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A Stylistic Analysis of the Saharan French colonial architecture in southern Algeria

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Abstract. This work undertakes a study of the colonial architecture produced in southern Algeria during the 19th and 20th centuries. The comparison of the colonial architecture as it is manifested in public buildings in the north and south of the country will make it possible to grasp the specific characteristics of the architectural language developed in Saharan cities during the colonial period from 1832 to 1962. More precisely, the research endeavours to reconstruct, in a chronological manner, the conditions of production, the modalities of evolution of this architecture and the diversity of its formal attributes. To this end, a historical-analytical approach has been applied to a sample of buildings representative of the French presence in Algeria. In particular, the analysis focused on their architectural features with the intention of characterising the French imperialism formal and stylistic expressions which are rooted in eighteenth-century orientalism. The results show that the emphasis on 'indigenous' culture promoted by Governor Jonnart in the early 20th century, which was crowned by the adoption of the architectural orientalism as an official style often emanated from a concerted policy to symbolise France's presence, power, and domination in the colonised territory. Additionally, the study highlighted the features related to the stylistic expression of the public facades through the identification of the architectural and decorative elements used in their design. Finally, it appeared that official architecture in the north was generally expressed through a single style that was successively neo-classical, art deco and neo-Moorish. In the south, however, colonial architecture was more nuanced and clearly influenced by the local Saharan context and the vernacular built environment, although the concept of vernacular architecture has been implemented just as mere rhetoric. Therefore, the colonial architecture generated in the southern territories cannot be considered as strictly imported or exogenous, as was the case for the north, but rather as the result of crossbreeding between vernacular, occidental and sub-Saharan African architectures.

Keywords. Colonial architecture, public architecture, Saharan vernacular, stylistic characterization, Algeria.

1. Introduction

After more than a century of French colonization, Algeria recovered its independence while inheriting an impressive architectural legacy. This rich and diversified colonial heritage

dating from the 19th and 20th centuries was mainly located in the northern urban cities of the country. It has been especially expressed in public buildings where architecture was a tool used by the colonial authorities to show their dominance against the locals. In general, the colonial institutional buildings were designed with an “orientalist” approach in a spirit of compromise and rapprochement between the two Western and Arab-Islamic cultures [1].

Furthermore, most studies that have investigated the stylistic identification of this architecture have underlined its neo-Moorish attributes [2],[3]. They have identified the colonial architecture by a set of formal characteristics of the neo-Moorish style which derives from the local North African architecture. As the neo-Moorish style has been elevated to an official style; it was displayed in prestigious and emblematic public buildings such as post offices, hotels, town halls, and train stations. Accordingly, the architecture of these buildings was expressed in a particular stylistic register-based, on the re-employment of architectural elements used in local architecture that were combined with Western exogenous models both historical and modern.

In this point, it is worth to indicate that the French presence on Algerian territory was not limited to the northern cities. Indeed, it annexed the whole southern regions including the Sahara. However, if several studies have been devoted to the examination of the colonial architecture in Algeria, the majority of them have focused on colonial buildings in the north of the country. In return, there is a lack of knowledge relating to the colonial achievements in the southern regions that have not really aroused a scientific interest comparable to those of the large coastal cities.

As such, the question of the stylistic identification of the Saharan colonial architecture remains open. Has the neo-Moorish style been adopted on the whole national territory in an exclusive way? Does the colonial architecture produced in the south of the country also refer to this style? Or was it characterized by its own style? If so, what were the sources of inspiration and the formal references used by the French colonial authorities to develop an architectural style proper to the Saharan regions of Algeria? Given the extent of the Saharan territory, is it possible to find a unique dominant style, or do several styles reflecting multiple influences coexist?

This research attempts to clarify the subject through a comparative study of the colonial architecture as it has been expressed in public buildings in the north and south of the country. This comparison makes it possible to grasp the specific characteristics of the architectural style developed in the Saharan cities. Accordingly, the research endeavours to reconstruct, in a chronological manner, the conditions of the elaboration, the modalities of the development of this style and the diversity of its formal attributes. To do this, a historical-analytical view will be carried on some representative buildings of the French presence in southern Algeria during the colonial period from 1832 to 1962. It is particularly interested in their architectural aspect and tends to characterize their formal expressions.

More precisely, it deals with the public colonial architecture of Southern Algeria, with particular attention to three Saharan cities namely: Biskra, Oued-Souf and Ouargla. In order to bring out the stylistic aspects of the built-up forms, the analysis will refer to the façades of selected examples. By keeping in mind the issue of clarifying which architectural models have been used by the French colonizer, the main objective underlying this study is to identify the formal characteristics that can be read in the facades of colonial public buildings realized in the south of the country, and then to compare them to the dominant styles adopted in the north as well as in the vernacular architecture of southern Algeria.

This work will also attempt to trace the formal historical evolution of the institutional

architecture in Algeria during the colonial period. It is interested in the cultural syncretism that took place between the knowledge and local architectural styles used by the natives and the exogenous contributions of oriental and African (sub-Saharan) influences the result was the creation of a new architectural language. This same language was recovered and exploited by the colonial administration to express, in particular, regional identities and value their specificities.

Historiography and research framework

Since the landing of French troops in the bay of Algiers (Sidi Fredj) in 1832, several decades were necessary for the colonisation to take total control of the vast Algerian territory. In the first decades of colonization, a restricted occupation was decided, limited to the coastline, only the coasts and their hinterlands fell under the control of France. The interior of the country did not really begin to be conquered until 1837. Around 1865, most of the 200,000 Europeans living in Algeria were citizens. The middle of the 19th century was therefore characterized by an increase in colonial territory towards the south.

During the 1840s, colonization gradually spread southward and by 1900, almost all populated areas were under its domination. A law in 1902 established the Southern Territories (French: Territoires du Sud). The Grand Erg Occidental in the west, and, in the east, the city of Ouargla; were the southern limits of the colonial territory. There remained only the immense Sahara whose occupation ended in 1914, which gave its final shape to the French colony and to the future Algerian state (**Error! Reference source not found.**).

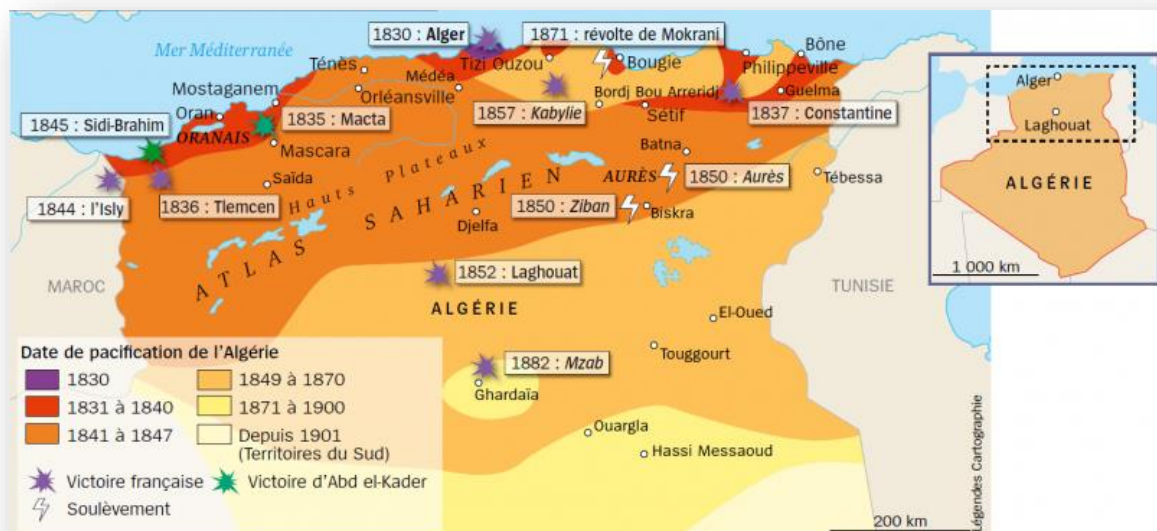


Figure 1. Expansion of the French military domination through the Algerian territory

After being administratively annexed by France in 1848, Algeria was divided into three civil territories namely: the department of Algiers (center), department of Constantine (east) and department of Oran (west). The fourth department, which encompassed southern Algeria, was created by the law of December 24, 1902, and was named “Territoires du Sud” (Southern Territories). The Southern Territories covered the entire Algerian Sahara and part of the northern Algerian highlands. In 1905 the department corresponding to the Southern

Territories was divided into four military subdivisions: Ain-Sefra, Ghardaïa, Touggourt and Oasis (Ouargla as capital). Perpetuating the type of administration that had been experienced in Northern Algeria in the 19th century, they were administered by the military, under the high authority of the Governor General of Algeria (**Error! Reference source not found.**).

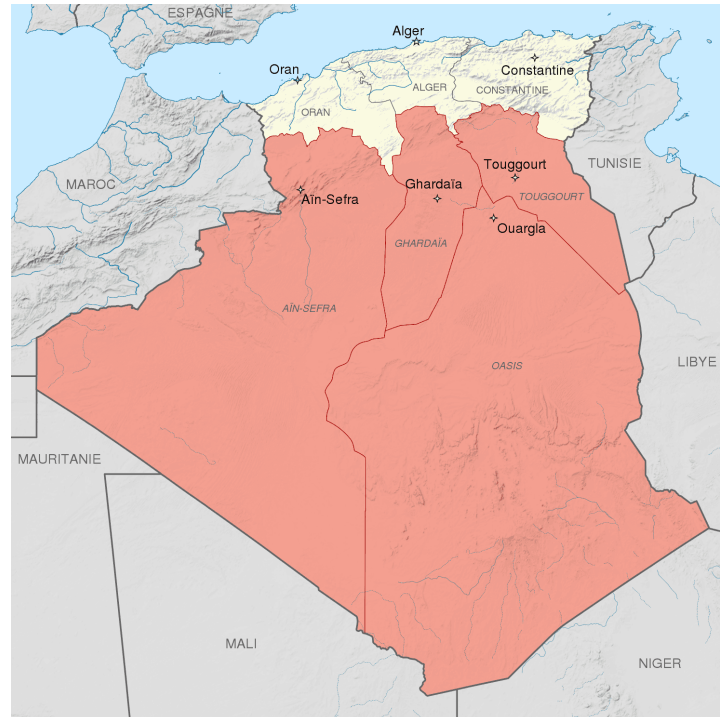


Figure 2. French Algeria 1934-1955 administrative map; in red, the Southern Territories.

2. In quest of an appropriate architectural style for “French Algeria”

The first public buildings constructed in Algeria refer to European styles and eclectic references taught at the *École des Beaux-Arts*: the Baroque style for civil and cultural buildings such as theatres, or the Romanesque-Byzantine vocabulary for religious buildings such as the cathedral of Algiers [2],[3].

It was at the beginning of the 20th century, with the economic development of the country, that the first generations of colonial settlers born in Algeria, while claiming to be French, developed their own identity, certain “Algerianness”. From that time on, the interest in Islamic architecture appeared through its analysis and the assimilation of some of its characteristics in the historicist and eclectic repertoires of 19th century architecture. Thus, to decorate town halls or schools, architects took their references from the Arab-Islamic cultural sphere and copied buildings chosen from countries that represent preferred destinations of travellers to the Orient and the Iberian Peninsula since the 17th century, notably Istanbul, Persia, Egypt and Andalusian Spain [2].

Gradually, popularity was developed for neo-Moorish architecture. Charles Célestin Jonnart (Governor General of Algeria 1900-1911) was fascinated by Orientalism and a great supporter of this style. He encouraged the movement and gave directives to the architects in charge of public buildings to promote its use. The main Algerian cities saw the flourishing of

buildings expressing this composite style, i.e. equipment, institutional buildings and numerous villas (**Error! Reference source not found.**). In Algiers (capital of Algeria), the Great Post Office and the hotel of Prefecture (presently headquarters of Algiers) built in 1906 and 1904 respectively are two buildings that exemplified the ideological aspects of the French colonial project as expressed in the neo-Moorish or “arabisation” architectural language [3]. According to Moshé-Bigon, this style “was an invented colonial tradition. It suggested a decorative synthesis between two aesthetic traditions: that of the indigenous, now colonized, societies and that of metropolitan modernism, which already included historicist tendencies” [4].



Figure 3. Great Post Office (left), headquarter of Algiers prefecture (right), two public buildings expressing the colonial neo-Moorish style.

Nevertheless, it is worth noticing that the so called “orientalist” buildings appear as relatively free interpretations of the authentic monuments that served as models [5],[6]. In general, they use an architectural and decorative vocabulary rather suggestive of the referential buildings. Finally, their expression results more from the accumulation of references drawn from different sources (architectural, and also pictorial), treated with little fidelity: crescents, horseshoe arches, merlons, slender columns with strange capitals, bright colours. The mere juxtaposition of these different elements was sufficient to give a building its orientalist aspect [1].

In the southern regions, however, this style did not have the same attractiveness. In fact, the process of the settling of the Sahara was quite different. Colonial architecture in the South expresses the efforts to integrate local vernacular architecture with modern building design to support the implementation of new types of functions and programs (institutional buildings, hotels, schools, hospitals, etc.). New cities were created ex-nihilo or annexed to the pre-existing traditional settlements. Likewise, the adoption of local Saharan forms begun in the early 19th century as soon as the region was pacified and the French colonial authority was established.

In the Oases territory, it was Colonel Carbillet who initiated the use of local Saharan architecture. On the threshold of the centenary of colonization, more precisely in 1927, Colonel Carbillet who had just been installed in Ouargla as military commander conceived the project of a modern city beside the ksar (fortified traditional village). He thus introduced a new way of perceiving space which was unknown in the region. He drew wide parallel and perpendicular ways, tracing thus a network in checkerboard, which he lined with gardens. The

design of the city was the transposition of a new urban model which comes to be joined to the old one (ksar), whose typological and morphological differences are clear. Along the alley linking the Bordj Luthaud (military fort) to the ksar, several typically colonial facilities were built: the church, a museum and hotels.

These public buildings had the particularity of expressing a vernacular architectural language inspired by local architecture. Even they were designed to accommodate new functions, which were never found in the past, their architectural expression was expected to reflect the local character of the Saharan context. Thus, the treatment of these two aspects has certainly generated different architectural expressions. Finally, the work of the Colonel Carbillet in Ouargla was recognized as successful in the sense that it had embodied the local expressions within modern construction. Moreover the buildings become icons that represent Soudanese Saharan architecture, and then the “Colonel Carbillet’s style” spread to other cities.

3. Materials and method

To explore in depth the colonial architecture used by the French authorities to design public buildings in the Southern areas, the most suitable method would be to check all the Algerian territory which is very difficult to achieve in terms of time and means. In this regard, the investigation of local Saharan characters will be conducted based on selected public buildings representative of the French public architecture both in North and South of Algeria during the colonial period from 1832 to 1962.

Particular attention will be paid to the identification of the formal expressions applied in instructional constructions which will allow understanding their connection to the local architecture. Precisely, a qualitative method based on historical reviews and architectural analysis will be carried on the facades to establish the various architectural styles or types applied in various French public buildings.

Furthermore, by keeping in mind the issue of clarifying which architectural models have been used by the French colonial authorities, the architectural expression that can be read in the facades of colonial public buildings realized in the south of Algeria will be compared to those determining the formal characteristics of the neo-Moorish style that prevails in the North. This comparison makes it possible to grasp the specific characteristics of the architectural style developed in the Saharan cities.

3.1. The study area

Since 1905, the Saharan province of French Algeria was subdivided into 4 departments. Accordingly, the Southern Territories had four military subdivisions: Aïn-Sefra, Ghardaïa, Touggourt and Oasis. Each of these regions is constituted by a set of administrative districts or prefectures. At the head of each territory was placed a military commander.

Thus, the territory of Aïn-Sefra includes the circle of Mécheria, the annex of Aïn-Sefra, that of Beni-Ounif, the circle of Colomb (Colomb-Béchar, presently: Béchar), the annex of Beni-Abbès and the circle of Géryville (presently: El Bayadh). Its chief town is located in Aïn-Sefra. For its part, the Oases territory whose capital is Adrar, includes the annexes of Touat, Timimoun and In-Salah. As for the territory of Ghardaïa, whose provisional capital is Djelfa, it includes the circles of Ghardaïa and Laghouat and the annexes of Djelfa and Ouargla. Finally, the territory of Touggourt, whose provisional capital is Biskra, includes the circle of Touggourt as well as the annexes of Biskra and El Oued (**Error! Reference source not found.**).

In order to bring out the stylistic aspects of the built-up forms, the analysis will refer to the façades of selected examples considering three Saharan cities namely: Biskra, Oued-Souf and Ouargla.

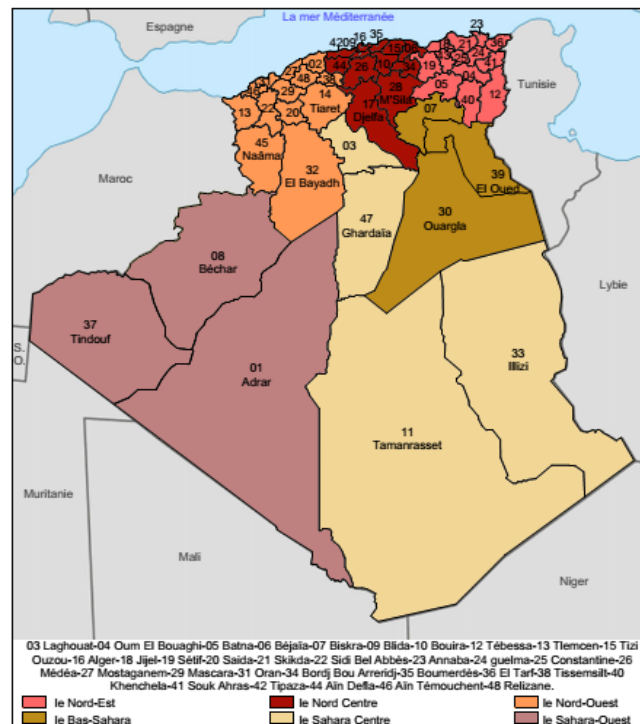


Figure 4. Administrative map of Algeria showing the four military subdivisions of the Southern Territories province and their prefectures.

3.2. *Corpus under study and analysis*

The present work aims to examine the colonial architecture used for public constructions and to distinguish the local formal specificities applied to this type of building. In this regard, the study enlisted three public buildings located respectively in the cities of Biskra, Oued-Souf and Ouargla. These prominent case studies include the NBA Bank (Biskra), the Transatlantic Hotel (Oued-Souf) and the Saharan Museum (Ouargla).

Furthermore, to provide fundamental understanding of the colonial architecture as it has been expressed in public buildings in the northern cities and in order to carry out the comparative study with those constructed in the south, five representative examples of the neo-Moorish style were also examined. The public buildings selected were: 1) the Medersa (religious Islamic school) of Constantine, 2) the great Post Office of Algiers, 3) a school in Kolea, 4) the rail train station of Oran and 5) a Medersa of Tlemcen (**Error! Reference source not found.**) (**Error! Reference source not found.**).

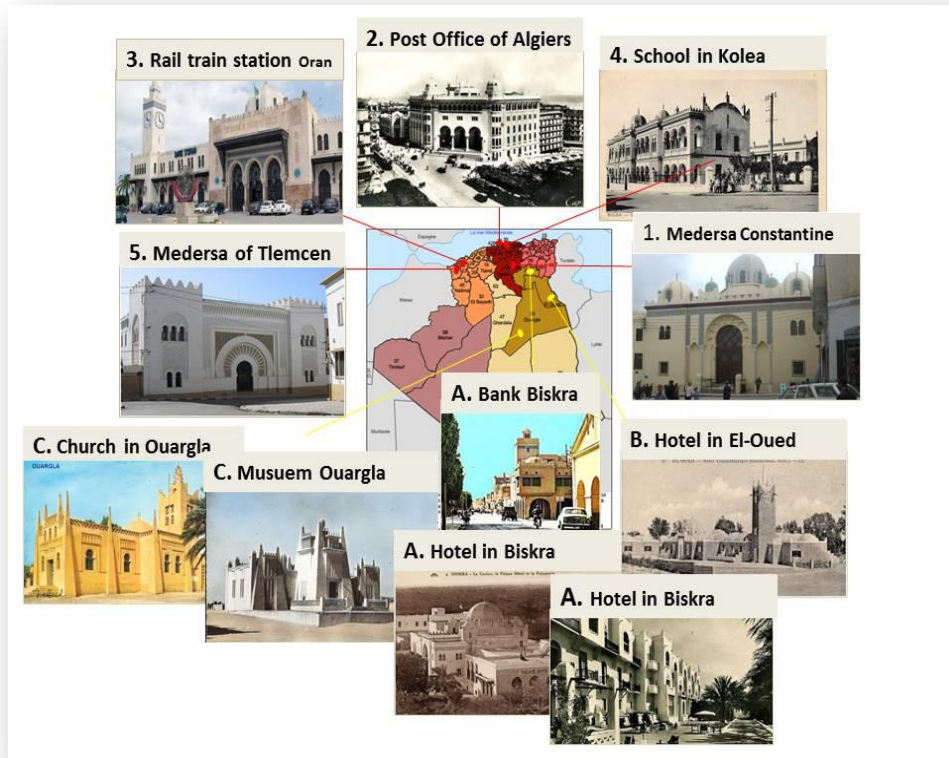



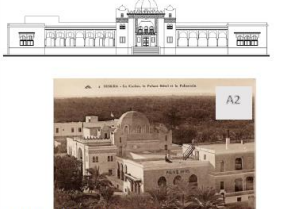
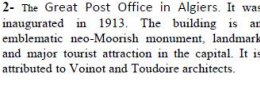


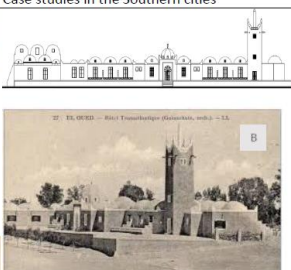




Figure 5. Map of Algeria showing location of the public buildings selected as case studies.

Table 1. Description of the colonial public buildings selected as case studies

Public buildings with main formal features of their façades	
Case studies in Northern cities	Case studies in the Southern cities
 <p>1- Medersa of Constantine (the capital of Constantine Province in north-eastern Algeria). It was built between 1906 and 1909 by the architect P. Bonnells on the drawing of Albert Ballu.</p>	 <p>A1- The BNA Bank in Biskra</p>
 <p>2- The Great Post Office in Algiers. It was inaugurated in 1913. The building is an emblematic neo-Moorish monument, landmark and major tourist attraction in the capital. It is attributed to Voynet and Toudoire architects.</p>	 <p>A2- Place Hotel Biskra The architect of the Dar Darf Hotel (which will later become the Palace Hotel), built in 1892-1898 and adjoining the casino is none other than the famous Albert Ballu. The whole vocabulary, which is going to become typical, is already spotted: galleries of horseshoe arches, horseshoe arched doorways, panelled domes, belvedere-minarets, stepped merlons, corner acroteria, etc.</p>
 <p>5- Medersa de Tlemcen designed by the architect Henri Petit and inaugurated in 1905. It was the second building designed by the same architect in the neo-Moorish style after the Medersa of Algiers.</p>	 <p>A3 - Transatlantique Hotel Biskra</p>
 <p>3- The railway station of Oran (major coastal city located in the north-west of Algeria). It was inaugurated in 1913 and represents one of the main buildings of the city. The design is attributed to Albert Ballu.</p>	 <p>B- The Transatlantique Hotel of El-Oued. It was designed by Guinauchan who introduced new decorative principles. While the Minaret-belvedere was provided by pinnacles of the Mزاب, the rest of the hotel was characterized by its typical small domes and cupolas which are real signs of location (the Souf)</p>
 <p>4- School in Kolea. Kolea a city in Tipaza Province, northern Algeria, located approximately 17 miles (27 km) southwest of Algiers. The primary school for girls was inaugurated in 1914.</p>	 <p>C- The Saharan Museum of Ouargla. It was built in 1936 inaugurated in 1938, it is attributed to Colonel Carbillet. And it was classified as Algerian national heritage since 2007. Its architecture is atypical, combining Arab, African and European architecture. It is considered a masterpiece of the neo-Sudanese style.</p>

Once the corpus of the study was established, the second step was to examine precisely the architectural elements driven by the French colonial governance to express local characters. In this regard, a detailed description of the architectural language including an inventory of all the components characterizing the facade composition and decorative elements used in its design was performed.

Based on the literature review, a set of architectural element were selected as significant in expressing the particular stylistic register of the colonial architecture. Then, these elements were implemented as criteria for performing the stylistic analysis. The criteria that were retained are listed in Table 2 and endowed with a colour encoding.

Table 2. Architectural and decorative elements expressing the stylistic register of the colonial building facades

Architectural and decorative elements/ Analysis Criteria	Colour encoding	
Monumental gate	1	1: monumental gate
Minaret / turret	2	2: minaret/turret
Dome and Coupola	3	3: dome/coupola
Merlons and ledge	4	4: merlons and ledge
Balustrade	5	5: balustrade
Arches	6	6: arches
Mouchrabieh	7	7: mouchrabieh
Ornamental tiled mosaic	8	8: ornamental tiled mosaic

4. Results and discussion







4.1. Confirmation of the Neo-Moorish style presence regarding the public colonial facades of northern Algeria


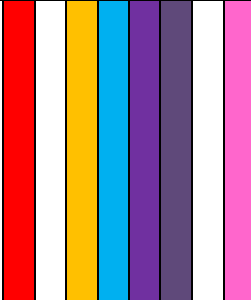
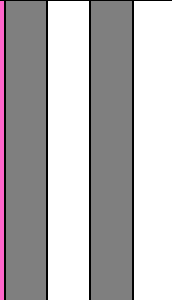


The neo-moorish style, also called “arabiscance”, appeared first in Algiers at the turn of the 20th century. The French Governor General in Algeria Charles Célestin Jonnart adopted and fostered its use, which led to its wide acceptance and rapid diffusion. By definition, the neo-Moorish style which was inspired from Arab and Islamic architectures is basically eclectic. According to François Beguin [2] it is a protective style (“style of Protector”), invented to divert the attention of the natives and to remedy the uneasiness felt in front of the neo-classical style (“style of Victor”), which was implemented by the French administration since the beginning of the colonization. Chalabi & Azil state that it is a picturesque style distinguished by its ornamentation based on many borrowings from Andalusian-north African and Oriental architectures [3]. At the beginning of the 20th century, many public buildings were built by implementing the neo Moorish style. As a result, it spread throughout all the cities of Algeria with the exception of the southern territory where it did not have the same extent.


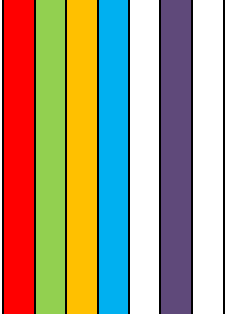
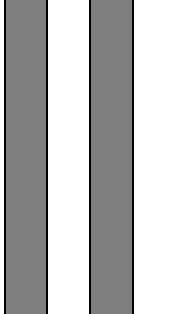


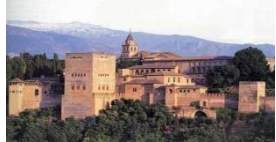

The main formal features that characterise this style are: the cubic minaret, the diamond-shaped network panels, the monumental doors, domes and cupolas, the carved balustrade, stucco ornamentation, Mashrabiya, merlons and ledges, calligraphy, arches, decoration of earthenware (arabesque and mosaic), use of green tiles [3].

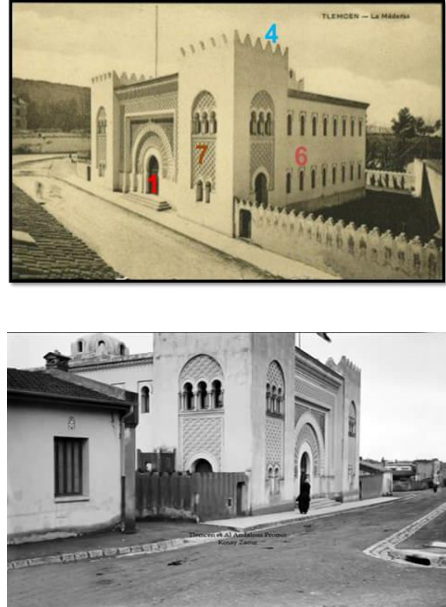
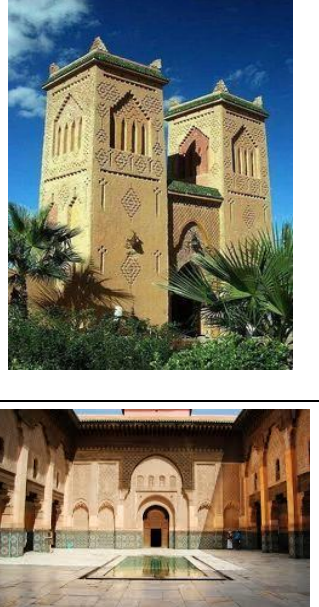
By applying the analysis grid on a sample of colonial buildings facades selected in northern Algerian cities to identify their stylistic affiliations, it was found that most of the formal features of the Neo-Moorish architecture were implemented in the studied facades (**Error! Reference source not found.**).

Table 3. Features identification and stylistic characterization of the colonial building façades in Northern Algeria

Case study	Features								Potential source of inspiration				
	1	2	3	4	5	6	7	8	L/NA	W/F	O/A/I	s-SA	
<p>The Great Post Office in Algiers 1913 Voinot and Toudoire architects</p> 													<p>Potential source of inspiration</p> <ul style="list-style-type: none"> Local/ North African (L/NA) Western/French (W/F) Orientalist/Arab/Islamique (O/A/I) Sub-Saharan/African (s-SA) <p>Exemples:</p> <ul style="list-style-type: none"> -Djamaa El-Djedid Othoman mosque in Algiers -Casbah of Algiers (Medina)  
<p>School in Kolea. 1914. Tipaza Province, southwest of Algiers.</p> 													<p>Potential source of inspiration</p> <ul style="list-style-type: none"> Local/ North African (L/NA) Western/French (W/F) Orientalist/Arab/Islamique (O/A/I) Sub-Saharan/African (s-SA) <p>Exemples:</p> <ul style="list-style-type: none"> -Mosque-Cathedral of Córdoba -Great Mosque of Tlemcen  

<p>Case study</p> <p>Medersa of Constantine Constantine Province in north-eastern Algeria. 1909. Albert Ballu architect.</p>	<p>Features</p> <p>1: monumental gate, 2: minaret/turret, 3: dome/coupola, 4: merlons and ledge 5: balustrade, 6: arches, 7: mouchrabieh, 8: tiled mosaic</p>	<p>Potential source of inspiration</p> <ul style="list-style-type: none"> Local/ North African (L/NA) Western/French (W/F) Orientalist/Arab/Islamique (O/A/I) Sub-Saharan/African (s-SA) 			
		<p>L/NA</p>	<p>W/F</p>	<p>O/A/I</p>	<p>s-SA</p>
					

<p>Case study</p> <p>The railway station of Oran Major coastal city located in the north-west of Algeria. 1913. Albert Ballu.</p>	<p>Features</p> <p>1: monumental gate, 2: minaret/turret, 3: dome/coupola, 4: merlons and ledge 5: balustrade, 6: arches, 7: mouchrabieh, 8: tiled mosaic</p>	<p>Potential source of inspiration</p> <ul style="list-style-type: none"> Local/ North African (L/NA) Western/French (W/F) Orientalist/Arab/Islamique (O/A/I) Sub-Saharan/African (s-SA) 			
		<p>L/NA</p>	<p>W/F</p>	<p>O/A/I</p>	<p>s-SA</p>
					 

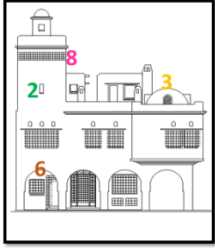

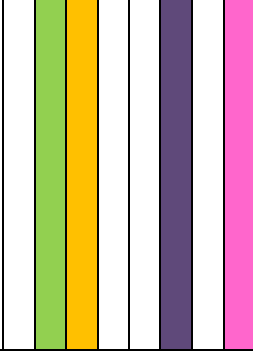
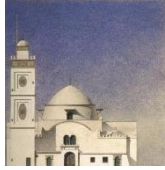

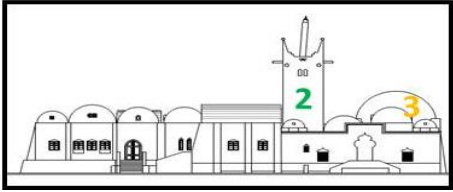
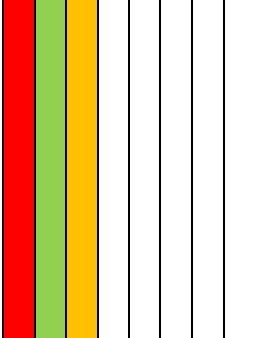


<p>Case study</p> <p>Medersa de Tlemcen Coastal city located in the north-west of Algeria. 1905. Henri Petit architect</p>	<p>Features</p> <p>1: monumental gate, 2: minaret/turret, 3: dome/coupola, 4: merlons and ledge 5: balustrade, 6: arches, 7: mouchrabieh, 8: tiled mosaic</p>	<p>Potential source of inspiration</p> <ul style="list-style-type: none"> ▪ Local/ North African (L/NA) ▪ Western/French (W/F) ▪ Orientalist/Arab/Islamique (O/A/I) ▪ Sub-Saharan/African (s-SA) 				
		L/NA	W/F	O/A/I	s-SA	<p>Exemples:</p> <ul style="list-style-type: none"> -Berber Amazigh Kasbah (Morroco) - Alhambra Palace (Spain/Andalusia) 






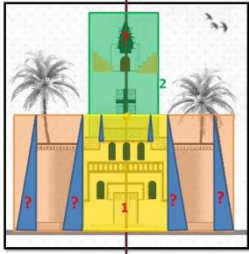

4.2. Stylistic analysis of the public colonial facades of southern Algeria

By keeping in mind the issue of clarifying which architectural models have been used, and eventually, which styles were favoured and implemented by the French authorities in southern Algeria, the analysis grid was implemented on a sample of colonial buildings facades to identify their architectural features and formal characteristics, and then to compare them to the dominant styles adopted in the north (Table 4).

From the analysis, it appears that in the south, the colonial public architecture was more nuanced and clearly influenced by the local Saharan context and the vernacular built environment. Indeed, in contrast to the “orientalist” approach implemented in the north, the Saharan institutional architecture embodied the local expressions, although the concept of vernacular architecture has been implemented just as mere rhetoric. Therefore, the colonial architecture generated in the southern territories cannot be considered as strictly imported or exogenous, as was the case for the north, but rather as the result of crossbreeding between vernacular, occidental and sub-Saharan African architectures.

Table 4. Features identification and stylistic characterization of the colonial building façades in Southern Algeria

Case study	Features 1: monumental gate, 2: minaret/turret, 3: dome/coupola, 4: merlons and ledge 5: balustrade, 6: arches, 7: mouchrabieh, 8: tiled mosaic	Potential source of inspiration																				
		L/NA	W/F	O/A/I	s-SA																	
BNA Bank in Biskra	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>	1	2	3	4	5	6	7	8													Examples: -Djamaa El-Djedid Othoman mosque in Algiers -Mosque in Biskra, Old City
1	2	3	4	5	6	7	8															
 						 																
Transatlantique Hotel of El-Oued	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>	1	2	3	4	5	6	7	8													Examples: -Vernacular dwellings in El-Oued -Mosque in Ghardaia (M'Zab)
1	2	3	4	5	6	7	8															
						 																

Case study	Features								Potential source of inspiration				
	1	2	3	4	5	6	7	8	L/NA	W/F	O/A/I	s-SA	
Saharan Museum of Ouargla 1938													Examples: -the Great Mosque of Djenné -Mosque in Ouargla -Berber Kasbah, Morocco. -Central Market Bamako.
													
													 
													

4.3. What about neo-Sudanese style in Ouargla?

During the French colonial era, Ouargla was the capital of the Oasis territory. In 1927 the Colonel Carbillet who was the military commander of the region, undertook the construction of the new town of Ourgla, for which he personally drew up the plans. Three years later several typically colonial facilities were built: the church, a museum and hotels. These public buildings had the particularity to integrate local vernacular architecture with modern materials and techniques to support the implementation of new types of functions and programs of referring to local Saharan architecture.

Finally the colonial public architecture in Ouargla carries a unique and original architectural language resulting from the syncretism that occurs between several stylistic expressions including the Arab Orientalism, the Berber and, the Saharan vernacular. It was also Carbillet who introduced the neo-Sudanese style in southern Algeria with some stylistic variations notably, the use of the Tanit sign that represent a symbol proper to the Berber culture of North Africa.

The sign of Tanit or sign of Tinnit is an anthropomorphic symbol present on many archaeological remains of the Carthaginian civilization. The symbol has many variants, but the basic form consists of a disc on top of a triangle, separated by a horizontal line, like a

schematic image of a person. The Tanit Symbol is found in the Berber culture of North Africa, in many forms such as jewellery, women's tattoos, carpets, architectural decorations (**Error! Reference source not found.**).

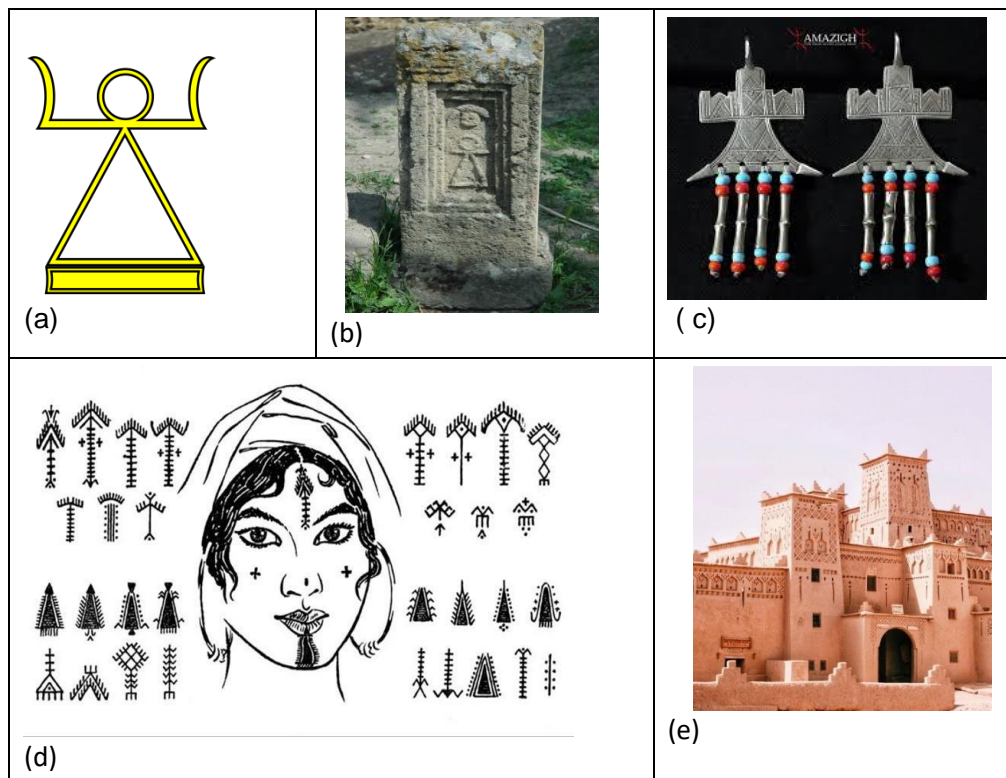


Figure 6. (a) Symbol of the goddess Tanit, (b) Stele of the tophet of Carthage, (c) Old Tuareg Earrings, Niger, (d) Berber facial tattoos, (e) Berber Architecture stucco decoration.

Furthermore, it is worth noticing that Sudanese architecture is a type of architecture found in West Africa and mainly in Mali, in the region that formed French Sudan [7]–[8]. Among its main features, we can highlight the presence of pilasters, reinforcing pillars slightly higher than the wall and ending in a ribbed crossing. In the case of religious buildings, these pilasters may bear ostrich eggs. Mosques also have many palm branches, the terrons.

Neo-Sudanese architecture, for its part, emerged in West Africa, in the region corresponding to French Sudan (modern Mali). This type of architecture incorporates a number of characteristic elements of Sudanese architecture (pilasters, terraced roof, etc.). In addition, there are some Western features typical of colonial buildings (use of new materials such as cement or structural elements such as verandas, corridors, etc.). One of the most majestic examples is the central market of Bamako, the so-called "pink market", which has many similarities with the great mosque of Djenné.

5. Conclusion

This research complement existing research about French colonial architectural legacy in Algeria by exploring in-depth how public and institutional buildings were designed by the colonial authorities according to the Saharan context. In this regard, the study examined main features related to the stylistic expressions of public buildings facades through their

composition and architectural/ decorative elements in both the north and the south of the colonised Algerian territory.

The results show that the emphasis on 'indigenous' culture promoted by Governor Jonnart in the early 20th century, which was crowned by the adoption of the architectural orientalism as an official style often emanated from a concerted policy to symbolise France's presence, power, and domination in the colonised territory. Additionally, the study highlighted the features related to the stylistic expression of the public facades through the identification of the architectural and decorative elements used in their design.

Finally, it appeared that official architecture in the north was generally expressed through a single style that was successively neo-classical, art Deco and neo-Moorish. In the south, however, colonial architecture was more nuanced and clearly influenced by the local Saharan context and the vernacular built environment, although the concept of vernacular architecture has been implemented just as mere rhetoric. Therefore, the colonial architecture generated in the southern territories cannot be considered as strictly imported or exogenous, as was the case for the north, but rather as the result of crossbreeding between vernacular, occidental and sub-Saharan African architectures.

Furthermore, the research proposes a conceptual model for analysing and interpreting colonial architectural heritage's vocabulary. It also provides an insight on how colonial architecture embodied local expressions and vernacular concepts in modern buildings that accommodate public functions. Saharan colonial architecture as displayed in public buildings was expressed in a particular stylistic register based on the re-employment of architectural elements used in vernacular local dwellings and sub-Saharan iconic buildings that were combined with Western exogenous models both historical and modern. Moreover, in southern Algeria the colonial architecture has succeeded in creating public buildings that expressed local Saharan characters. As such, it can be a source of inspiration for designers and architectural practitioners who intend to integrate local elements with modern technology.

References

- [1] B. L. MCLAREN: The Italian Colonial Appropriation of Indigenous North African Architecture in the 1930's. *Brill Publisher, Muqarnas*, **19**, 164-192 (2002).
- [2] F. BEGUIN: *Arabisances*. Dunod Editions. Paris, France, 1983.
- [3] A. CHALABI, Y. LAZRI: Image and Signification of the Neo-Moorish Architecture in Algeria Case Study: The Big Post Office in Algiers. *Civil Engineering and Architecture*, **9**(4): 1246-1256, (2021).
- [4] L. MOSHÉ-BIGON: Regional and Colonial Architectures in French West Africa: Formalistic Dialogues. *Présence Africaine*, ISSN 0032-7638, **1** (171), 59-68 (2005).
- [5] L. DECLÉTY: L'Orientalisme, entre connaissance et réinterprétation de l'architecture islamique. In: *Repenser les limites : l'architecture à travers l'espace, le temps et les disciplines*. ISBN: 9782917902646. Publications de l'Institut national d'histoire de l'art. Paris, France, 2005.
- [6] A.O. IBRAHIM: The Afro-Arab unique hybrid architecture in search for a socio-cultural unification symbolism in the Sudan. *Technium Social Sciences Journal*, **28**, 705-733 (2022).
- [7] P. SALURA, S. CLARISSA, R. CHRISTOPHORI LAKE: The Application of Sundanese Vernacular Concept to The Design of Modern Building - Case Study: Aula Barat (West Hall) of Bandung Institute of Technology, West Java, Indonesia. *Journal of Design and Built Environment*, **20**(1), 1-12 (2020)

[8] P. A. MORTON: *Hybrid Modernities: Architecture and Representation at the 1931 Colonial Exposition*. *MIT Press*. Cambridge, 2000.