بحث قسم الجغرافيا باللغة الإنجليزية
Rehabilitation of Heritage Villages for Urban Heritage Sustainability in Asir Region, Saudi Arabia

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Abstract:

The Asir region abounds with an enormous wealth of urban heritage, which represents its memory and civilizational depth hundreds of years ago. The heritage villages, which are distributed in all regions of Asir with different urban characteristics, are the main container for social and economic interactions and urban activities that were practiced until recently. Despite the great interest that
the government attaches to the urban heritage, because it is a national heritage that should be preserved and continued, in spite of this, there are many heritage villages that still suffer from many and varied problems, perhaps the most prominent of which is the abandonment of people to them, and the deterioration of its urban heritage due to natural and human factors, which affected its urban, social and economic structure.

This study aims to restore and develop some of the heritage villages selected from the Asir region and revive them, and to develop a plan and proposals to rehabilitate them in an effort to save these heritage villages and turn them into an attractive urban environment with its activities, events and handicrafts, and in a way that ensures the preservation of its heritage and highlights its architectural and heritage value.

**Keywords:** Heritage villages; Cultural heritage; Rehabilitation; Architectural heritage.
1. **Introduction:**

The kingdom's urban and cultural heritage can be a major source of national income by making it a hub on which tourism in the Kingdom depends. And achieve the restoration of these villages without being a burden on the Saudi government. As a legacy, it retains many architectural, social, historical and artistic evidence that reflects the Kingdom's march throughout history (Abou Ghazala 2020). Sustainable urban and heritage development has become an important international concern. The United Nations Educational, Scientific, and Cultural Organisation (UNESCO) was established to manage heritage culture and maintain the World Heritage Site list (Arandelovic 2015, Duraj, Marschalko et al. 2016). It is well known that urban regeneration contains large scale demolition zones, which can result in the destruction of the local urban identity (Yung, Zhang et al. 2017). Developing heritage villages, including conserving historical facilities, is important if an area is to be considered a UNESCO site, as cultural heritage is of interest to the tourism industry (Cuccia, Guccio et al. 2016).
Heritage conservation is a multi-disciplinary field; it covers different subjects and issues, such as archaeology, environmental responsibility, architecture, and art (Zeayter and Mansour 2018, Yung, Zhang et al. 2017). The concept of conservation has been studied by reviewing previous research and observing the original roots of conservation ideologies (Zeayter and Mansour 2018). The authors examined four conceptual ideological approaches to conservation, namely, a socio-economic approach, urban planning approach, physical approach, and cultural approach. Theory in this field has progressed significantly since it began, especially between the early classical age to the new globalisation era, and highlights positive strategies to be applied for the protection and rehabilitation of a historical city (Zeayter and Mansour 2018).

Asir region is one of the regions that have many heritage villages that require protection, conservation, and investment. Heritage villages reflect the local traditions, culture, and design based on local climatic conditions. As such, this paper will present an overview of the field of
sustainable heritage development and urban design. This heritage village needs considerable planning and urban design for its restoration, rehabilitation, and urban development. This study aims to develop, preserve and rehabilitate the heritage villages.

2. Methodology

The methodology is based on a theoretical and empirical approach that considers the historical, social, cultural and economic dynamics as well as the territorial/physical urban environment, includes a site visit for Asir heritage villages to highlight the current condition of development. The main goal to allocate the site visit approach is to identify the limitations and boundary of the heritage villages, and the current heritage potential and how to develop it.

3. Study area

The Asir region is one of the administrative regions in the Kingdom of Saudi Arabia. It is located in the southwestern part of the country. The seat of the emirate is the city of Abha. The Asir region is located in the center of
the southwestern part of the Kingdom, between latitudes 17.25 and 19.50 North, and longitudes 50.00 and 41.50 east, geographical area of the Asir region is 81,000 km², and it is bordered to the north by the regions of Makkah and Al-Baha, to the east by the regions of Riyadh and Najran, and to the south by the Jazan region and the international borders. Yemen. Its western borders are the Makkah region and the Red Sea coast, with a length of about 140 km² (Aseer Development Authority, Qimam and Shem, 2021), fig.1. Asir region is famous for its rugged and diverse geographical nature. Asir region is one of the richest regions of the Kingdom in heritage and archaeological treasures, as it contains 17.5% of the total heritage sites in the Kingdom, which has made it a destination for tourists for many years from the Gulf and Arab countries, as it is still a civilized tourist destination distinguished in terms of construction, decorations and formations.
Fig. 1. The location of Asir region in relation to the Kingdom of Saudi Arabia.

Asir region consists of 17 governorates and 128 centers, the number of heritage villages that have been counted includes about 4275 heritage villages Table.1. and fig.2 The heritage villages in Asir witnessed special attention, so the humanization of heritage villages project was launched, which is a project stemming from the work of the urban landscape. In September 2020, a contract was signed to develop a number of heritage villages, including the villages of the village in Tanumah Governorate, the village of Al
Rehabilitation of Heritage Villages for Urban Heritage Sustainability in Asir Region, Khalaf in Sarat Ubaida, and the village of Al-Yanfeh in the center of Tamniya. In addition, 70 heritage villages and archaeological sites were illuminated (Aseer Development Authority, Qimam and Shem, 2021).

Fig. 2. Distribution of heritage villages in Asir.
Table 1. Distribution of heritage villages and their number in Asir governorates.

<table>
<thead>
<tr>
<th>N</th>
<th>The province</th>
<th>The number of heritage villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abha</td>
<td>542</td>
</tr>
<tr>
<td>2</td>
<td>Khamis Mushait</td>
<td>325</td>
</tr>
<tr>
<td>3</td>
<td>Mahayil Asir</td>
<td>715</td>
</tr>
<tr>
<td>4</td>
<td>Bisha</td>
<td>246</td>
</tr>
<tr>
<td>5</td>
<td>Al-Namas</td>
<td>216</td>
</tr>
<tr>
<td>6</td>
<td>Tathlith</td>
<td>262</td>
</tr>
<tr>
<td>7</td>
<td>Dhahran Al-Janoub</td>
<td>127</td>
</tr>
<tr>
<td>8</td>
<td>Rijal 'almae</td>
<td>406</td>
</tr>
<tr>
<td>9</td>
<td>Ahad rufayda</td>
<td>164</td>
</tr>
<tr>
<td>10</td>
<td>Sarat Ubaida</td>
<td>237</td>
</tr>
<tr>
<td>11</td>
<td>Balqrn</td>
<td>182</td>
</tr>
<tr>
<td>12</td>
<td>Tarib</td>
<td>66</td>
</tr>
<tr>
<td>13</td>
<td>Bariq</td>
<td>220</td>
</tr>
<tr>
<td>14</td>
<td>Almajarada</td>
<td>397</td>
</tr>
<tr>
<td>15</td>
<td>Tanawimuh</td>
<td>73</td>
</tr>
<tr>
<td>16</td>
<td>Alharija</td>
<td>127</td>
</tr>
</tbody>
</table>

Source: (Saudi commission for Tourism & National Heritage, 1439 AH).
The study area includes three models of different buildings from the heritage villages, which are summarized in the following: villages with a style of stone buildings, villages with a style of mud buildings, and villages with a style of mixed buildings between stone and mud fig.3.

**Fig.3. Models of heritage villages in Asir, (A) style mixed between stone and mud, (B) mud building style, and stone building style.**

4. Discussion:

Economic development and population growth have been of concern due to the continuous destruction of natural
resources, rural villages, historical urban centers, villages and monuments. In general, urban expansion has led to an uncontrolled process of urbanization, accompanied by an overuse of the environment with innumerable problems of a social and ecological nature, as well as a responsibility, to maintain local identities and cultures.

4.1 Description of the villages selected for study:

Heritage Villages List evidence that expresses the region’s civilization and its historical roots, and reveals something of its history and the life of its community. More than 4,275 heritage villages have been recorded, the history of which exceeds more than 500 years, an eyewitness to the unique originality for which the region is famous, and the region embraces more than 651 sites It is an archaeological site registered in the National Antiquities Registry, and it contains stones, inscriptions and drawings dating back to pre-Islamic times, which bear civilized connotations for humans since ancient times(Aseer Development Authority, Qimam and Shem, 2021).

The heritage villages in Asir witnessed special attention, so the “humanization” of the heritage villages project was launched, which is a project stemming from the work of the urban landscape. In September 2020, a contract was signed to develop a number of heritage villages, including the villages
of: the village in Tanouma Governorate, and the village of Al Khalaf in Sarat Ubaida, And the village of Al Yanfouh in the Tamniya center. In addition, 70 heritage villages and archaeological sites were illuminated (Aseer Development Authority, Qimam and Shem, 2021). The study relied on selecting eight heritage villages in the Asir region as an example of the diversity of the urban pattern of the heritage villages in the Asir region, mud, stone, mudstone Fig.4.
Fig. 4. Heritage villages sites selected for study.

4.1.1 Al-Hawza Heritage village (Dhahran Al Janoub):
Al-Hawza Heritage village is located in the center of Dhahran Al-Janoub Governorate, about 20 km away from the Saudi border with the State of Yemen. A guard post called (Al-Kharga or Al-Kasbah) guarding the village from any attack that might face them. The village was built of mud and stone (Al-Natf), the buildings consist of several floors, up
to three floors. The village corridors are winding and narrow, in the middle of the village is a mosque, and the village is surrounded by a wall and forts to protect it. (Saudi Commission for Tourism & National Heritage, 1439 AH).

**Fig. 5.**

*Source:* Photo by the researcher, on 12/5/1443 AH, 16/12/2021 AD.

**Fig. 5. Construction materials and building style in Al–Hawza Heritage village.**

**4.1.2 Al–Masqi Heritage village:**

Al–Masqi Heritage village is located in the town of Al–Masqi, south of the city of Abha, in the Sha’af Center, on the tourist road, with an estimated distance of 35 km. Al–Masqi village is considered one of the largest villages due to its large
number of houses. It is estimated at more than 700 houses, of which forty houses were inhabited until recently. The length of the village is estimated at about four hundred and ten meters and its width is approximately one hundred and eighty meters. It was considered an old commercial center. (Saudi Commission for Tourism & National Heritage, 1439 AH).

Source: Photo by the researcher, on 11/5/1443 AH, 15/12/2021 AD.

Fig. 6. Construction materials and building style in Al-Masqi Heritage village.

4.1.3 Al Balhi Heritage village (Sarat Ubaida):

Al Balhi Heritage village is located in the governorate of Sarat Ubaida, south of the Asir region. The village is one of the largest villages of Sarat Ubaida and is characterized by
its location on the banks of the agricultural valley of Al Balhi. The village consists of a number of buildings, which were built in the architectural style prevailing in the governorate of Sarat Abidah, in which mixed clay was used. With straw and stone foundations at a height of one meter. Most of the village buildings consist of 3 to 4 floors, starting with wide courses from the ground floor, and the width of the building decreases in the upper floors.

Also, stone (Al-Natf) was used, to protect these buildings from rain, and he chose very carefully and with certain sizes, the buildings were roofed with local timber, and the old mosque was in the middle of the village, and the water was delivered by the people of the village through its winding and narrow roads. (Saudi Commission for Tourism & National Heritage, 1439 AH), Fig.7.
Source: Photo by the researcher, on 12/5/1443 AH, 16/12/2021 AD.

Fig.7. Construction materials and building style in Al Balhi Heritage village.

4.1.4 Al A'bes Heritage village (Sarat Ubaida):

Al A'bes Heritage village is located in the Sarat Ubaida governorate, south of the Asir region. The village is characterized by the height of its buildings, which reach six floors. The first floor is always made of local stones, then the upper floors are made of mud. The area of the upper floors decreases in height, and thin stone pieces are used in the construction style called Al–Natf (stone). They are stacked next to each other in order to protect them from heavy rain.
4.1.5 Al Muhdal Heritage village (Balqarn):

Al Muhdal Heritage village is located in the Balqarn Governorate, north of the Asir region. The village was built in the mountainous architectural style prevailing in the governorate. It was built with polished local stones, medium in size and carefully selected. The buildings in the village

**Source:** Photo by the researcher, on 12/5/1443 AH, 16/12/2021 AD.

**Fig.8. Construction materials and building style in Al A'bes Heritage village.**
range from one to three floors, roofed with juniper wood, in the middle of the village. A mosque called the village mosque. Military forts surround the village from all directions, to protect the village. The village is also distinguished by the decoration of its doors and windows and its location on the pilgrimage road. (Saudi Commission for Tourism & National Heritage, 1439 AH), Fig. 9.

**Source:** The Ministry of Culture and the Heritage Authority in Asir.

**Fig. 9. Construction materials and building style in Al Muhdhal Heritage village.**

4.1.6 Al Yanfoh Heritage Village:
Al Yanfoh Heritage Village is located about 40 km south of the city of Abha. It is considered one of the largest heritage villages in the region. It is distinguished by its stone buildings, which reach a height of one and two meters to support its base with mud. Al-Natf (stone) was used between the mud to protect it from rain. The village was built in a military style, and it has a number of entrances and exits, and is characterized by the presence of corridors called "Al Shadfa" that are roofed with local wood, some of which pass under its adjacent buildings for long distances.

The village is also distinguished by the presence of an old mosque, which was built in the era of the Umayyad state, if the historical sources are collected as it was built during the era of the Umayyad Caliph “Yazid bin Abdul Malik bin Marwan bin Umayya”, in the year 105 AH, which indicates the age of this historical village, (Saudi Commission for Tourism & National Heritage, 1439 AH), Fig. 10
4.1.7 Al–Harajah Heritage Village:

Al–Harajah Heritage Village is located in the south of the Asir region. It is distinguished by its distinguished architectural construction, which is prevalent in Al–Harajah Governorate. Which is built with mud from the ground floor to the upper floors, and some of its buildings reach seven floors, and it is noted in its buildings not to use (Al–Natf), which is used in the villages of Abha and Sarat Ubaida to protect their buildings from rain. This is due to the strength
and quality of the mud in the area, which withstands rain and weather factors in the area.

In the middle of the village is an old mosque characterized by the external inscriptions on its walls and the presence of an archaeological well near it. What distinguishes the village is also the size and height of its buildings and the village next to its popular market, which increases its activity every Monday (Saudi Commission for Tourism & National Heritage, 1439 AH), Fig.11.

Source: Photo by the researcher, on 12/5/1443 AH, 16/12/2021 AD.
Fig. 11. Construction materials and building style in Al–Harajah Heritage Village.

4.1.8 Al–Qurayia Heritage Village:

Al–Qurayia Heritage Village is located about 45 km south of the city of Abha. The village is characterized by its winding and narrow roads, and the presence of lanes roofed with the wood of local trees. The village consists of a number of buildings ranging from one to four floors. The one-storey buildings are built with local dark colored stones. As for more than one floor, the people used mud in their upper floors and roofed with local trees in the area, including juniper trees. In the middle of the village is its historic mosque, and prayers are still held there. At the edge of the village is a heritage museum that represents the prevailing life in the village, including agricultural tools, traditional clothing, silver ornaments and household utensils, (Saudi Commission for Tourism & National Heritage, 1439 AH). Fig. 12.
Fig. 12. Construction materials and building style in Al–Qurayia Heritage Village.

5. A proposed plan for the rehabilitation of Heritage villages in Asir region:

The proposed plan aims to restore the spirit and human vitality to the traditional problems in the villages of Asir region in general, and to evoke the memory of place and time by linking the past of the villages for the present, stopping the demolition of buildings and the spread of their landmarks, as well as developing the spirit of citizenship and
deepening the belonging of the local population as well. It aims to make the villages of Asir region a cultural tourist destination based on the employment of heritage buildings after their demarcation and the creation of services, farms and the natural environment with the provision of tourist, social and cultural facilities in them, and the provision of activities and events that suit the various villages, their characteristics and the wishes of the residents and prospective visitors.

Based on the current conditions of the heritage villages, and the urgent need to limit the deterioration, and in order for these villages to play an active role in forming the people’s historical memory and upgrading the urban fabric, it was necessary to develop a proposed plan that can be used to put an end to the deterioration of these villages and improve the living reality. In it, and in order to achieve the desired goals of this research, and to combine the preservation of heritage residential buildings, the upgrading of the living environment, and the improvement of their deteriorating conditions; To be attractive to the population, the proposal focuses on a number of different related dimensions, which can be clarified as follows:
5.1 Inventory and documentation of Heritage villages:
- Studying the current status of heritage buildings in villages, by collecting information, conducting field surveys, and documenting all buildings in the heritage villages, coming up with the foundations and standards of planning and design, and then appearing with an integrated planning and architectural program for all the buildings in the heritage villages.
- The necessity of accurate and detailed survey and documentation of the urban conditions, and reports illustrated with drawings and photographs when carrying out maintenance, restoration and rehabilitation works.

5.2 Protection and rehabilitation of Heritage villages:
- Determining suitable structural and planning conditions to show the heritage dimension in any modern establishments in these heritage villages.
- Preparing studies and designs for restoration and rehabilitation projects.
- Rehabilitation of heritage villages should be based on achieving scientific aspects in accordance with the principles and rules of restoration and maintenance of
heritage buildings while preserving heritage villages and their distinctive features.

5.3 Risks and Threats:

- Removing the existing structural deformations in the villages in Asir region and replacing or treating them to suit the character of the village.
- Inventory of the manifestations of neglect, deterioration, bad and deteriorating buildings.

5.4 Rehabilitation and preservation of the architectural and urban character of the Heritage villages:

- Rehabilitating heritage buildings and integrating them into the urban fabric without isolating them from the surrounding aspects of civilized life; to perform its function without prejudice to its distinguishing features and its historical value.
- Develop and provide the necessary infrastructure requirements while preserving the architectural style of heritage buildings (transportation – water network – electricity – sewage), and raising the efficiency of the road and street network.
- Developing the various services necessary for the local community (health – education – social services –
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sports and recreation) with the aim of encouraging people to stay in their villages and return to them.

- The comprehensiveness of the development process for all social, economic, urban and environmental aspects within the heritage villages.

- Exploiting the agricultural areas surrounding the heritage villages to establish parks and investing them as aesthetic landscapes that can be enjoyed.

5.5 Reuse and the employment of Heritage villages for investment:

- Employing heritage buildings in their original functions as housing in the event that they are accepted by the local community, or in another function appropriate to the needs of the community while preserving the distinctive heritage and architectural value.

- Developing the tourism function of the village buildings, provided that part of the returns go to the areas of protection and maintenance, and development.

- Reviving the traditional craft activity and developing agricultural products.
• Reviving the aspects of cultural and social life in the villages and highlighting them by all available means and means. And motivate citizens to engage in economic activities that make them feel that they are the first beneficiaries of these activities.

• Development of entertainment programs cultural and purposeful:(Theatrical festivals – craft marketing festivals – poetry seminars – social seminars – plastic arts exhibitions – coloring workshops), and holding creative and artistic competitions.

• Supporting activities and works that contribute to the development of heritage villages and improving their heritage status.

5.6 Involvement of the local community and owners of Heritage villages:

• Focusing on the social dimension in the rehabilitation process, and working to involve the local community and owners of heritage villages in the work of preservation, revival and rehabilitation as a basis for the proposed action plan in order to appreciate what they do and make them feel responsible for it, through their effective role in the organizational and executive processes; To suit commensurate with the rehabilitation proposals with the needs of the local
community, and in a manner that contributes to providing job opportunities for the population.

- Encouraging the participation of the private sector in financing rehabilitation projects, activating the role of civil and charitable societies in the field of preserving and rehabilitating heritage villages, and providing appropriate incentives for that.

- Coordination between all government agencies concerned with the protection and development of Architectural heritage (Emirate of Asir – Asir Development Authority – Ministry of Culture – Ministry of Tourism – Municipalities – Ministry of Social Affairs – Ministry of Agriculture – Ministry of Municipal and Rural Affairs – Ministry of Municipal and Rural Affairs Water and Environment – Ministry of Transport – Ministry of Transportation …).

- Forming a team of technicians and specialized experts to consult with the residents of the heritage villages to know their aspirations and reactions to the rehabilitation process. The team also undertakes the development of the general plan, architectural plans and restoration plans.
To support and form civil associations concerned with preserving the architectural heritage in heritage villages.

5.7 Methods of restoration and rehabilitation:

- Preserving all the traditional elements, by restoring and rebuilding them according to their original condition, including: walls, ceilings, door openings, Windows and decorations.
- The use of local building materials and traditional methods when carrying out restoration and maintenance operations while preserving the character – and architectural identity of the heritage villages.
- Finding a kind of balance between adapting the characteristics of traditional architecture to simulate the population’s tools and the requirements of the modern era, preserving heritage and not harming the value and importance of heritage homes.
- Replacing the buildings in poor and dilapidated structural condition, if they do not have a heritage and civilization value that calls for preservation, with a new building bearing the same traditional character and local building materials, and two or more housing units can be combined and redistributed as one housing unit.
due to the limited space and the small number of rooms (Hantash, 2007, P.158).

5.8 **Cultural awareness:**

- Increasing cultural awareness of the importance of heritage in highlighting the nation's identity and civilization, and its impact on the future of current generations.

- Contribute to providing material support and funding for maintenance and protection operations, and implementation of repair and maintenance operations for residential buildings, to encourage wealthy owners to use it on occasions, and to host their guests.

**Conclusion and recommendations:**

Find that care and concern for urban heritage has become a national demand and one of the axes of the Kingdom's 2030 vision; it contains many features of aesthetic values and homogeneous visual formations, and its guarantee of giving them an architectural character of their own. Additionally, many heritage villages in Asir region are exposed to deterioration and collapse as a result of many
factors, including the rapid impact of natural factors, most notably wind, heat and rain, on these villages due to the nature of building materials and construction methods.

The Asir region is characterized by an architectural heritage that has distinctive characteristics and reflects the civilized and cultural development in the region, but it is subject to demolition as a result of neglect, despite its historical, architectural, functional and social value. Therefore, it was necessary to preserve these heritage villages and rehabilitate them to enhance identity and confirm authenticity, by standing on the condition of the heritage villages, construction and architecture, maintenance of good buildings, and restoration of dilapidated ones. The process of restoration and rehabilitation of buildings in the old urban fabric of heritage villages leads to the preservation and control of urbanization, which plays an important role in the process of economic and social development by re-using them to contribute to the tourism development of the region. The findings demonstrate the importance of historical preservation of heritage to preserve and value local identity and culture in order to finance urban renewal. In fact, it reveals the intrinsic relationship between the social and economic benefits that
can come from transformation and efficient use of buildings. Therefore, the development of mixed-use models is a major objective of the strategic planning approach for the future of heritage villages in the Asir region. The study is concluded with the following recommendations that must be considered by the developer and decision makers:

1. Establishing new hotels and markets, to create interaction points within the heritage villages that support the local tourism industry.

2. Establishment of regular transport routes between the developed heritage villages in order to support and stimulate the tourism industry and to preserve the urban and architectural buildings.

3. Involvement of local citizens in the rehabilitation of heritage villages in Asir.

4. Involve specialist engineering consultants in developing heritage villages based on the suggested design strategies for conserving heritage villages in Asir.
5. Establishing construction companies to produce local stone bricks used in the rehabilitation of heritage villages.

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