works, and to some extent modifying the existing buildings. Therefore, it is difficult to date precisely any of the houses in the city.

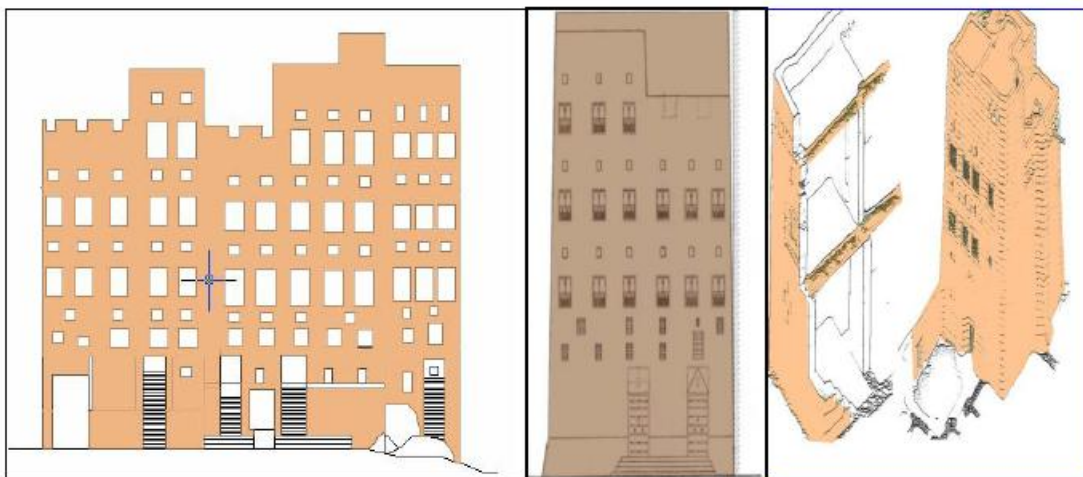


Figure 5: Facades of Shibami House.

The Shibam City Plans and its Architecture

Among other features that make Shibam a unique city is that this city has huge concentrations of tall houses built upon the elevated mound that rises out in the valley floor; a fortified city

wall around the city at its base surrounds the mound. There are many natural factors combined to mould the plan of Shibam into its present, mainly is due to the nature of the ground on which it is built. Archaeological evidence has yet able to support the argument that this city was built on top of the ruins of an ancient Shibam. The erection of several long houses on the Wadi bed outside the walls constructed during the last few years have marred the visual effect of the city. One of the proposals submitted to the plan of action of the international campaign for the safeguarding of Wadi Hadhramout is that the most recent buildings are to be demolished or reduced in height, to single-storeyed or at most double-storeyed buildings, so that will set off, rather than mar, the extreme height of the buildings within the town.



Figure 6: View of Shibami City.

Across the Wadi lies the suburb city, which was earlier a garden suburb, but has become concentrated into an urban area in the last twenty years. It is not intended that this garden suburb should be included in the conservation area. Amongst other reasons for the unfeasibility of horizontal expansion are the political unrest. The city had been through that had a negative impact on architecture and planning. In addition, a hot climate has made the houses to be close-packed, and the streets are to be shaded to avoid the scorching heat of the sun. Shibam, like other cities in the Wadi, has a dry desert climate; extremely hot in summer and moderate in winter, with a sharp fall in the temperature at night. In addition, due to its closeness to the equator, heavy seasonal rain falls sometimes during the summer, sometimes causing floods which may last for days.



Figure 7: Great Shibami Mosque.

Conservation of Old City Tarim



Figure 8: Historical Mosque Al-Mihdhar in Tarim City.



Figure 9: Dar-Assalam and Al-Munisorah Palace.

Tarim includes the city of about 31 heritage palace constructed mud by bricks known in Wadi Hadhramout by (*Almadr*, measuring $40\text{cm} \times 25\text{cm} \times 7\text{cm}$) a basic material used in the construction of all buildings of the city, (Leslise, 1991). palaces is essential because they represent a unique architectural style of historical, political and social era in the history of

Tarim. Rehabilitation work will help to sustain local interest and the value of the architectural heritage, and encourage the inhabitants of Tarim to participate in cooperative plan to protect it, (Damluji, 1992). The first square mud lighthouse (*Minerate*) of *Almihdhar* Mosque. Subsequently, as mosques were erected near tombs of saints or by wealthy returned merchants, their number increased greatly, until in Tarim alone there were said to be 360 mosques, (Lewcock, 1986). The use of local building materials in buildings and luxury palaces of the city of mud clearly (Figure 6,7) show the effective participation of the people in determining their quality of life around the city to earn a privileged position. Also led to the exploitation of local resources in architecture associated with the secretion of place and self-adaptive. In spite of that building of clay bricks is connected with Wadi Hadhramout, the city of Tarim has its unique participation and remarkable achievements done by its skillful builders in architecture, especially of Innovation wall paint and adhesive plaster of lime known locally as (*Al- Noorah*). The attractive facades of the clustered housing in the old zones were given a quick cosmetic paint with lime (*Al- Noorah*) to blend with new buildings, (Damluji, 2007). When we go deeper in the search, we find that changes in the architecture of clay buildings in Tarim city, (Al-jnied, 2000). The design for the development of the study area is determined by the decisions and is built on the basis of addressing all of the heterogeneity of the region or distortion that may occur for the traditional buildings, and the study of the integration of the buildings within the historic surroundings in order to do the rehabilitation while preserving the architectural identity of the traditional region, in addition to take into account the population cultural background and their need to get economical benefits from the project of urban renovation through the creation of jobs for small self-employed citizens.

The Study Recommendations

1. Initiating the interest in providing the international cooperation in the field of heritage conservation since 1945 through the United Nations Development Programs (UNDP) and the United Nations Educational, Scientific and Cultural Organization (UNESCO), which started its activities in the 1960s.
2. Reflecting a true picture of the economic, political and social conditions in different countries through the policies adopted by these countries in the field of preservation of urban heritage.
3. The official bodies have a great impact on the projects of upgrading the coordination and facilitation between the parties participating in the project.

4. the existence of social and political and urban problems closely linked to the loss of public sympathy with regard to heritage buildings and thus their preservation projects.
5. The existence of a clear classification and registration of heritage buildings the thing that may help to preserve them.
6. Giving an equal importance to the heritage building and its surrounding areas through the legislation that helps to preserve the entire heritage areas.
7. Reusing the heritage buildings in the purposes that serve the community and provide the direct benefit which may lead to the attention of the community towards the conservation and upgrading projects.
8. the need to seek for external funding from international organizations working in the field of conservation of heritage, especially in the case of the lack of country's resources to meet the financial requirements for upgrading and conservation projects.
9. Providing the necessary funding not only for the conservation process, but also for the funding operations and maintenance processes.
10. The importance of the vital fabric of the heritage areas of the historic city as it is considered a dwelling place for the contemporary human activities
11. The use of foreign expertise and experts, the thing that is considered a characteristic of most Arab upgrading projects, despite the existence of parallel Arab expertise that has been used in conservation projects.
12. Paying attention to the surrounding area and the infrastructure of the region which has a key role in the process of integrated conservation
13. The need to recognize the importance of historical preservation of heritage areas without affecting the lifestyle of the surrounding range in order to ensure adaptation of the existing urban fabric with the requirements of modern life.

General Recommendations

1. Paying considerable attention to the role of international bodies and organizations concerned with the preservation of the heritage areas of different countries, and the need for continuing commitment to the performance of this role.
2. The existence of a mechanism to develop the concepts used and applying modern concepts when dealing with the preservation of heritage areas, especially within the historical cities.
3. The need for a future vision for the conservation policies to ensure the continuity of its role with regard to the heritage areas over time.

4. The importance of exchanging information, expertise and knowledge among organizations concerned with the preservation of urban heritage locally and internationally.
5. The analysis of successful experiences in order to ensure the development of a practical knowledge for the process of preserving heritage areas and transfer a scientific and educational expertise for successive generations.
6. A comprehensive vision to the preservation process that connects between the real situation and the coming future.

CONCLUSIONS

The strategy of urban planning of the Hadhrami cities is harmonious and rhythmic in heights, objects, and the morphology of minarets in addition to the bridges, which connect the buildings, and the minarets. The elements of the urban composition consist of market, shops, mosques, buildings, public squares, and the castle. The type of building design and characteristics of planning, it is enclosed and vertically directed in building. It forms with the other buildings zones sharing similar public services functions, mosques, and squares. The composition type of religions service building is different in plan. The form of the building is square and rectangular opening in it the outside e.g. the open part in the mosque. The coverall part (corridors). The distinctive general characteristics of facades, the main facades of the buildings generally lookout on the streets or squares. Patterns are represented by windows (*Mashrabiya*). The environmental control of climate; the architectural type is rich in its experiences of the ability of environmental climatic control in creating heat comfort given the direction of building and functions, selection of building materials having thermal isolation ability, volume control of acquired heat, air movement activation through narrow low and high openings. The overall the author conclude that the Hadhrami, Hadhrami city model is unique and characteristic morphologically and functionally objects, elements, and pattern. Interrelation of ancient Hadhrami architectural and Islamic art along with the perpetuating experience laden with knowledge accumulation.

REFERENCES

1. Aga Khan Award for Architecture, Intervention Architecture Building for Change. London: I.B. Tauris & Co Ltd 6 Salem Road, W2 4BU, printed and bound in Singapore by K.H.L. printing Co. Pte. Ltd, 2007.

2. Al-jnied, M.A. Features of the Steadfastness of Mud Architecture in Wadi Hadhramout Variables in Front of Reality and the Needs of the Times. First Scientific Conference Clay Architecture on the Threshold of the 21st Century 2000. Aden: Hadhramout University, 2000.
3. Damluji, S.S. The Valley of Mud Brick Architecture Shibam, Tarim and Wadi Hadhramout. London: Garnet Publishing, 1992.
4. Damluji, S.S. The Architecture of Yemen: From Yafi to Hadhramout. London: Laurence King Publishing Ltd, 2007.
5. Lewcock, R. Wadi Hadhramout and the Walled city of Shibam. UNESCO Publishing, UK., 1986.
6. Leslise, J. Edited by Ahmed Abad. Building with Earth in South Arabia. MIMAR. Reading: Garnet publishing Limited, March Issue, 1991.



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