

Restoration of the historical monument: Al Waha Al Hamra Hotel for its utilisation

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Abstract:

The conservation and development of historical sites has become a major concern for countries in general and Algeria in particular, through their rehabilitation and use or by adding new functions that do not affect their structure or characteristics, either internally or externally. The idea of reuse should be in keeping with the spirit of the times and should primarily serve the local community, thus reaffirming historical identity and contributing to conservation policies and innovative approaches to cultural heritage as part of sustainable development processes.

Historic buildings embody the material and moral record that carries the history, characteristics and lifestyles of people in specific periods. They often have architectural features that highlight unique cultural, social or military aspects. This is the case with the historical buildings built by the French colonial forces in the Gourara region, which represent an important period in Algerian history that lasted almost a century and a half. In particular, the widespread presence of these buildings in the region underlines its revolutionary character and the struggle for the unity of Algerian territory, which changed the course of the Algerian Sahara issue in terms of national sovereignty at the time.

The irregular and unstudied use of historical buildings by citizens or non-specialised civil organisations has left them vulnerable to deterioration. Therefore, the rehabilitation of these buildings and the projects for their use according to appropriate functions or those closest to them require the consideration of various social, economic, environmental and architectural criteria.

Those interested in reusing their historic buildings should present the true nature of this process, highlighting its internationally agreed regulatory aspects. These aspects are also taken into account by our Algerian state through its culturally oriented administrative bodies. As a case study of rehabilitation, we analyse the current functional state of the Al Waha Al Hamra Hotel in Timimoun.

Keywords: Historical buildings, rehabilitation, Al Waha Al Hamra Hotel, intervention assessment.

1. INTRODUCTION

Architecture is considered to be one of the most important elements of cultural heritage, as it provides direct and undeniable material evidence of the existence of past civilisations. It highlights the succession of their experiences and their cultural, social, religious and military values.

It is essential to identify the criteria and principles that should be taken into account when rehabilitating historical buildings for cultural functions. This includes raising the awareness of the local community, in particular the civil society organisations in the Gourara region, which are committed to reviving and preserving the material heritage and ensuring its continuity. This approach can serve as a model for the rehabilitation of any other building, as it represents local architecture with its historical and archaeological significance.

2. Re-use and international and local charters for conservation

Article 2 of the Athens Charter emphasises the need to preserve archaeological buildings in a way that ensures their continuity, or to reuse unused buildings in a way that respects the historical and artistic characteristics of the structure. Similarly, the Venice Charter recommends that archaeological buildings be used in such a way as to ensure their continuity, allowing for some modifications necessitated by the process of use, as long as they do not alter the layout or decoration of the building. The Lahore Charter also emphasises the need to respect Islamic ethics and ensure that the original function of the building is maintained.

In addition, Articles 08 and 23 of the Burra Charter emphasise the importance of use as a form of conservation. The Charter of Historic Towns also affirms the need to use historic towns for new functions and activities, provided they are in keeping with the historic character of the area.

UNESCO's recommendations are consistent with all of the above, noting the need to integrate heritage into community life and to ensure that its use meets the cultural, social and economic needs of the community¹.

In terms of local charters, the Australian Charter agrees with the principle of rehabilitation, stating that rehabilitation is acceptable if conservation cannot be achieved by other means and does not diminish the cultural significance. It also agrees to allow alterations provided they are reversible and safe².

3. Rehabilitation of Historic Buildings (Concept, Levels and Benefits)

¹- International Tourism and Antiquities Authority, "Research and Heritage," Annual Journal, Sharjah, p. 319.

²- Mahmoud Zain Al-Abidin, "Assessing the Experience of Rehabilitating Some Ottoman Historical Buildings in Syria for Cultural Functions: A Case Study of Museum Employment – Comparative Study," p. 31.

Rehabilitation refers to the implementation of a series of innovations to restore a building to its current condition for the performance of its former functions or a suitable new function. This is achieved through repairs or development, while preserving those parts of the building and its elements that have significant historical, architectural and cultural value throughout the periods it has undergone since its construction³.

Rehabilitation also means creating new levels for the building to enable its use and ensure its continuity through regular maintenance. The levels of rehabilitation for historic buildings vary according to the size, type and importance of the building and can be classified as follows:

- Rehabilitation of a single building: This includes the restoration and renovation of historic buildings, transforming them into museums, cultural centres or tourist attractions.
- Rehabilitation of a group of buildings: In the case of a group of adjacent heritage buildings, all are preserved as a complete group, demonstrating the historical value of the group and the importance of each unit.
- Rehabilitation of a heritage corridor: This is where there is a group of heritage buildings linking one area to another.
- Rehabilitation of a whole heritage area: This concerns a complete area representing the architectural heritage, including buildings and historic routes.
- Rehabilitation at regional level: Planned at a regional or national level, this includes previous levels of conservation and is integrated with the conservation of other areas or corridors.

³- Mohamed Allam Fawzi Atmeh, "Rehabilitation of Historical Buildings in Palestine: A Case Study of Nablus Since 1994," supervised by Khairy Mar'i and Khaled Qamhiyah, Master's Thesis in Architecture, An-Najah National University, Palestine, 2007, p. 20.

- Rehabilitation at the international level: This involves the preservation of models of architectural heritage as examples of human development in general, typically involving global organisations such as UNESCO.

The rehabilitation and reuse of an archaeological or historical building ensures its continuity and brings many benefits to society, including

- Social benefit: This reflects the preservation of people's identities and social roots in the context of modernity.

- Cultural benefit: This relates to the preservation of art, architecture and antiquities. This benefit can be particularly important in discussions of land disputes, as each party to the conflict seeks to substantiate its claims with material and historical evidence.

- Economic benefits: Reusing or rehabilitating a historic building is more economical than demolishing and rebuilding it, including the costs of removing debris and establishing new facilities and services, as well as energy consumption and building materials.

- Environmental benefits: Old buildings are generally more environmentally friendly because the traditional materials used, such as clay, lime and stone, are natural materials that do not harm the environment and their manufacture does not cause pollution. In addition, the internal environment of these buildings is better suited to human needs than that of modern buildings⁴.

4. Steps and Methods for the Rehabilitation of Historical Buildings with Cultural Functions

After a comprehensive architectural, artistic and structural survey of the historic building to be rehabilitated for a new use, the next stage is to conceptualise several

⁴- Mohamed Allam Fawzi Atmeh, previous reference, pp. 25-21.

alternatives for the building's potential function. These alternatives are evaluated on the basis of:

- The features and characteristics of the building and their suitability for the new function, as well as the suitability of the site and the needs of the surrounding community for the new function.
- The compatibility between the condition of the building and the requirements of the new functional programme, including the necessary areas and essential equipment (sound, lighting, air conditioning, security measures), and the impact of the new type of activity and method of use on the artistic and historical value of the building.
- Cultural, social and economic considerations regarding the relationship between the cost of restoring and equipping the building and the expected return, in addition to management methods.

1. Modification of internal spaces:

After selecting the new activity for the building and defining its components and space requirements, the architect begins to reorganise the internal spaces, either by merging spaces or dividing them into smaller units, or by adding service elements such as staircases and lifts, while endeavouring to maintain the original spatial configuration of the building.

2. Removal of part of the building:

The designer may use this method to meet the needs of the new function and to integrate with the overall architectural composition or site. This is often the case when merging the historic building with other architectural elements into a new configuration, or when a part of the building is not historically or artistically significant and distorts

the visual appearance of the overall architectural composition. In general, this removal should not detract from the overall appearance of the building or its historic value.

3. Adding an architectural element to the building:

This method combines the historical and archaeological aspects of the building with contemporary architectural additions to provide the necessary spaces for the new function. The added architectural element may be consistent with the original building in terms of architectural form, colour, materials and construction style to the extent that it is difficult to distinguish between the old and the new. Alternatively, the addition may consist of elements with new architectural forms that differ from the original building in materials and construction style, but still achieve architectural harmony with the building and the overall site

As far as the methods of dealing with old buildings during their re-use are concerned, we can divide them into two directions:

- The first direction: Leaving the building unchanged and untouched, which can be applied when the requirements of the new function match the existing spaces, or leaving the building as a tourist attraction.
- The second direction: Introducing changes to the building, which can be divided into two types: internal changes, which include modifications to the internal spaces by adding new elements or completely replacing the internal area with a new one; or external changes, which include modifications to the facades by adding modern elements, completely covering the facade with a new one, or creating extensions to the original building. A single building may undergo several types of changes simultaneously⁵.

⁵- "Research and Heritage," previous reference, pp. 320-323.

5. Criteria and rules for the restoration of historical buildings

1. Suitability of the building:

This is the primary criterion for the type of use and includes

- Historical and artistic suitability: The new use should be compatible with the historical and artistic value of the building and in keeping with its visual character and external form.

- Spatial suitability: The shape and size of the existing spaces within the building must correspond to the shape and size of the spaces required to fulfil the proposed functions.

- Functional suitability: This refers to the compatibility of the functional elements of the building with the new use, such as the distribution of spaces, their relationship to vertical and horizontal circulation elements, and the configuration of openings for ventilation and lighting.

- Structural suitability: The structural framework of the building must be adequate to support the anticipated loads resulting from the new use.

2. Improving the environment:

- Community development: Heritage buildings are seen as valuable resources to be exploited, serving as an economic base that supports the commercial and tourist development of surrounding communities.

- Planning suitability: The use of archaeological sites and buildings in the old city is integrated into the land use framework defined by urban planning studies. In general, cultural uses are considered the least likely to develop.

3. Economic viability:

- The proposed use should generate a reasonable profit in order to attract private investment in these buildings, allowing the funding of maintenance and restoration. Given the constraints that limit the building's ability to attract investment, alternative government support is essential.

- Utilising unused space in the building involves selecting an appropriate use by comparing the cost of constructing a new building capable of accommodating the proposed use with the cost of the existing building. In addition, a comparison should be made between maintenance costs and returns, bearing in mind that the primary objective of re-using the building is its conservation⁶.

- Social suitability: The new use should not conflict with the specific values of the community, particularly religious values, and must be compatible with the local community, while implementing maintenance programmes in accordance with applicable laws and regulations⁶.

6. The historic building: Al Waha Al Hamra Hotel

6.1 Geographical Location of Al Waha Al Hamra Hotel:

The Al Waha Al Hamra Hotel Historic Site is located on November 1st Street in the centre of Timimoun, between latitude 29.44015 and longitude 0.0349. It is bounded to the north and east by residential units, to the east by the main road and to the south by the Moulay Hussein Hotel.

⁶- "Research and Heritage," previous reference, p. 331.

Figure 1: Satellite image showing the location of the Al Waha Al Hamra Hotel in Timimoun.



6.2 Historical Overview of Al Waha Al Hamra Hotel:

This historic building was constructed as a military supply centre in Timimoun between 1912 and 1917 by the colonial expedition under the direction of French military engineering expert Captain François Atenor. This building clearly facilitated air navigation at the time, as evidenced by the initial plans, which allowed for the appearance of a cross representing the four main axes.

Figure 2: Picture of the building with its original name: Military Supply Centre of Timimoun.



On 11 July 1925, the Transatlantic Company acquired the building on a perpetual lease, making it one of 44 hotels in Algeria, Morocco and Tunisia owned by the North African Travel and Hotel Company at the height of its prosperity in 1928. It was then called the “Transatlantic Hotel of Timimoun”.

Figure 3: Picture of the building with its second name: Transatlantic Hotel.

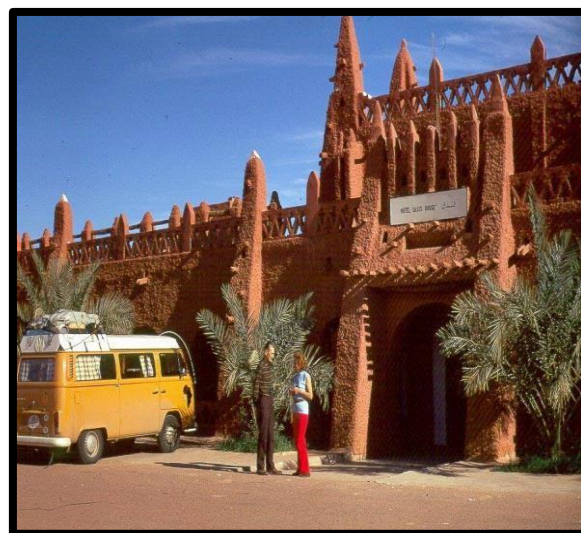
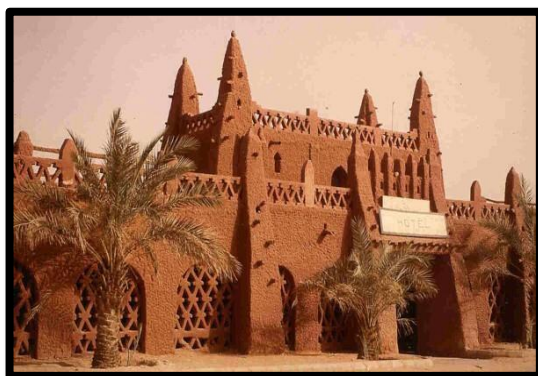


Figure 3: Picture of the building with its second name: Transatlantic Hotel.<http://www.centerblog.net/journal>

The inauguration of this establishment coincided with the New Year's celebrations of 1926, attended by prominent figures of the time, including André Citroën and the Grand Duchess of Luxembourg⁷. In 1965, the Municipality of Timimoun took over the management of the hotel and renamed it Al Waha Al Hamra, in reference to its architectural style, characterised by the red colour derived from the clay, the main building material in Gourara.

Figure 4: Picture of the building with its third name: Al Waha Al Hamra Hotel



The doors of this building were closed between approximately 1996 and 2001 for restoration, after which it was transformed into the Cultural Radiance Centre of Timimoun, affiliated to the Directorate of Culture of Adrar Province.

By a decision published in the Official Gazette of 30 Rabi' al-Awwal 1436 AH (21 January 2015), which included the classification of Al Waha Al Hamra Hotel, this building became the ideal showcase for the Algerian Cultural Heritage Centre built of clay.

⁷- Yasmeen Turki, "From Earth and Clay," an exhibition on earthen architecture worldwide, Karime Al-Asria Printing, Algeria, 2012, p. 49.

Figure 5: Document showing the text of the classification decision for Al Waha Al Hamra Hotel from the Official Gazette.

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الجريدة الرسمية للجمهورية الجزائرية / العدد 08

25 ربيع الثاني عام 1436 هـ
15 فبراير سنة 2015 م

3 - المادة : يبتغ الوزير المكلف بالشغافة، بالطرق الإدارية، قرار التصفيف إلى والي ولاية بسكرة بفرش النشر في الحفظ المعاري.

4 - المادة : ينشر هذا القرار في الجريدة الرسمية للجمهورية الجزائرية الديمقراطية الشعبية.

حرر بالجزائر في 30 ربيع الأول عام 1436 الموافق 21 يناير سنة 2015.

خاتمة لجهدي

قرار مطروح في 30 ربيع الأول عام 1436 الموافق 21 يناير سنة 2015، يتكهن بتصنيف "فندق الواحة الحمراء".

إن وزيرة الشغافة،

- بمقتضى القانون رقم 98-04 المؤرخ في 20 صفر عام 1419 الموافق 15 يونيو سنة 1998 والمتعلق بعمالية التراث الثقافي، لا سيما المادة 19 منه.

- وبمقتضى الرسوم الترشلي رقم 14-14 المؤرخ في 5 رجب عام 1435 الموافق 5 مايو سنة 2014 والتكهن تعيين أعضاء الحكومة.

- وبمقتضى المرسوم التنفيذي رقم 05-79 المؤرخ في 17 صفر عام 1426 الموافق 26 فبراير سنة 2005 الذي يعهد صلاحيات وزير الشغافة.

- وبمقتضى القرار المؤرخ في 6 صفر عام 1432 الموافق 11 يناير سنة 2011 والتكهن فتح دعوى تصنيف "فندق الواحة الحمراء".

- وبعد الاطلاع على الرأي المطابق للجنة الوطنية للممتلكات الثقافية في اجتماعها المتمعد بتاريخ 14 يناير سنة 2013.

تقرر ما يأتي :

المادة الأولى : تطبيقا لاحكام المادة 19 من القانون رقم 98-04 المؤرخ في 20 صفر عام 1419 الموافق 15 يونيو سنة 1998 والمتعلق بعمالية التراث الثقافي، يعترف المعلم التاريخي المسمى "فندق الواحة الحمراء" الواقع ببلدية تيميمون، ولاية أدرار، ضمن قائمة الممتلكات الثقافية.

المادة 2 : يشرت على تصنيف الممتلكات الثقافية المسمى "فندق الواحة الحمراء" ما يأتي :

- **شروط التصنيف :** يجب أن يتلام سفل واستخدام المعلم التاريخي واستغلاله مع متطلبات حفظ الممتلكات الثقافية.

- الارتغافات والالتزامات :

الالتزامات : يأتي المسلم مفر المركز الجزائري للتراث الثقافي المبني بالطين.

الارتغافات : صبور شبكات التزويد بالمياه الصالحة للشرب، وتطهير المياه والكهرباء والغاز لخدمة مطار مجاور.

3 - المادة : يبتغ الوزير المكلف بالشغافة، بالطرق الإدارية، قرار التصفيف إلى والي ولاية أدرار بفرش النشر في الحفظ المعاري.

4 - المادة : ينشر هذا القرار في الجريدة الرسمية للجمهورية الجزائرية الديمقراطية الشعبية.

حرر بالجزائر في 30 ربيع الأول عام 1436 الموافق 21 يناير سنة 2015.

خاتمة لجهدي

وزارة الاتصال

قرار مطروح في 2 صفر عام 1436 الموافق 26 أكتوبر سنة 2014، يعدل القرار المؤرخ في 20 ربيع الثاني عام 1433 الموافق 13 مارس سنة 2012 والتكهن تشكيل اللجنة القطامية للمستغفات لوزارة الاتصال.

بموجب قرار مؤرخ في 2 صفر عام 1436 الموافق 26 أكتوبر سنة 2014، يعدل القرار المؤرخ في 20 ربيع الثاني عام 1433 الموافق 13 مارس سنة 2012 والتكهن تشكيل اللجنة القطامية للمستغفات لوزارة الاتصال، كما يأتي :

الأعضاء الدائمون، السيدتان والسيدة :

- شريفة دحمان، مديرة الإدارة والمسائل، ممثلة وزير الاتصال، رئيسة، خلفا للسيد محمد بوسليمان.

- فطومة منصر، زوجة دردار، نائبة مدير الدراسات القانونية والمنزعات، ممثلة وزير الاتصال، نائبة الرئيسة، خلفا للسيد العربي بلعوي.

- أمين بودي، ممثل رئيس، بالأسسة العمومية للسيد الإنامي والتلقزي في أجازة، ممثل قطاع الاتصال، خلفا للسيدة فوزية بومعدي.

- (البالي بدون تغيير).....

الأعضاء المستغفون، السيدة والسيدة :

- شهاب بن شيخ، مدير المسالغ التنفيذية، بالأسسة العمومية للتلقزيون، ممثل قطاع الاتصال، خلفا للسيد إبراهيم زايير.

- ريمة دريسي، قانونية بالأسسة العمومية للسيد الإنامي والتلقزي في الجزائر، ممثلة قطاع الاتصال، خلفا للسيد سعيد مشواك.

- (البالي بدون تغيير).....

القطامية الرسمية، حي المينون، بلا سيات ياسر، صر 376 - الدار - سطمة

6.3 Archaeological study of Al Waha Al Hamra Hotel

A. Exterior Description:

The main entrance of this historic building, which occupies an area of approximately 1950.282 m², is located on the western side facing the main road and the Sayyid Hussein Dome. It is centred on the façade of the building and features an artistic display that is a testament to the authentic Sudanese style of the region.

The entrance façade features two prominent pillars, each with a base of about 80 centimetres wide, tapering to pointed tops as they rise to a height of about 6 metres. These two pillars are connected by a beam decorated with protruding palm trunks, followed by a rectangular opening between two narrow windows. Between the tops of these pillars there are medium-sized columns. In the depth of the façade, the entrance to the hotel is 1.90 metres wide, with a dark green wooden door in a military style, which leads into a space approximately 4 metres long and 2 metres wide.

As for the main façade, it is made up of the upper room façade and the entrance façade, flanked by a wall made up of two equally spaced columns with double ends in the northern corner of the entrance, repeated in the southern corner. The ends of the walls and fences are decorated with triangular shapes resembling canopies that crown the outer wall.

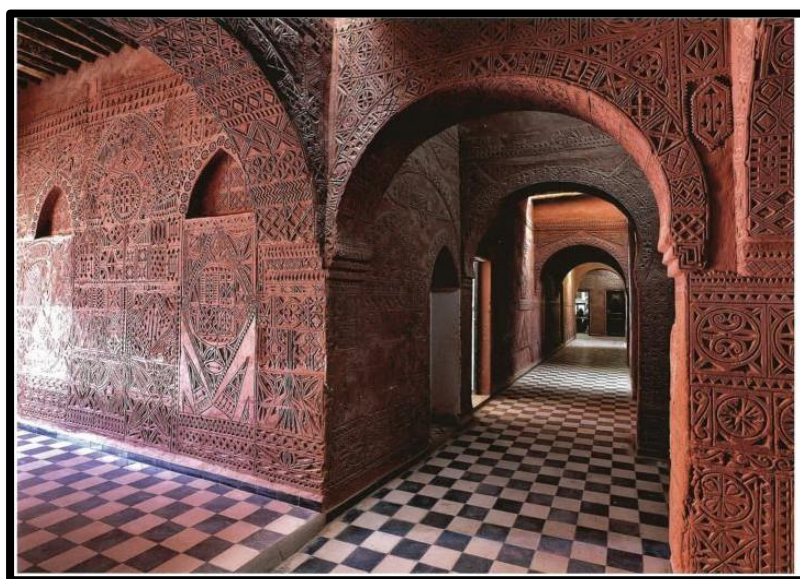
B. Description of the interior:

On entering through the main entrance, to the left of the visitor is the reception desk made of clay, surrounded by palm trunk beams 1m high and 3m long, directly overlooking the intersection of two corridors. The horizontal corridor, 2.21 metres wide, leads to the hall on the north side and the rooms on the south side, while the vertical

corridor, 2.20 metres wide, leads to the courtyard of the hotel on the east side. These two corridors are therefore cross-shaped.

The walls of these corridors, as well as the arches of the hall, are artistically decorated with geometric patterns of symbolic Berber-Islamic significance. The authenticity of this decoration, represented by clay engravings, dates from around the 12th century AD, as shown by the oldest mosque found in Timimoun. It is clear that the French administration employed skilled local craftsmen to decorate the walls of this hotel, in particular a figure called Aba Salim Amirouch.

Figure 6: Image showing local decoration inside the historic building, Al Waha Al Hamra Hotel, Timimoun



The floor has been tiled with white and black tiles in some of the interior spaces of the building, while other tiles have different colours arranged in geometric patterns.

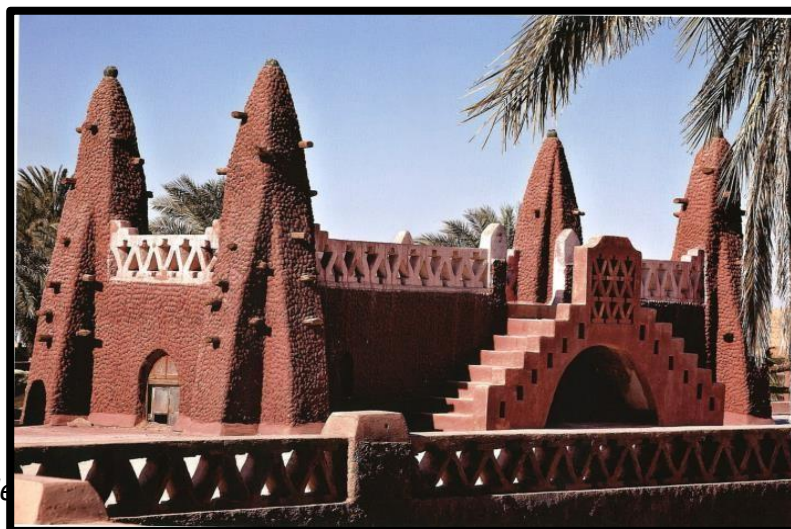
As for the roofing technique used in this building, it differs from that used in the Gourara region. The method begins by laying wooden beams on the walls at very close intervals,

followed by a layer of “karnaf” (the branching fronds of the palm tree), then a layer of palm fibre (called “fadham”) and finally a layer of clay. The reason for the military engineer’s choice of roofing technique is unclear, especially as the more common technique in our region is considered to be more effective. This traditional method consists mainly of laying wooden beams, followed by a second layer of palm fronds stripped of leaves, a third layer of fronds, and finally a layer of clay mixed with straw, topped off with a final layer of pure clay paste.

One of the advantages of this traditional technique is its superior ability to prevent the infiltration of water as it accumulates on the roof, due to the minimal gaps in the structure. In addition, it is a cost-effective solution for wooden beams and allows more flexibility in the spacing of the beams, unlike the first method, which is limited by the size of the karnaf.

On either side of the vertical corridor that leads to the centre of the courtyard is a staircase that leads to the roof where the upper room is located, overlooking the façade. This upper room also has a façade formed by the convergence of two staircases above a tunnel-like arch. This façade became historically significant with the visit of the Grand Duchess of Luxembourg and André Citroën.

Figure 8: Image of the upper room on the roof of the historic building, Al Waha Al Hamra Hotel, Timimoun.



The construction technique used to build this building is the same as that used by the inhabitants of Gourara since ancient times. It is based on the following traditional preparation:

A pit is dug in the ground and a mixture of clay and sand is poured into it in a certain proportion⁸, determined by the experience of the builder and the purpose of the construction, using a basket as a measure. Water is then added to the mixture⁸, which is then stirred and left to ferment for a period of time that the ancestors estimated to be equivalent to the time taken by a pilgrimage. During this fermentation process, in which water is added and stirred periodically, the time has now been reduced to a maximum of one week.

At the end of the fermentation period, the mixture is poured into rectangular moulds (35 cm x 15 cm), taking care to include additives such as straw, hay or scraps of cloth to strengthen the mixture. Any material that might cause the clay bricks to crack, such as dates or sponge, is removed.

As for the external plastering of the building, the “laqma” technique, which we discussed earlier in Chapter One, was used. This technique serves two purposes:

1. Structural purpose: it acts as a protective layer for the walls against various weathering factors such as high temperatures, rain erosion and wind-borne sand.
2. Decorative purpose: it provides a unique aesthetic touch, especially when combined with wooden projections inside the wall.

⁸- Qafah: Similar to a basket in modern times, it is made from palm fronds. This craft is locally known as Zanatiah Tighqat (adding a third point to the letter Qaf).

7. Use of the Al Waha Al Hamra Hotel (The Algerian Centre for Heritage in Mud - CAPterre)

7.1 What is the Algerian Centre for Heritage in Mud?

It is a public institution of an administrative nature under the supervision of the Algerian Ministry of Culture. It was created by Decree No. 79-12 of 19 Rabi' al-Awwal 1433 AH (12 February 2012). The creation of this institution comes within the framework of the Algerian State's strategy and mechanisms for preserving its architectural heritage, which symbolises its identity among countries in the world. The establishment of such centres dedicated to this heritage serves as an effective tool that brings together the local community's nostalgia for the landmark and the efforts of government bodies to preserve the tangible evidence of its identity, in order to achieve the desired goal, especially in the midst of the expansion of contemporary urban production throughout Algeria.

The creation of this centre began in 2009 with the photographic exhibition "Terres, d'Afrique et d'ailleurs", which presented Algeria's protected palaces. This was followed by the "Architerre" cultural event in 2010 and a second edition of the "Terres, d'Afrique et d'ailleurs" exhibition in 2011. In 2012, the "Earth and Clay" exhibition led to the international "Archi'Terre" festival in 2013, during which the Algerian Centre for Cultural Heritage in Clay, CAPterre, was created and opened in 2014.

7. Evaluation of the Emergency Interventions on the Historical Building of Al Waha Al Hamra Hotel for Cultural Employment

In this section, we aim to highlight the main outcomes of the process of employing Al Waha Al Hamra Hotel as a cultural centre, based on the foundations and criteria that are likely to have organised this process in terms of urban, architectural, environmental, social and technical aspects.

7.2 Positive results in the process of adopting Al Waha Al Hamra Hotel:

7.2.1 From the urban criterion:

Through our study of the overall site of the historic building of Al Waha Al Hamra Hotel in Timimoun, we found that its presence within the urban fabric was a suitable criterion set by the supervising ministry, qualifying it to host the cultural building of the Algerian Centre for Cultural Heritage Built of Clay. Its location in the town centre facilitates access for visitors and tourists, especially considering that Timimoun attracts many tourists every year due to its rich cultural heritage and the wealth of tourist assets it offers, both tangible (historical and archaeological buildings, natural landscapes and archaeological sites) and intangible (social practices, folklore traditions and craftsmanship).

The location of the historic Al Waha Al Hamra Hotel in the city centre, together with the presence of other service centres such as the Air Algeria agency, bus stations, mosques, markets, shops, exhibitions and access roads to the old palace and the oases and hotels, make it an important destination that cannot be overlooked by tourists and visitors, whatever their itinerary.

7.2.2 From the architectural and structural criterion:

The new use process for the historic building often involves architectural and structural changes that can be divided into two directions: internal changes and external changes. These changes can range from the mere rearrangement and use of spaces to extensive internal modifications, making the existing building more complex than a new one.

During our study of the positive aspects of architectural and structural interventions on Al Waha Al Hamra Hotel, we found that its condition was not overly complex, as its structural qualifications were originally designed to accommodate a significant number

of people during its original function as a military supply centre. Even after its functional transformation into the Al Waha Al Hamra Hotel, this does not make it difficult for modern tourists to navigate. In addition, the distribution of entrances allows employees to access their offices in their current function without interrupting the tour guide or distracting tourists during guided tours.

The problem of insufficient office space was solved by rearranging and utilising areas within the building, mixing and dividing large architectural spaces to create additional functional spaces. These interventions included the hall adjacent to the lobby to create the centre director's office, where a toilet was built opposite the entrance to the secondary hall on the north side. Clay bricks were used in the construction, with wooden beams placed on the walls, followed by a layer of karnaf and a layer of clay on top. This illustrates the principle of using the same building materials.

Figure 9: Image showing the construction of the toilet adjacent to the lobby.



Figure 10: Image showing the interior of the toilet, finished with plastic sheeting.



The external plaster layer was made using a mixture of slaked lime and sand, while a layer of plastic was added to the interior walls to insulate against moisture. Ceramic tiles were then laid for decorative purposes and the facility was fitted with the necessary fixtures and fittings.

The adjacent arch was closed off with plastic sheeting, which served as a shelf for archive boxes. A door was installed for the following arch and the doors were repainted a dark green, while the walls were painted with water-based vinyl paint after the electrical wiring was reinstalled inside the walls.

An office for the computer services department was created in the southern section. For this purpose, 1 cm thick panels were used, matching the dimensions of the arches to be closed. This approach respects the principle of reversibility, which means that these panels can be removed at any time to return to the original design.

The spaces in the corridors and in the northern main hall were left open without partitioning in order to preserve the unique local decorative murals that make this building an artistic masterpiece.

Figure 11: Image showing the position of the arches after the intervention



In the eastern part of the building, a water tank of approximately 8 m² was created. Excavation was carried out to a depth of 1.5m, followed by the pouring of a layer of concrete. A steel grid was then installed to define the dimensions of the tank, onto which a mixture of Portland cement with high salt resistance, gravel, sand and hydrophilic liquid for concrete was applied to make the concrete waterproof, all of which was done after setting a formwork (coffrage).

Figure 12: Picture showing the first stage of casting the wall of the water tank.



Once the wall had dried from this first layer, a second stage involved placing a layer of plastic (sikawaterbars) at the bottom of the tank. This was followed by a layer of steel bars, framed with wooden planks, and a viscous mixture of cement, sand and a small amount of gravel. This layer is essential to fill the cavities that penetrate the first layer, before a layer of plaster made only of cement and sand is applied.

This water tank is intended to provide the workshops at the centre with the water they need, especially as the water supply is irregular and often interrupted.

7.3.2 From the social criterion:

In our attempt to understand the social foundations that need to be considered in the process of using the building, we focused on the extent to which the neighbourhood in a desert city would accept the transformation of a historic building into a cultural centre dedicated to adobe heritage buildings. We also explored the importance of ensuring that the community living conditions of the local residents were compatible with the new cultural function of the building.

At this stage of the research, we found that the conversion of a colonial-era military building did not have a negative impact on the neighbourhood. This building has a historical value that is distinct from the authenticity and heritage of the Gourara community and lacks links to local social practices and beliefs such as those associated with mosques, palaces, zawiyas or shrines. Given that its historical significance relates to contemporary history, its repurposing is a crucial step in preserving it from deterioration, especially considering that some view it negatively as a remnant of an unwanted colonial presence.

On the other hand, the existence of this historic building, which houses a national cultural centre in the city centre, is essentially a tourist attraction. Therefore, it does not cause any harm as it is located away from residential areas where the inhabitants tend to be conservative and isolated. In addition, this centre serves as a space that attracts scientific talent from the Gourara region in particular and from Algeria in general.

7.2.4 From the Technical and Environmental Criterion:

It is important to highlight, initially, the significance of constructing Al Waha Al Hamra Hotel using clay as a building material, given its property of providing a cool, humid atmosphere in summer and a warm one in winter. This characteristic has contributed significantly to moderating the internal climate of the building. However, this has not precluded the addition of air conditioning units inside the building.

The weight of these air conditioning units can affect the structural safety of the building due to vibrations and pressure, especially because of the small architectural spaces, which makes decorative and aesthetic elements more susceptible to damage. However, we believe that the thickness of the walls where the units are installed (i.e. the walls of the lobby and adjacent hall) is 60 cm, which can withstand such vibrations, especially since their operation is seasonal.

In addition, the porous nature of the clay walls does not allow thermal differences to affect them significantly when the air conditioning units are in use. Environmental considerations are among the most critical factors to be taken into account when rehabilitating historic buildings for cultural functions, including ventilation and natural lighting.

In this respect, the Al Waha Al Hamra Hotel has a wide courtyard and a colonnade with canopies overlooking the exterior along the western and southern facades of the building. Consequently, these two architectural elements (the courtyard and the

colonnade) contribute to the illumination of the rooms between them through doors and windows. However, due to the height of the neighbouring buildings, the presence of nearby traders and the air pollution caused by waste, dust and vehicle exhaust, the effectiveness of the natural lighting is insufficient for the current function. This situation requires the centre's staff to frequently keep the windows closed, making the use of artificial lighting in the offices essential.

As for the lighting of the main corridors, the French architect ensured that the building received natural light during the day by incorporating glass bottles in the ceiling at various points to reflect sunlight into the corridor.

7.3. Interventions reflecting the conservation status of Al Waha Al Hamra Hotel

The efforts of the study office responsible for the rehabilitation project of Al Waha Al Hamra Hotel to create additional offices in line with its new function led to the idea of implementing an internal extension in the north-eastern part of the lobby. The main objective was to increase the usable area by taking advantage of the extension of the arches in this rehabilitation context to create new internal levels. The lobby has a U-shape, with three bays formed by three arches intersecting two other bays formed by four arches. To the right of the corridor entrance, an internal extension was created by removing the wall at the level of the two arches.

Figure 13: Images showing the state of the wall removal.



Figure 14: Picture showing the situation after the removal of the wall.



Following this intervention, the supporting structure for the three arches was compromised due to the weight it carried and the capillary transfer of moisture within it, as it was not supported by a foundation in the ground.

The restoration was carried out by re-excavating the foundation of the support to a depth of 80 cm and rebuilding it with stone and cement. The body of the column was then rebuilt with adobe bricks, and the vaults were restored to their original dimensions, continuing the construction with bricks on the iron frames attached to the column, up to

the ceiling. At present, the restoration process has been temporarily halted for administrative reasons.

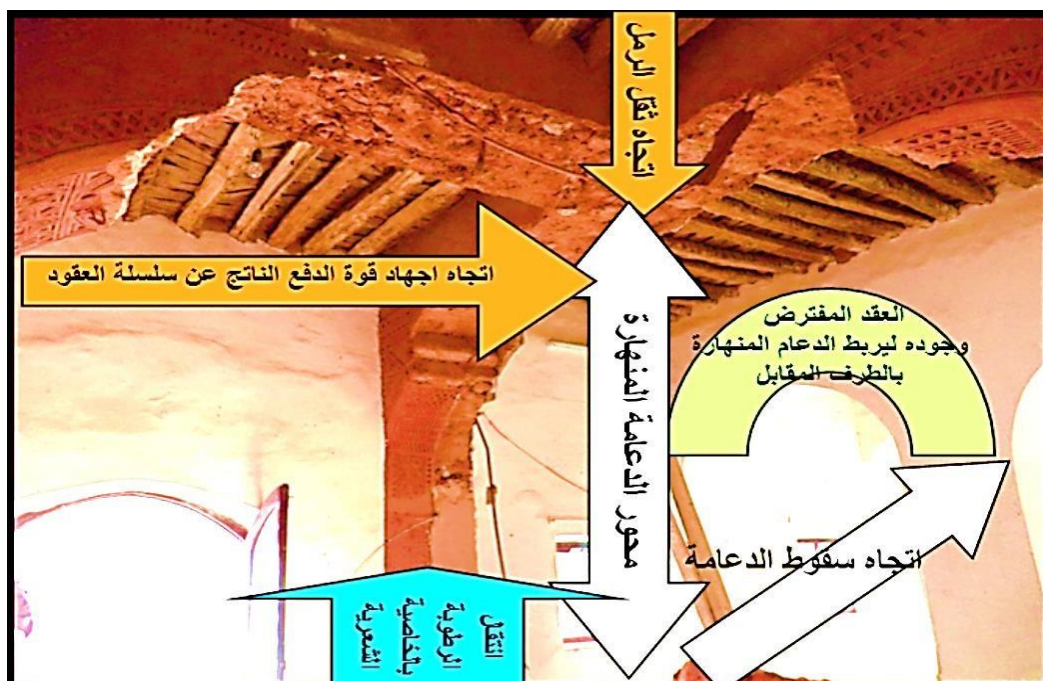
Figure 15: Image showing the collapse of the support for the three arches due to the removal of the wall.



Figure 16: Image showing the restoration process of the arch support.



Figure 17: Image showing the restoration process of the arch support.



Conclusion:

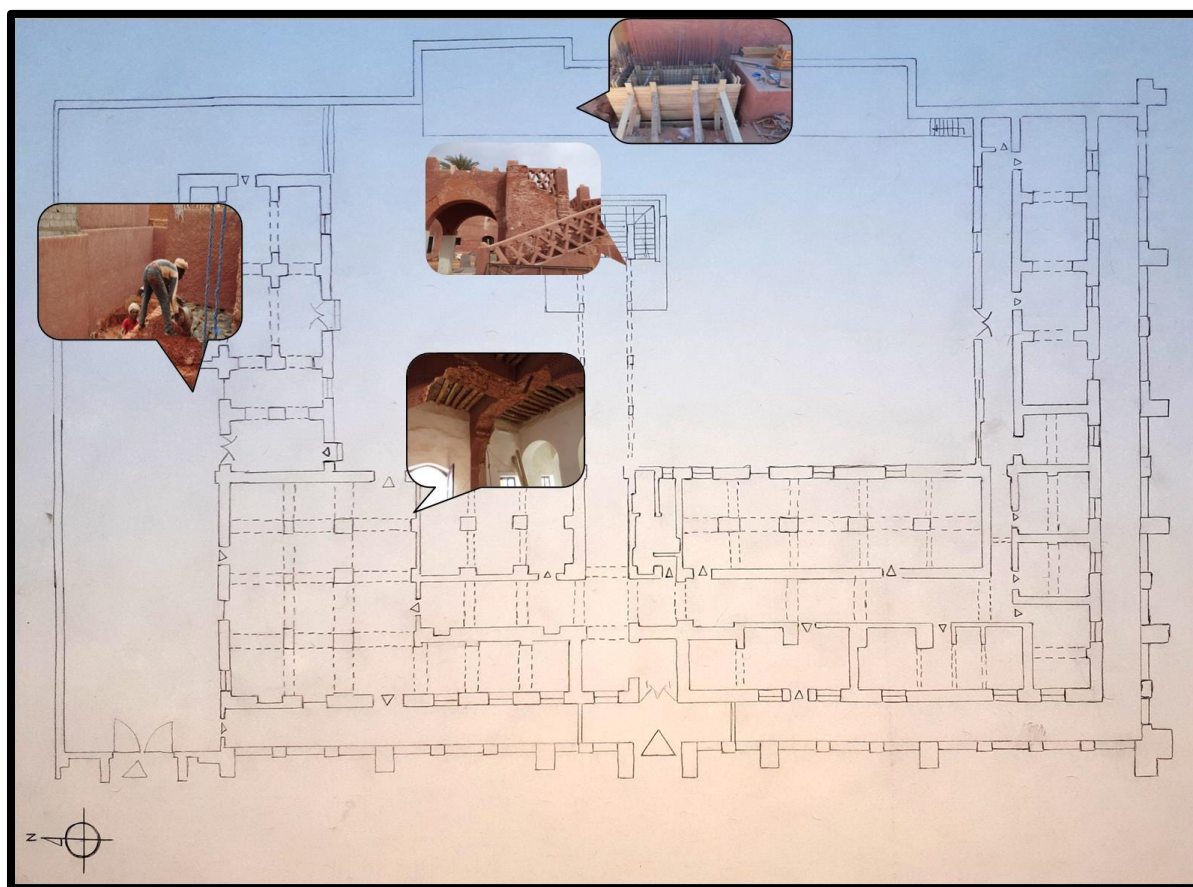


Figure 18: Diagram of Al Waha Al Hamra Hotel showing the locations of the interventions for its rehabilitation.

- It is certain that cultural functions are among the best ways to repurpose historical buildings, as they are closely related to human activity and meet the needs of community members.
- In the process of rehabilitating the historical building, Al Waha Al Hamra Hotel, we observed that there was no alteration to the external façade of the building, indicating that this façade was suitable for the new function. The façade originally included openings that often create an internal need for the new function in some historical buildings being rehabilitated, which could lead to a form of falsification.
- The rehabilitation of historical buildings that lacks an archaeological perspective may lead to deterioration in the building's condition. Despite the process aligning with most

standards governing rehabilitation, the architectural and structural criteria of the building's structure were more affected and prone to unexpected incidents (such as the collapse of the support). Therefore, it is essential to involve the opinions of architectural and archaeological experts to avoid any complications or repercussions for the building proposed for cultural functions. Collaboration among all competencies and experts is necessary to ensure the rehabilitation of a building that yields more valuable results.

- The goal of the rehabilitation process for Al Waha Hotel is to preserve the cultural and historical heritage of the community and to contribute to enhancing tourism and sustainable development in the region.

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