

PROSTOR

31 [2023] 2 [66]

A SCHOLARLY JOURNAL OF ARCHITECTURE AND URBAN PLANNING
ZNANSTVENI CASOPIS ZA ARHITEKTURU I URBANIZAM

UNIVERSITY
OF ZAGREB
FACULTY OF
ARCHITECTURE
SVEUČILISTE
U ZAGREBU
ARHITEKTONSKI
FAKULTET

ISSN 1330-0652
[https://doi.org/
10.31522/p](https://doi.org/10.31522/p)
CODEN PORREV
UDC 71/72
31 [2023] 2 [66]
139-324
7-12 [2023]

154-167 **AMDJED ISLAM DALI
AZEDDINE BELAKEHAL**

HOTEL ARCHITECTURE IN THE FRENCH COLONIZATION ERA
THE CASE OF BISKRA CITY, ALGERIA

ORIGINAL SCIENTIFIC PAPER
[https://doi.org/10.31522/p.31.2\(66\).2](https://doi.org/10.31522/p.31.2(66).2)
UDC 640.412:725(653.11)"1883/1962"



Af

AMDJED ISLAM DALI, AZEDDINE BELAKEHAL

DEPARTMENT OF ARCHITECTURE, UNIVERSITÉ DE BISKRA, BP 145 RP 07000, ALGERIA

emdjed@gmail.com
a.belakehal@univ-biskra.dz

ORIGINAL SCIENTIFIC PAPER

[https://doi.org/10.31522/p.31.2\(66\).2](https://doi.org/10.31522/p.31.2(66).2)

UDC 640.412:725(653.11)"1883/1962"

TECHNICAL SCIENCES / ARCHITECTURE AND URBAN PLANNING

2.01.04. – HISTORY AND THEORY OF ARCHITECTURE AND PRESERVATION OF THE BUILT HERITAGE

ARTICLE RECEIVED / ACCEPTED: 14. 7. 2023. / 20. 12. 2023.



HOTEL ARCHITECTURE IN THE FRENCH COLONIZATION ERA THE CASE OF BISKRA CITY, ALGERIA

ARCHITECTURAL HERITAGE
ARCHITECTURAL TYPOLOGY
BISKRA, ALGERIA
FRENCH COLONIAL ARCHITECTURE
HOTEL

Often quoted as the queen of an oasian region, namely the Zibans, Biskra, a southern Algerian city, was a famous winter station renowned for its tourist character during the French colonization (1830-1962). This stimulated the colonizing authorities to build several hospitality buildings, the largest of which were edified using imported constructive techniques, but with local constructive materials and several local spatial organizations and regional decorative motives. In continuation of previous research work carried out by the first author of this article, this study aims to analyse and classify

Biskra's main hotels to draw up an architectural typology using Philippe Panerai's method. As a result, four models were identified within the corpus of the study, including seven (7) hotels. Its findings could be considered as strong, helpful support for future research in the field of architectural heritage, regardless of building typology, as well as an appropriate database for the heritage buildings' practical preservation. Moreover, such research work should inform about other various underrated and misjudged heritage buildings dating from the colonial era in Algeria.

INTRODUCTION

Biskra is a city located in Algeria, in the north-eastern part of the country (Fig. 2). Archaeological discoveries in Algeria indicate that man lived there over a million and a half years ago (Aumassip, 2001). Furthermore, Phoenician traders settled on the Mediterranean coast in the first millennium BC, calling it Ancient Numidia (Camps, 1979). After that Algeria became a Roman colony, known as Mauretania Caesariensis. Biskra is located on the southern edge of the Roman Numidian Limes, and was the frontier of Roman Numidia (Djouadi, 2018), with many military forts established along this defensive line (Baradez, 1949). The Romans laid out the first colo-

nized towns in a regular pattern, adopting the chessboard model (Benevolo, 1988).

In the 5th century AD, after the fall of the Roman Empire, Biskra was ruled by a succession of different civilizations, such as the Byzantines, Arabs, and Ottomans. The city remained a small oasis town during this period, and there is little information about its history (Agli, 1988).

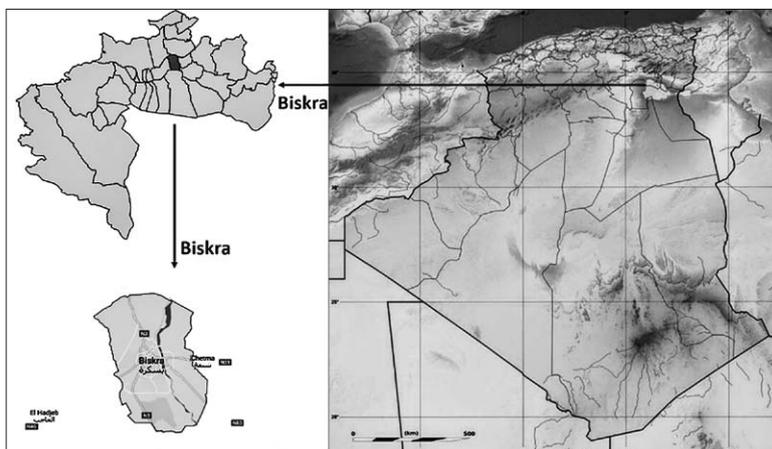
French colonization of Algeria began in 1830 and lasted for a period of 132 years. The country acquired its independence in 1962. Until 1870, Algeria was a territory managed solely by the French army (Grangaud, 2013). Indeed, it was to the military engineering department that all work necessary for the colonization (territorial planning, urbanization, and construction) of mixed and military territories was entrusted (Boufenara, 2017). Consequently, from the Algerian coast to the desert gates, various settlements were established, creating a network of towns, colonization centres, and villages (Lieussou, 1850). The urban organization of the colonial city is distinctive (Chaouche, 2013).

Nowadays, colonial urban and architectural heritages still constitute a main component of the urban landscapes and architectural features inside both large and small Algerian cities. This made it evident that post-industrial Algeria was built under French colonial occupation (Dali, 2002). It must be said that built colonial heritage is defined as architectural and urban products that emerged in Algeria during the 19th and 20th centuries, more precisely during the colonization period dating from 05 July 1830 to 05 July 1962 (Picard, 1994). In terms of architecture and urban planning, Algeria was a land of exploitation for the French. Two major styles could be identified, namely: i) the Conqueror's style, and ii) the Protector's style (Béguin, 1983).

The Conqueror's style encompassed three main architectural tendencies as follows: i) neoclassicism, ii) post-revolution, and iii) eclecticism (Table I). Whilst Neoclassicism was characterized by its recourse to Greco-Roman architectural components (Koch, 1978), the post-revolution architectural style, which emerged after the French Revolution, illustrated a distinct reference to Republican Rome (Salimbeni Bartolini et al., 1978; Senhadji, 2014). On the other hand, Eclecticism involved both a selection and a blending of various styles and different architectural components. Thus, this last neoclassical architectural tendency created a whole that has been considered tasteless or pastiche architecture (Epron, 1992).

The Protector's style is known as 'Arabisan-ce,' 'Jonhart's style,' or 'neo-Moorish'. The

FIG. 2 BISKRA CITY IN ALGERIA



latter one shall be used in our research. This style occurred during two distinct periods (Table II). Whilst the first era is of concern to official buildings achieved between 1900 and 1930, the neo-Moorish style emerged during the second one, namely post-second World War (1945). In Algeria, this architectural style was applied to some official buildings associating neoclassical components and Islamic architecture (Béguin, 1983). These latter referred to both Algerian Islamic and other Islamic territories' architectures.

Both styles constitute an integral part of Algerian architectural history during the last two centuries. They reflect the colonial political impulses, successively adopted by the French, which have directly influenced architectural and urban production. In order to impose themselves as colonizers and mark the conquered territory, they imported architecture from other places which categorically rejected the richness of local architecture (Picard, 1994). This style gave way to the Protector's style. It became a state style after Charles Jonnart issued directives to adopt it as a state style and *arabize* mainly public buildings (Béguin, 1983).

This architecture changes according to the reference model, and the 'neo-Moorish' of the north is different from that of the south since it obviously depends on the region, the available materials, the architect, his influence, his training, and the architectural program (Béguin, 1983).

Building materials were at the heart of the two styles adopted in Algeria. Stone, mud-brick (Adobe), wood, baked brick, tile, and other materials from the Industrial Revolution, as well as concrete, were used. The French also used locally available materials for the foundations of their colonies, as well as others imported from elsewhere and those salvaged locally after the destruction of buildings that hindered their policy of gutting and building new ones. This was done as early as 1830 (Deluz, 1988), together with transforming others to impose their policies and culture (Chenntouf, 1981). These materials were used in the 19th century with techniques imported from elsewhere and the use of a sophisticated local workforce (Chérif, 2017). For the French, Biskra was a field of experimentation in all fields, including construction. Raw earth bricks were the most widely used material in this region (Dali, 2001), reflecting local building know-how.

Most colonial cities were planned and built by French military engineers (Malverti and Picard, 1988). Additionally, these engineers played a significant role in tourism development as well as the conquest and exploration

TABLE I CHARACTERISTICS OF THE CONQUEROR'S STYLE

Style and Characteristics	Example
Neoclassicism <ul style="list-style-type: none"> – Regular plan – Alignment of Openings – Uniformity of Bays – Symmetry – Proportions 	 <p>Batna Theater, 2020</p>
Post-revolution <ul style="list-style-type: none"> – Geometry – Axial Symmetry – Ground Floor with Arcades – Openings on the Upper Floor with or without Balconies – Sloping Roof 	 <p>Residential building, Constantine, 2023</p>
Eclecticism <ul style="list-style-type: none"> – Utilisation of Large-Scale Stairs and Arches – Abundant Incorporation of Architectural Elements Such as Columns, Statues, Garlands, Balustrades, and Pilasters – Flanking Openings 	 <p>Sacred Heart Cathedral of Oran, 2023</p>

TABLE II CHARACTERISTICS OF THE PROTECTOR'S STYLE

Style and Characteristics	Example
Neo-Moorish 1900-1930 <ul style="list-style-type: none"> – Architectural elements are borrowed from Islamic art, such as the imitation of the minaret and the dome used in some official buildings. – The arches used include the horseshoe arch, semicircular arch, polylobed arch, and superimposed arch. – Columns, battlements, cornices, wall coverings, and ironwork. – Geometric and floral decoration, calligraphy, and muqarnas. 	 <p>Algiers Main Post Office, 2018</p>
Neo-Moorish of 1945 <ul style="list-style-type: none"> – Regularity. – Alignment of openings. – Utilization of domes and vaults in various brick forms. – Incorporation of architectural and decorative elements inspired by local architecture. – The decorative element is subtly pronounced. 	 <p>Adrar hospital, 2019</p>

of the desert (Arnaud, 2009). Considering tourism as a powerful colonization tool, they largely invested in it (Cantier, 2009). Undoubtedly, Biskra is one of the most well-known Algerian southern cities due to its tourist potential as well as its location on the southern side of the Aurès Mountains and the northern Sahara desert's border (Roger, 2017). During the colonial period, Biskra gradually transformed into a large oasis with a picturesque tourist attractiveness for European holidaymakers (Pizzaferrì, 2011). To attract more Europeans, the colonizer built several excursionist hospitality buildings including hotels. This colonial city, which the French researcher described as the colonial checkerboard (Courtillot, 1985), saw rapid urbanization during the post-independence era. At present, its historic colonial town centre is faced with several challenges, such as the recognition of its local cultural heritage and the related preservation (Zerari et al., 2020). Indeed, this era's architectural heritage and particularly Biskra's hospitality buildings remain unknown. The situation has unfortunately grown as a result of the lamentable state of degradation in addition to the demolition of several masterpieces during the post-independence period. Such a situation accentuates the ignorance of this legacy and its various qualities.

Architectural history in Algeria has traditionally focused on the pre-colonial period, such as the Ottoman period (Benyahia et al., 2021), while the 19th and 20th centuries have been largely neglected, with a focus on European architecture instead. Effectively, both colonial urbanism and architecture, dating from this period, have been very recently introduced to the Algerian syllabus for academic training in the field of architecture. The related course presents the history of architecture in Algeria in the 19th and 20th centuries. This research aimed to enrich such knowledge similarly to the ones investigating both housing and public buildings in Biskra city (Belakehal et al., 2015; Zendagui and Belakehal, 2019; Dali and Belakehal, 2019) and other places in Algeria (Mohdeb et al., 2023).

This study focuses on Biskra's colonial heritage, particularly its architectural character, as revealed through a typological analysis. The used methodology is mostly based on approaches associated with historical, urban, and architectural morphology. Even though its major founding dates back to the end of the 19th century, typological analysis remains widely used by architectural researchers today. It aims to: i) identify the typological characteristics defining Biskra's colonial-era hotels, ii) state the presence or absence of such characteristics in the case of

other public buildings from the same era and the same area, and iii) assess how much this research methodology could be used for further studies investigating the colonial urban and built heritage.

MATERIALS AND METHODS

Most of the archives of southern Algeria's towns dating from the colonial period (1832-1962) could be found in France, either at the 'Centre Historique des Archives' located in the Chateau de Vincennes or the 'Centre d'Archives du 20^{ème} siècle' (Cité de l'Architecture et du Patrimoine) both in Paris, or L'ANOM (Archives nationales d'outre-mer) in Aix en Provence. However, there are only few graphic documents available there about the public buildings. Thus, the buildings themselves were the main source of information. In addition to the fieldwork, locally found historical data, as well as textual and graphic documents, were used for this research work.

The study adopts typology as an approach allowing the identification as well as the classification of types within a corpus of buildings while considering their diverse specificities. Being evenly applied to a set of numerous elements in the same urban fabric, this method's objective is to set up a typology illustrating: i) the types' variations, ii) their general and/or particular formal composition, logic, and order, and iv) the transition process from one type to another. Both Italian and French architecture schools are recognized to be those that have formerly widely applied and developed this approach (Muratori, 1959; Caniggia, 1963; Rossi, 1966; Aymonino, 1973; Castex et al., 1980). Recently, and still on a larger scale, it has been used by several authors for other cities as case studies (Leite and Justo, 2017; Le Fort, 2018; Fraisse and Fadin, 2020).

At the building scale, Petrovska (2010) attempted to enrich heritage knowledge through typology studies that employed a prolific method and allowed the classification of various built structures. Recently, research work has explored and analyzed the formal characteristics of the construction (Santos et al., 2013). Another typological analysis has been applied to a corpus selected from the old center of Seixal by Ollagnier (2016). He undertook a typological inventory aiming to establish a history of Parisian housing over the period from 1770 to 1830. The collected archives used for this research work were mainly graphic, including that era's architects' drawings. Moreover, typology is used to analyze different wooden structures of the Church of the Nativity (Macchioni, 2021). Hence, this research is supported by investi-

gations on structural typologies and the outcomes allowed the description of various used wood.

In this work, a typology analysis of Biskra colonial city's hotels will be mainly respectful to the methodological process of Panerai et al. (1999) due to its relevance for the typological analysis of historic cities. This method is constituted by four phases: i) the definition of the corpus, ii) the preliminary classification, iii) the identification of the types, and iv) the typology constitution.

This study is related to outcomes presented in previous research, dealing with a single object among the considered corpus, which is the hotel of Sahara (Dali and Belakehal, 2019). In addition to the archive's documents, this study-related collected data is issued from the master's students' works undertaken in the Department of Architecture at the University of Biskra, Algeria. Each of these heritage-related master's dissertations includes a historical study and an architectural survey of a hotel building considered, for the second time, for a design project aiming at its preservation (Zine-El-Abidine, 2014; Bendib, 2014; Rebbouh, 2014; Aidaoui, 2015; Benseghiar, 2015). As a final step, a field survey has been subsequently undertaken in order to check the information found in these masters' dissertations.

DEFINITION OF THE CORPUS AND PRELIMINARY CLASSIFICATION

Nowadays, the checkerboard pattern colonial urban fabric of Biskra has become a small district within a growing city. This old typically colonial city was first planned by military engineers and then developed during three main phases (Fig. 3; Agli, 1988; Dali, 2002; Sriti et al., 2002). Its old renowned tourist character was widely illustrated by its rich architecture and hotel facilities (Fraser, 1911).

Biskra acquired its universal reputation for the development of hospitality structures (Fig. 1). The archives inform about the existence of a large number of hotels in Biskra well before 1890. For instance, the hotel Sahara (1856-1862) and hotel Oasis (1888), as well as inns like Médan and Bourguignon. And then, several luxury hotels were built, such as the Palace hotel (1893), Royal hotel (1895), and the Victoria hotel. Also, less important structures were realised like the Hotel des Ziban, the Hotel of Orient, the Excelsior Hotel, the Hotel des Familles, the Terminus Hotel (1925), the Hotel de la Gare, the Hotel de L'Europe, the Café-Hôtel-Restaurant and also the charming Robinson Crusoe Inn. Around 1920, the internationally renowned Transatlantic Hostelling Company decided to

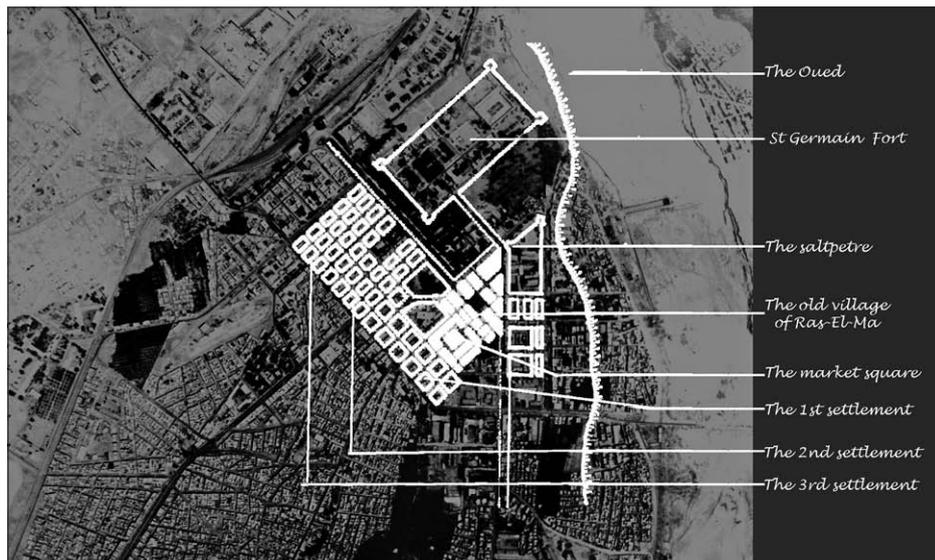


FIG. 3 EVOLUTION OF THE OLD, TYPICALLY COLONIAL CITY OF BISKRA

build a hotel in Biskra. Moreover, nineteen years later, the Hotel of Ziban became its annex and harboured the staff catering to winter visitors.

Nowadays, the situation of this colonial-era heritage is very dire, making its preservation nearly impossible. The current state of this historic area and its buildings is disastrous, possibly stemming from the disengagement of its inhabitants and the neglect of local authorities toward this colonial heritage.

Among numerous hospitality structures built in Biskra city, the corpus of hotels considered for this study has been dependently constituted on the related data availability. Due to the lack of valid and authentic historical textual and graphic sources, several buildings were not considered, such as the very famous Royal Hotel and the more modest Oasis Hotel. Finally, seven (07) hotels constitute this study's corpus as follows (Table III): i) Sahara, ii) Casino Palace, iii) Victoria, iv) Ziban, v) Transatlantique, vi) Terminus, and vii) Hammam (hotel) El-Salahin.

IDENTIFICATION OF HOTEL TYPES

For the first classification, six characteristics were adopted: i) Location and land use, ii) the orientation and the shape of the building, iii) the number of floors, iv) spatial-functional organization, v) the architectural style, and vi) the construction materials.

- **Location and land use** – The hotels' location and land use are examined: i) with reference to the historical evolution of the colonial city, as well as ii) considering the transition to urban space allowing access to the hotel and exhibiting it as an urban scene

TABLE III PRESENTATION OF THE STUDY CORPUS

Hotel / Monograph	View
<p>Hotel of Sahara</p> <p>Built between 1854 and 1861 by the head of the Médan household, the Hotel of Sahara seems to be the oldest in Biskra. It is located on Berthe Street (nowadays Boulevard de la République) facing the main public garden of the colonial city.</p>	
<p>Casino Palace hotel Complex</p> <p>The Casino Palace Hotel also called "Circle of Foreigners" is a tourist complex designed by architect Alexandre Ballu in 1893. It is located south of the colonial town on the street leading to the town of Touggourt.</p>	
<p>Victoria hotel</p> <p>The Victoria Hotel was built at the end of the 19th century by the German Oser Auguste. Far from the original city center, it is located on the formerly called Gambetta Boulevard (nowadays boulevard of 1st November 1954), at the end of the northern district of the new city, a quiet and peaceful area.</p>	
<p>Hotel of Ziban</p> <p>Formerly built as a convent of the sisters of Charity and the White Fathers, this building was designed in 1872 according to architect Domimnon's drawings. In 1911, its new owner, namely Donin De Rosière, reconverted Cardinal Lavigerie's former residence into a hotel. Between 1920 and 1939, the hotel became an annex of the hotel Transatlantique.</p>	
<p>Transatlantique hotel</p> <p>The Transatlantique Hotel is located outside but not far from the checkerboard pattern colonial urban fabric, and next to the Palace hotel as well as on the street leading to Touggourt. It was designed by architect Guiauchin and built by the Rodari Brothers' Company between 1916 and 1920.</p>	
<p>Terminus hotel</p> <p>Located near the Victoria Hotel, the Terminus Hotel was built in 1925 and managed by Barthélemy Sanino and his wife.</p>	
<p>Hammam-Es-Salahin</p> <p>The Hammam is located 7 km northwest of Biskra city. At the end of the 19th century, the baths became more or less internationally famous, and the commune entrusted the Biskra company with the management of the place. This company built a bathing establishment on the site of the spring and laid out a pleasure park. The new building was designed by architect Albert Ballu.</p>	

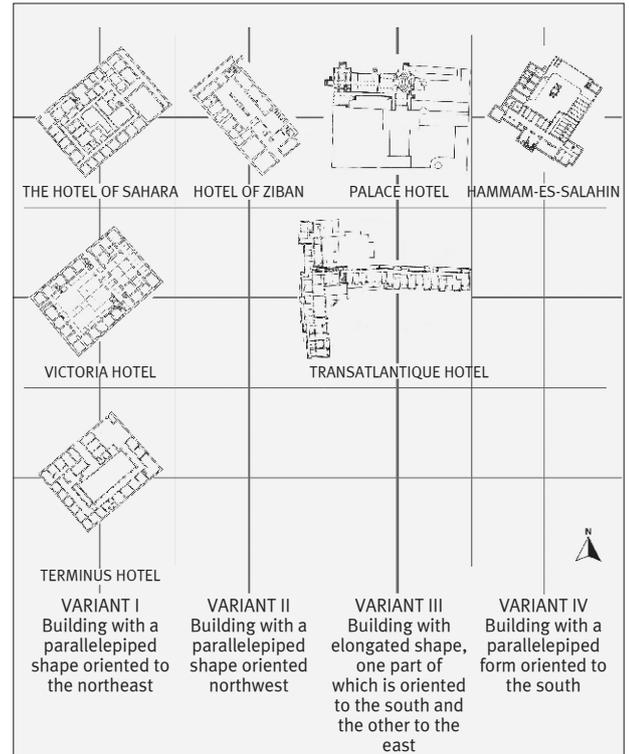
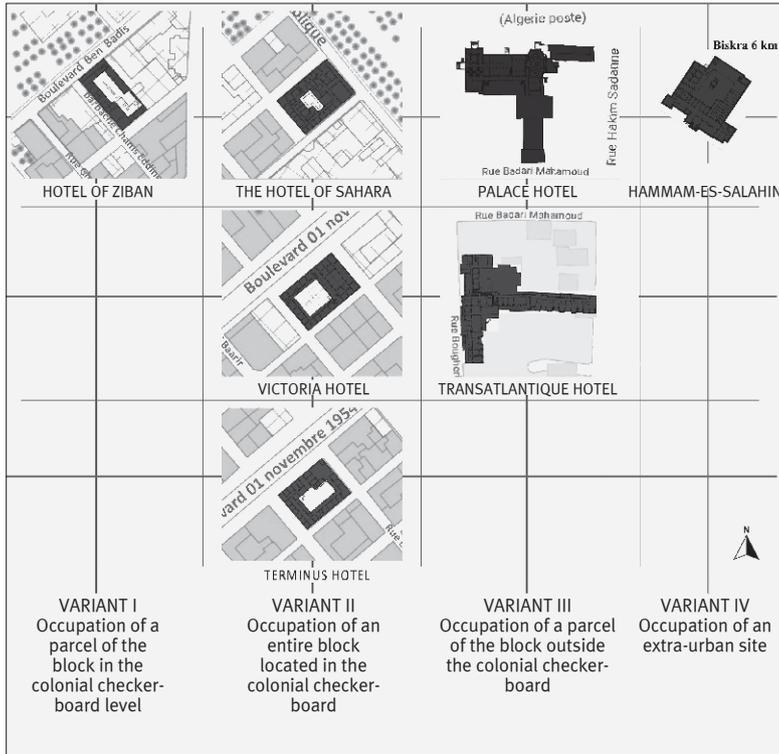


FIG. 4 LOCATION AND LAND USE

FIG. 5 ORIENTATION AND SHAPE OF THE BUILDING

component (Fig. 4). Hence, in the first stage area of the colonial city, the hotel occupied a plot or a block as it is shown by the case of the Ziban hotel.

In a further stage and precisely inside what is namely known by the checkerboard pattern urban fabric, we first notice the occupation of an entire block as observed in the hotel of Sahara, the Victoria hotel, and the Terminus hotel. However, a difference exists between the first hotel and the two others. Whilst the first one includes an urban gallery (with arcades) closely adjacent to the street's border, it is a wide, urban open-to-sky esplanade that precedes the Victoria and Terminus hotels' entrances.

Thirdly, outside of the checkerboard pattern urban fabric area and similar to those of the colonial city's first stage, the hotel occupied a plot within a block. However, the size of the plot is larger when compared to the case of the Ziban hotel. Both Palace hotel and Transatlantic hotel represent this variant but differ in terms of inclusion or exclusion of a wide urban open-to-sky space. Finally, the fourth variant is the occupation of an extra-urban site illustrated by Hammam-Es-Salahin

• **Orientation and shape of the building** – Four variants have been identified in terms of the building's orientation and shape (Fig. 5). The first variant is that of a building with a parallelepiped shape oriented to the northeast, such as the hotel of Sahara, the Victoria

Hotel, and the Terminus Hotel. However, these last two cases differ slightly from the first, because their main façades are oriented northwest, unlike the hotel of Sahara's main façade, which is oriented northeast. This orientation is mainly due to the urban hierarchical importance of the street where the hotel's main entrance is located.

The second one is related to a building with a parallelepiped shape, oriented northwest, as in the case of the hotel des Ziban. The third variant includes two buildings of elongated shape, one part of which is oriented to the south and the other to the east: The Palace hotel is L-shaped whilst the Transatlantic hotel is T-shaped. This configuration seems to be an aerial characterization illustrating the first letter (T) of the name of a hotels' chain that was very famous during this era. The last variation is a building with a parallelepiped shape and oriented to the south, that is Hammam-Es-Salahin's case.

• **Number of floors** – Although the height of buildings is limited in the Biskra region, due to both climatic and geotechnical constraints (resistance of the natural soil), three construction variants are identified in terms of the number of floors (Fig. 6). The first variant is the building composed of an underground floor; two-floor levels topped by an attic. This is the case with the hotel of Sahara, the Ziban hotel, and the Terminus hotel. The second

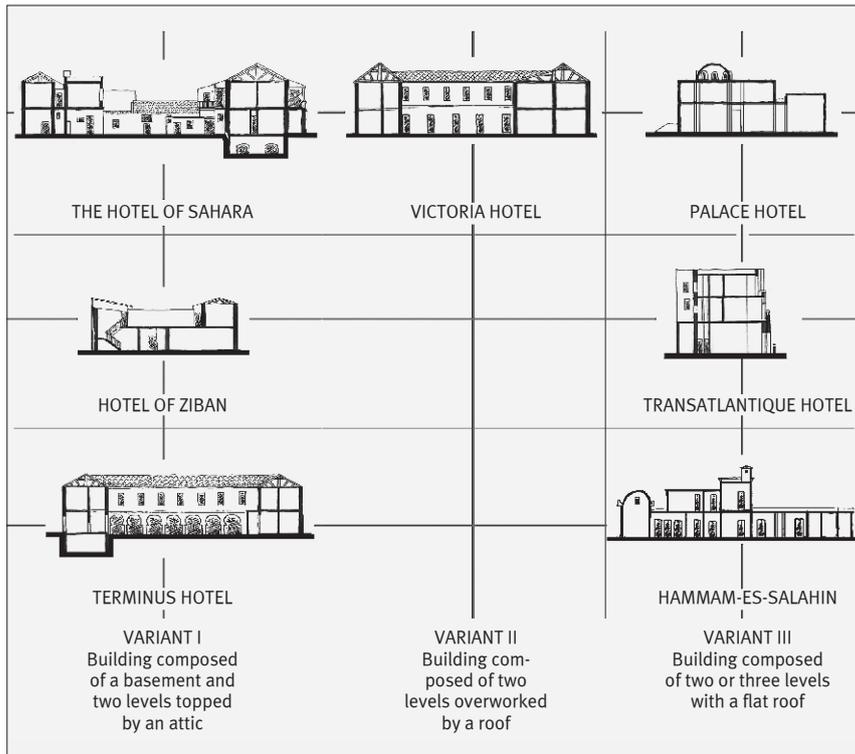
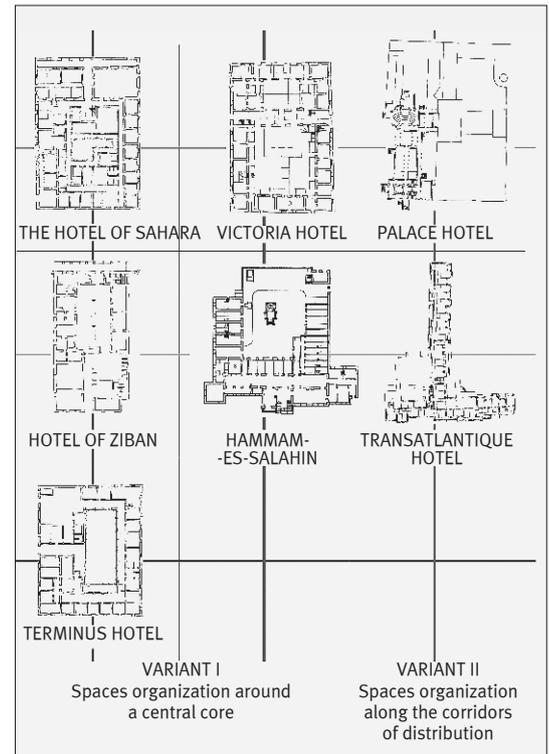


FIG. 6 NUMBER OF FLOORS

FIG. 7 SPATIAL-FUNCTIONAL ORGANIZATION



variant is that of the building composed of two levels overworked by a roof, such as the Victoria hotel. Finally, a building with two or three levels, covered by a flat roof that may or may not include an underground floor, such as the case of the Palace hotel, the hotel Transatlantique, and Hammam-Es-Salahin.

- **Spatial-functional organization** – In terms of spatial-functional organization, only two variants are detected: i) a set of interior spaces surrounding a central core (a garden or courtyard) that is illustrated by the major number of case studies (hotel of Sahara, Victoria Hotel, hotel of Ziban, Terminus Hotel and finally Hammam-Es-Salahin), and ii), a set of interior spaces arranged on either side of the distribution corridor or along one side only (The Palace Hotel and the Transatlantic Hotel; Fig. 7).

- **Architectural style** – In the checkerboard pattern colonial urban fabric, two styles are mainly identified while presenting several variants for each of them (Fig. 8). First, we can identify the buildings designed with respect to the Conqueror's style, and more precisely the post-revolution variant, such as the hotel of Sahara and the hotel of Ziban. In respect of the same style, but according to the neo-classical variant, the Victoria Hotel and the Terminus Hotel are recognized. For the first variant, we can notice: Geometry, ii) Axial Symmetry, iii) Ground Floor with Arcades

- iv) Openings on the Upper Floor with or without Balconies, and v) Sloping Roof.

For the second one, the following components could be detected: i) Regular plans and elevations, ii) Alignment of Openings, iii) Uniformity of Bays, and iv) Symmetry.

Differently, the last variant consists of those buildings respectful of the protector's style principles such as the Palace Hotel, the Transatlantic Hotel, and Hammam-Es-Salahin. Their main characteristics are: i) Architectural Elements Inspired by Islamic Art, ii) Arches, iii) Columns, and iv) Geometric Decoration.

- **Building materials** – The buildings of the checkerboard pattern urban fabric are largely constructed with local materials (Fig. 9), in particular the mudbricks (Adobe). This is the main building material in many of our case studies (the hotel of Sahara, the Victoria Hotel, and the Ziban Hotel). Whilst this material was locally extracted, the construction techniques were somewhat developed when compared to traditional local ones. Besides, stones were used in three buildings: the Palace Hotel, the Transatlantic Hotel, and the Terminus Hotel. In addition to traditional local materials, various other materials have been introduced to the region, including I-beams (IPN), timber beams, tiles, fired bricks, and more. These materials have been employed in foundations, walls, ceilings, and roofs, effectively adapting to both earthen

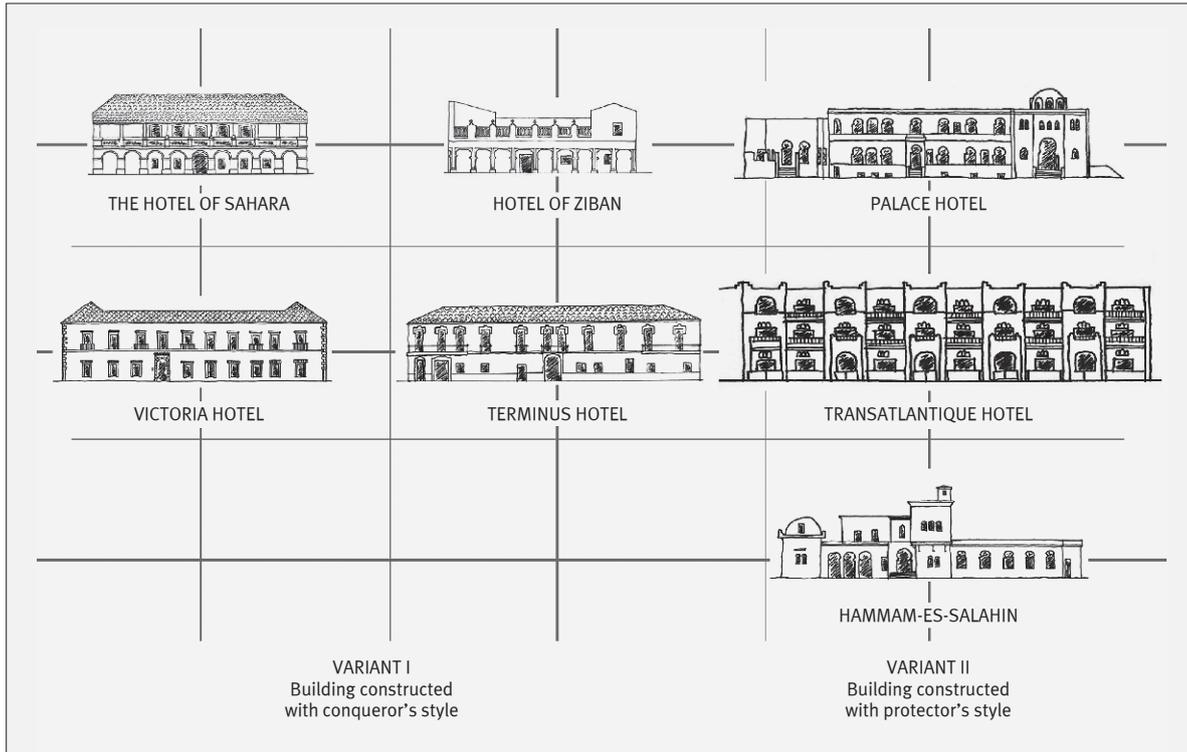


FIG. 8 ARCHITECTURAL STYLE

and stone structures. Singularly, the use of cement concrete as a structural building material with a hollow brick masonry filling has been identified for the case of Hammam-Es-Salahin.

DISCUSSION

This research's main outcome is the identification of four typological models among a corpus of Biskra's colonial-era hotels and with respect to its urban expansion stages (Fig. 10). One of these typological models has three variants, the second comprises two whilst, the other two typological models encompass only one variant each.

The first typological model seems to be the most widespread in the colonial city of Biskra including the hotel of Sahara, the Victoria Hotel, and the Terminus Hotel. This typological model is characterized by its occupancy of a standard block's total area inside the checkboard pattern urban fabric. A public transition space is provided as a large esplanade or an arcade gallery at the ground floor level on the main facade side. These buildings include an internal open-to-sky space (garden or courtyard; Fig. 12). Because the urban block is geometrically rectangular and oriented towards the northeast, the hotel is respectful of these constraints and has a parallelepiped shape that follows the same orientation. In

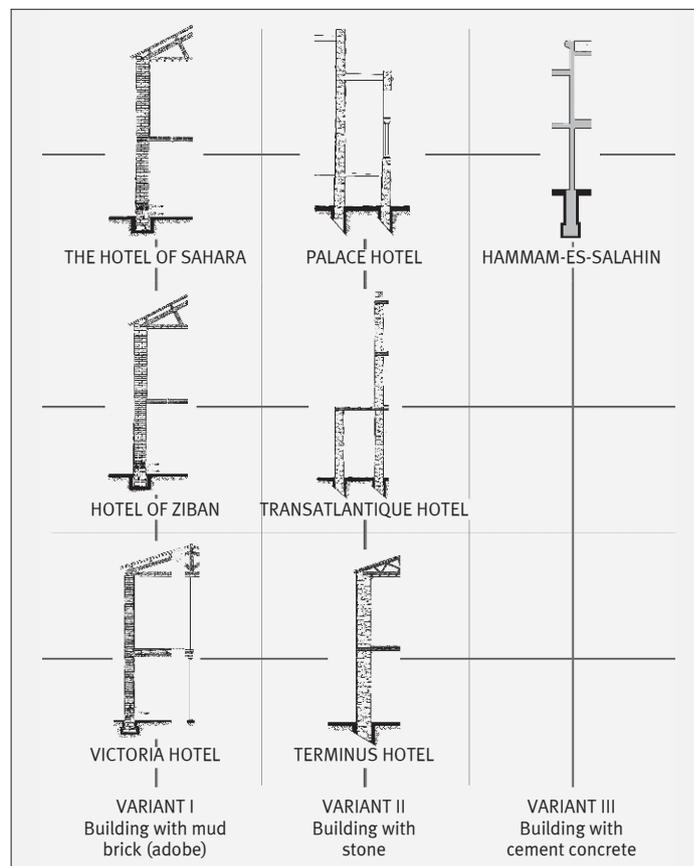


FIG. 9 BUILDING MATERIALS

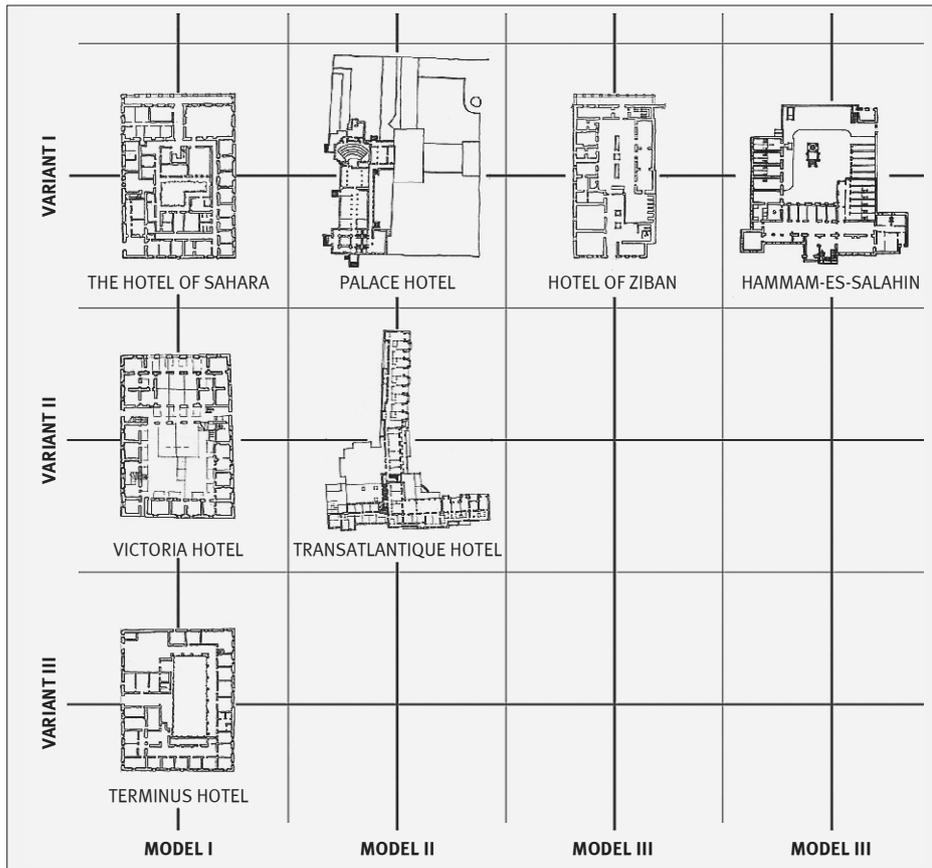


FIG. 10 TYPOLOGY OF COLONIAL-ERA'S HOTELS IN BISKRA CITY

all three studied cases, local materials were used whether earth or stone. It is also worth mentioning that all the hotels of the first typological model are designed according to the Conqueror's style, either post-revolution or neo-classical.

The second typological model contrasts with the previous one in terms of the building's occupancy. At first instance, we can notice that the buildings have a very important complex-shaped urban block and are located outside the checkerboard pattern-based colonial urban fabric. It concerns the Palace hotel and the Transatlantic hotel. The building occupies an internal part of the plot while being surrounded by open-to-sky spaces (garden, courtyard). The building can have a T- or L-stretched shape, and its orientation is either toward the south or the east. It could be composed of three levels or two levels and a roof terrace, with or without an underground floor. The spatial-functional organization aligns the internal spaces along the distribution corridors and sometimes patios. The main construction material is stone whilst the 'neo-

Moorish / Orientalist' is their specific architectural style (Fig. 11).

The third typological model is not very distinct from the first as it occupies a plot of a block located in the checkerboard pattern urban fabric. However, the urban block is very different from those of the first typological model. It is larger and has an irregular shape as is the case of the hotel of Ziban. Nevertheless, the hotel has a parallelepiped shape oriented to the northwest and consists of an underground level, two upper floors, and an attic. The whole is built with mudbricks (Adobe; Fig. 13), and is organized around an internal open-to-sky space (garden or courtyard). The dominant architectural style of the hotel is the Conqueror (post-revolution) one.

The last typological model is exclusively related to Hammam-Es-Salahin even if its original shape linked it to the first typological model with its parallelepiped shape. However, due to its location outside the city of Biskra, the urban block's size differs absolutely from the city hotels. The building is south-oriented and has two levels with a flat roof. It is built with a cement concrete structure and a masonry infill. The style used is 'neo-Moorish'. This building is distinct from other case studies by its dual functional status, which includes both thermal (therapeutic) and tourist activities, varying according to the year's seasons and the time of the day.

Finally, the variations observed in the typology of colonial-era hotels in Biskra can be primarily attributed to the intricate interplay between the expansion of the colonial city of Biskra in terms of land use and architectural style. Initially, as the colonial village and the checkerboard-patterned colonial urban fabric began to take shape, the hotels did not uniformly occupy the entire city block within their respective limits. In one particular case study, a departure from this norm is evident, as it is encircled by open urban space. Nevertheless, it is noteworthy that all these hotels, including those located outside the city center, were fashioned in a 'neo-Moorish' architectural style. This characteristic stands in stark contrast to the style of hotels constructed within the original colonial village and the checkerboard-patterned colonial urban fabric.

CONCLUSION

A type and/or typology-based research work should allow an enhancement of the human perception of the built environment we live in. Also, it could improve the identification,



FIG. 11 USE OF DOMES, COLUMNS AND ARCHES IN THE ARCHITECTURE OF THE PALACE HOTEL



FIG. 12 SAHARA HOTEL COURTYARD



FIG. 13 THE DAMAGED PLASTER WALL OF THE HOTEL OF ZIBAN REVEALS THE UNDERLYING MUDBRICK CONSTRUCTION

recognition, and discovery of the basic types of the old and new buildings' characteristics surrounding us. Moreover, it allows going beyond by detecting the continuities and/or discontinuities between their architectural features. Such outcomes will allow the creation of a new built environment that is respectful of its local heritage and adequately preserves it.

In such a way, the case of the hospitality buildings in the Algerian southern city of Biskra remains very significant because of their strong visual presence in the centre of the city in addition to their distressing situation from the cultural and historical point of view. Effectively, the typology of the hotels in Biskra led us to an understanding of colonial-era architecture. On one hand, it turns out that colonial architectural style cannot be absolutely identified according to period and a region. The outcomes show that the use of some features of the style of the Conqueror occurred even during a late date in the 20th century (case of the hotel Terminus). On the other hand, it has been revealed that the

'neo-Moorish' style's resources are not only of regional influence but rather national (this is the example of the Transatlantic hotel). This is probably due to the choices, influence, and background of the architect, but also the expectations of the clients.

In conclusion, and due to the limited number of case studies, this research did not cover all the situations and certainly will not be able to identify all the typological models. However, it contributes to the construction of a methodology to be followed to establish the typology with all the typological models and variants enclosed by them. Moreover, this methodology is embellished with a process that values the architectural components. Besides, this methodological process cannot be absolute and unyielding when applied and should consider all historically varied data related to Biskra's hotels. It is beyond doubt what should allow the constitution, or at least, the contribution to setting up plural and interdisciplinary methodological protocol in the field of architectural research of built heritage.

BIBLIOGRAPHY AND SOURCES

1. AGLI, N. (1988) *Analyse urbaine et extension du centre de Biskra*. Magister dissertation, ENSAP Villemin, Paris, France.
2. AIDAOU, N. (2015) *Réhabilitation de l'hôtel Transatlantique en hôtel de 3 étoiles*. Master dissertation, Université de Biskra, Biskra, Algeria.
3. ARNAUD, B. (2009) *Le rôle des militaires français dans la mise en valeur d'un tourisme au Sahara de la fin du XIXe siècle aux années 1930. Le Tourisme dans l'Empire français, Politiques, pratiques et imaginaires (XIXe-XXe siècle) : un outil de la domination coloniale*. Paris : Publication de la SFHOM, pp. 79-96.
4. AUMASSIP, G. (2001) *L'Algérie des premiers hommes*. Éditions de la Maison des sciences de l'homme, Éditions Ibis Press. <https://doi.org/10.4000/books.editionsmsmh.6563>
5. AYMONINO, C. (1973) *L'Abitazione Razionale : Atti dei Congressi CIAM 1929-30*. Marsilio.
6. BARADEZ, J. (1949) *Fossatum Africae. Recherches aériennes sur l'organisation des confins sahariens à l'époque romaine*. Arts et métiers graphiques.
7. BÉGUIN, F. (1983) *Arabisations, Décor architectural et tracé urbain en Afrique du Nord 1830-1950*. Dunod.
8. BELAKEHAL, A.; BOUSSORA, K.; FARHI, A. and SRITI L. (2015) "A Morphological Analysis of the French Colonial Architecture in Algeria: The Facades of Biskra". *Revue Courrier du Savoir Scientifique et Technique*, pp.153-166.
9. BENDIB, H. (2014) *Mise en valeur et réhabilitation de l'hôtel Victoria*. Master dissertation, Université de Biskra, Biskra, Algeria.
10. BENEVOLO, L. (1988) *Tom I: Histoire de l'architecture moderne, Tom II: La révolution industrielle, Tom II: Avant-Garde et mouvement moderne (1890-1930), Tom III: Les Conflits et l'après-guerre Bourdas*.
11. BENSEGHIAR, I. (2015) *La réhabilitation de l'hôtel contrôle financier (Hôtel Terminus) en Centre multifonctionnel*. Master dissertation, Université de Biskra, Biskra, Algeria.
12. BENYAHIA, L.; HAMOUDA, A. and MOFFOK, N. (2021) "Decoding the Spatial Configuration of the Ottoman Palace "Khdewedj El Amia" in Algiers (Algeria) through Space Syntax". *Prostor*, 29(2/62/), pp. 198-211. [https://doi.org/10.31522/p.29.2\(62\).4](https://doi.org/10.31522/p.29.2(62).4)
13. BOUFENARA, K. (2017) *Le rôle du Génie militaire dans la production des villes coloniales en Algérie. Annaba et Constantine*. Doctoral dissertation, Département d'architecture et d'urbanisme, Constantine 1.
14. BURLIN, K.; CASTEX, J.; CÉLESTE, P.; FURET, C. and PANERAI, P. (1980) *Lecture d'une ville : Versailles*. Moniteur.
15. CAMPS, G. (1979) "Les Numides et la civilisation punique". *Antiquités africaines*, 14, pp. 43-53.
16. CANIGGIA, G. (1963) *Lecture di una città*. Centro Studi di Storia Urbanistica.
17. CANTIER, J. (2009) *Représentations du tourisme saharien dans la revue Algeria (1933-1961). Le Tourisme dans l'Empire français, Politiques, pratiques et imaginaires (XIXe – XXe siècle) : un outil de la domination coloniale*. Paris, Publication de la SFHOM, pp. 145-153.
18. CHAOUCHE, S. (2013) "L'impact de l'urbanisme colonial sur la fabrique de la ville algérienne". *Sciences & Technologie*, 37, pp. 39-50.
19. CHENNTOUF, T. (1981) "L'évolution du travail en Algérie au XIXe siècle". *Revue de l'Occident musulmans et de la Méditerranée*, 31, pp. 85-103.
20. CHÉRIF, N. (2017) "Alger, 1830-1980 : chronique d'une historiographie en construction". *Perspective*, 2, pp. 131-152. <https://doi.org/10.4000/perspective.7596>
21. COURTILLOT, J.P. (1985) "Damier colonial et extensions contemporaines, Biskra". *Architecture Mouvement Continuité*, 48, pp. 77-81.
22. DALI, A. (2001) *Étude et revalorisation du patrimoine architectural de terre, cas des ksour dans le sud algérien*. Magister dissertation/thesis, Université de Biskra, Biskra, Algeria.
23. DALI, A.I. and BELAKEHAL, A. (2019) *Style architectural des monuments de l'époque coloniale : cas de l'Hôtel du Sahara à Biskra, Algérie, Conservation et mise en valeur du patrimoine architectural et paysagé des sites côtiers méditerranéens*. Franco Angeli, pp. 1343-1354.
24. DALI, R. (2002) *Étude et conservation de l'architecture coloniale dans les milieux aride et semi-aride : cas de Biskra*. Magister dissertation/thesis, Université de Biskra, Biskra, Algeria.
25. DELUZ, J.J. (1988) *L'urbanisme et l'architecture d'Alger, Aperçu critique*. Pierre Mardaga.
26. DJOUADI, H. (2018) *Vers une actualisation et transmission des connaissances sur les sites archéologiques romains du Limes africain. Cas de la région de Biskra*. Magister dissertation/thesis, Université de Biskra, Biskra, Algeria.
27. EPRON, J.P. (1992) *L'éclectisme technique*. Parenthèses.
28. FRAISSE, P. and FADIN, L. (2020) "Délôs : études de morphologie urbaine I. Objectifs et méthodes". *Bulletin de correspondance hellénique*, 144. <https://doi.org/10.4000/bch.1118>
29. FRASER, J. (1911) *The land of veiled women: some wanderings in Algeria, Tunisia and Morocco*. Cassell and company.
30. GRANGAUD, I. (2013) "La Hawma : les processus de disqualification d'une institution ottomane (Alger 1830)". *Insaniyat*, 59, pp. 105-132. <https://doi.org/10.4000/insaniyat.13950>

AUTHORS' BIOGRAPHY AND CONTRIBUTIONS

31. HALDON, J.F. (2014) *The Byzantine Empire in the Seventh Century: Transformation and Decline*
32. KOCH, W. (1978) *Comment reconnaître les styles en architecture de la Grèce antique au XXe siècle*. Solar.
33. LEE, C.M. (2016) "Type and the developmental city: housing Singapore". *The Journal of Architecture*, 20, pp. 988-1031. <https://doi.org/10.1080/13602365.2015.1115419>
34. LEITE, J.S. and JUSTO, R. (2017) *Typo-morphology: From research to architectural education. Architectural Research Ad-dressing Societal Challenges*. Florida: CRC press, pp. 1175-1182.
35. LEVY, A. (2005) "Formes urbaines et significations : revisiter la morphologie urbaine". *Espaces et sociétés*, 122, pp. 25-48. <https://doi.org/10.3917/esp.122.0025>
36. LE FORT, B. (2018) "Recyclage de l'urbain bruxellois. Analyse typo-morphologique : les tissus mixtes bruxellois". *Lieux dits*, 15, pp. 17-20. <https://doi.org/10.14428/ld.vi15.23393>
37. LIEUSSOU A. (1850) *Etudes sur les portes de l'Algérie*. Impr. de P. Dupont.
38. MACCHIONI, N.; BRUNETTI, M.; PIZZO, B.; BURATO P. & NOCETTI, M. (2021) "The timber structures in the Church of the Nativity in Bethlehem: Typologies and diagnosis". *Journal of Cultural Heritage*, 13, pp. 42-53. <https://doi.org/10.1016/j.culher.2012.11.004>
39. MALVERTI, X. and PICARD, A. (1988) *Villes coloniales fondées entre 1830 et 1880 en Algérie*. Doctoral dissertation, Ministère de l'équipement, du logement, de l'aménagement du territoire et des transports / Bureau de la recherche architecturale (BRA); Ministère de la recherche et de l'enseignement supérieur; Ecole nationale supérieure d'architecture de Grenoble / Association grenobloise pour la recherche architecturale (AGRA). hal-01902566.
40. MOHDEB, R.; ATTAR, A. and SARAOU, S. (2023) "Forging the City Image during the French Colonial Period (1883-1962) in the Case of Jijel (Algeria)". *Prostor*, 31(1/65/), pp. 96-111. [https://doi.org/10.31522/p.31.1\(65\).9](https://doi.org/10.31522/p.31.1(65).9)
41. MONEO, R. (2016) "Typology in the context of three projects: San Sebastian, Lacua, Aranjuez". *The Journal of Architecture*, 20, pp. 1067-1087. <https://doi.org/10.1080/13602365.2015.1116347>
42. MURATORI, S. (1959) *Studi per una operante storia urbana di Venezia*. Libreria dello Stato.
43. OLLAGNIER, C. (2016) "La maison, 1770-1830 : représentation d'un nouveau programme". *Livraisons de l'histoire de l'architecture*, 32, pp. 53-63. <https://doi.org/10.4000/lha.637>
44. PANERAI, P.; DEPAULE, J.-C. and DEMORGON, M. (1999) *Analyse urbaine*. Parenthèses.
45. PETROVSKA, I.T. (2010) "The Triconch at Tudence: A Short Analysis of the Type in the History of Architecture". *Macedonian Historical Review*, 1, pp. 81-88.
46. PICARD, A. (1994) "Architecture et urbanisme en Algérie. D'une rive à l'autre (1830-1962)". *Revue des mondes musulmans et de la Méditerranée*, 73(1), pp. 121-136.
47. PIZZAFERRI, P. (2011) *Biskra Reine des Ziban et du sud constantinois*. 4 vols. Jacques Gandini.
48. REBBOUH, A. (2014) *La réhabilitation de l'hôtel des Zibans en hôtel de trois étoiles*. Master dissertation, Université de Biskra, Biskra, Algeria.
49. ROGER, B. (2017) *Biskra, sortilèges d'une oasis*. Institut du Monde Arabe.
50. ROSSI, A. (1966) *L'architettura della città*. Citta Studi.
51. SALIMBENI BARTOLINI, L.; BRUSCHI, A. and MARIANI MIARELLI, G. (1978) *Lineamenti di storia dell'architettura : per i corsi di storia dell'architettura*. Sovera.
52. SANTOS, C.; FERREIRA, T.M.; VICENTE, R. and DA SILVA A.R.M. (2013) "Building typologies identification to support risk mitigation at the urban scale – Case study of the old city centre of Seixal, Portugal". *Journal of Cultural Heritage*, 14, pp. 449-463. <https://doi.org/10.1016/j.culher.2012.11.001>
53. SENHADJI, D. (2014) "La cathédrale du Sacré-Cœur d'Oran (1898-1913)". *Mélanges de la Casa de Velázquez*, 44-2, pp. 249-278. <https://doi.org/10.4000/mcv.5838>
54. SRITI, L.; BELAKEHAL, A., BOUSSORA, K. & SAOULI A.Z. (2002) "Le damier colonial de Biskra ou l'histoire de la marginalisation d'un centre-ville". *Courrier du Savoir*, pp. 53-59.
55. ZENDAGUI A.A. and BELAKEHAL, A. (2019) "La reproduction de l'habitation troglodyte vernaculaire aux temps 'modernes'. Cas d'un projet d'habitat du 'plan de Constantine' a Biskra (sud-est Algérien)". *International Journal of Control, Energy and Electrical Engineering (CEEE)*, pp. 37-41.
56. ZERARI, S.; SRITI, L. and PACE, V. (2020) "Morphological diversity of ancient minarets architecture in the Ziban region (Algeria): The question of form, style and character". *METU Journal of the faculty of architecture*, 37, pp. 127-152. <https://doi.org/10.4305/METU.JFA.2020.2.6>
57. ZINE-EL-ABIDINE, M. (2014) *Mise en valeur de l'hôtel (Palace) à Biskra, actuellement maison de la culture*. Master dissertation, Université de Biskra, Biskra, Algeria.

AMDJED ISLAM DALI, a conservation architect and earthen architecture specialist, holds a B.Arch., M.Sc. and postgraduate from ENSAG. He's a Ph.D. candidate focusing on colonial hotel architecture heritage in Biskra, Algeria.

AZEDDINE BELAKEHAL, B.Arch., M.Sc., Ph.D., is a professor at Université de Biskra, specialising in Environmental Engineering and Human Design for historical and contemporary buildings.

Conceptualization: A.B. and A.I.D.; methodology: A.I.D.; validation: A.B.; formal analysis: A.I.D.; investigation: A.I.D.; resources: A.I.D.; data curation: A.I.D.; writing – original draft preparation: A.I.D.; writing – review and editing: A.B.; visualization: A.B.; supervision: A.B.

ACKNOWLEDGMENTS

The authors are very grateful to the Laboratoire de Conception et de Modélisation des Formes et des Ambiances (LACOMOFA), Department of Architecture (Université de Biskra, Algeria). We cannot express enough gratitude to Mrs. Rachida Aboudil Dali and Mr. Aomar Dali for their very valuable and useful feedback, assistance, and support since the beginning of the research.

SOURCES OF ILLUSTRATIONS AND TABLES

- FIGS. 1, 3-13 Authors, 2023
 FIG. 2 Google Earth, 2023
 TABLES I-III Authors, 2023

