# THE HYBRID ARCHITECTURE OF THE FIRST EUROPEAN HOUSES AND THE OLD CASBAH OF ALGIERS

After 1830, the French presence in Algiers brought significant changes to the architectural landscape of the city. The dominant feature of this transformation was the construction of European houses. The first models were constructed mainly within the Ottoman city, especially in its lower part. This paper attempts to explain certain aspects of this type of housing. The debate surrounding the circulation of these new architectural models and their relationships to the Ottoman substrate will be examined. The paper will explain the typology of these new European houses that retained the originality of Ottoman architecture in a special way.

**Keywords:** Ottman houses, European houses, patio, hybrid architecture

#### Ю. Ради

# ГИБРИДНАЯ АРХИТЕКТУРА ПЕРВЫХ ЕВРОПЕЙСКИХ ДОМОВ И СТАРОГО КАСБАХА В АЛЖИРЕ

Французское присутствие в Алжире с 1830 г. внесло значительные изменения в архитектурный ландшафт города. Доминирующей чертой этого преобразования было строительство домов европейского типа. Первые образцы были построены в основном в пределах Османского города, особенно в его нижней части. В статье делается попытка объяснить некоторые особенности этого типа жилья. Рассматриваются мнения по поводу распространения этих новых архитектурных построек и их связи с османской основой. В статье будет объяснена типология этих новых европейских домов, которые особым образом сохранили оригинальность османской архитектуры.

Ключевые слова: османские дома, европейские дома, патио, гибридная архитектура

#### Introduction

The European houses and Ottoman houses are categorically different; in this paper, we shall see a new typology of architecture which we can call Hybrid architecture, that is a result of mixing the two architectural styles. France always considered Algeria to be its own integral part, so keeping the originality of the Algerian Ottoman legacy in its new buildings was a necessity. On the other hand, French architects and urbanists probably did not want to make a gap between the two styles by creating just a typical European house near the Casbah, so they tried to devise an intermediate style of architecture which could contain the elements of the two styles in the same time and help to create the urban cohesion between the Ottoman style and the European one.

### The methodology of work

The first step is to study the characteristics and typology of the Ottoman architecture in the old medina Casbah, the second step is to analyze the typology of the European houses in the casbah which became a result of mixing the two styles of architecture. The reasons for their creation are also analyzed in the article. In the conclusion, a comparison table of this hybrid architecture will be provided as well.

### The beginning

The history of this new architecture style starts with the occupation of Algiers by the French in 1830. The lower part of the casbah had seen a wave of European construction with the arriving of different settlers. These newcomers were of various origins and nationalities and went to constitute the new population of Algiers. Among them were predominantly the French, Spanish and Italian. Hence they chose to create these Europian like houses in the city because it was more comfortable for them. The second reason was that France wanted Algeria to look like a part of France, that is why the buildings looked European from the outside but Ottoman from the inside. This hybrid architecture was created between 1830 and 1865 in the lower part of the casbah, which corresponds to the first phase of creating the European Algiers.

Recent studies on urban planning of 19th and 20th-century architecture in the former colonial territories have highlighted the diversity of cultural exchanges, that was exactlywhat happened in the lower part ofcasbah, Algiers. We can call it "The phenomenon of domestication and hybridization". The first European houses in Algiers werea result of cultural mixing. How? The builders had to respect the morphology of the site first and the integration into the urban fabricinherited from the Ottoman period. They also had to respond to the lifestyles of the different social categories constituting the new and the old population of the city. These parameters seem to have conditioned the chosenmodels to import and to adapt forthe Algerian context.

## The emergence of new architecture in Algiers

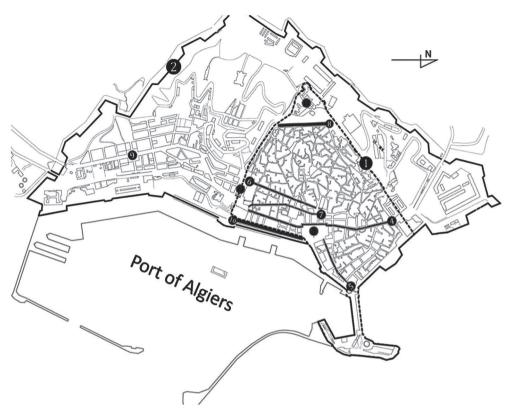
A notable change in the architectural landscape of the city since the French occupation was the new architecture created between 1836 and 1855. Many examples illustrate the dominance of the European style here. For example, the arcades which recall those of the Parisian street of Rivoli are worth mentioning. European architecture was introduced gradually (Barbier 1855: 70-71). It manifested itself, in the first place, in the transformations of the Moorish houses: in addition to the rearrangement of their interiors they were "dressed externally European" (Pignel 1836: 104–107), the exterior facades were exactly similar to those of the transparent facades which were widespread in Europe, especially in France, in the 1840s-60s. These facades gave a European look to the lower part of Casbah. New thoroughfares were added, such as the streets of the Lyre, squares were also created (il. 1).

This is easily explained by the fact that the urban reshuffles were primarily needed to meet military traffic and security requirements. Until 1871, the army through multiple commissions had had full control over matters relating to town planning. They favored relatively narrow streets (6 and 8 meters in width), but wide enough to allow the passage of two cars (il. 1).

## I. The architecture of the Old Medina Casbah

The Kasbah from the Ottoman era is characterized by a high density of development as can be seen from this axonometry (il. 2). Made up of irregular islets in topography with a steep drop, the Kasbah of Algiers, like most of the Medina, gives the impression of a labyrinth where all the streets are identical (*Gerber* 1993: 80–85).

The rooms are grouped around a protected interior courtyard. The dwellings are organized on several floors and terminate with a habitable terrace. The interior organization generally consists of four main bedrooms upstairs opening toward the courtyard. Access to these rooms

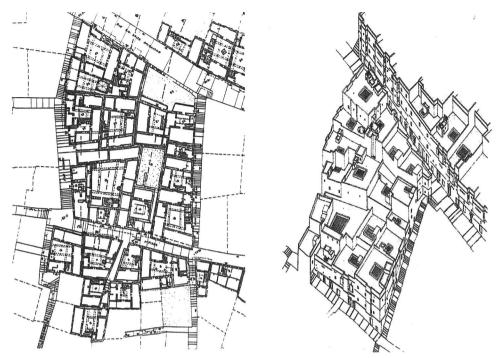


*Il. 1. Diagram illustrating the urban configuration of Algiers in the 1860s and the main transformations of the old Ottoman city. According to the general city plan of Algiers, 1865, Jatissier Editeur. The municipality of Algiers, Department of maps and plans. Drawing Source (Hadjilah 2016)* 

is arranged through the courtyard for the ground floor or via the gallery for the upper floors. The courtyard is accessible from the outside through a series of rooms such as the Driba (passage-vestibule) and the Sqiffa (clearance in chicane).

The courtyard becomes the center of the house, and the facades are oriented to the inside of the house. The almost blind facades on the streets are one or two in number and are characterized by an overhang, thus creating an interplay of volumes and shadows. These projections are testimony to the articulation of the interior walls, of which the niche is the main element of the room. These constructions

largely have one to three-party walls. This contiguous order allows two dwellings of the same family to modify them into a single house with the enlargement of the family. This type of construction has been transmitted through the inhabitants to form a unique look. The basic materials for these houses are adobe masonry or bricks. The thickness of the walls varies between 27 and 30 cm which corresponds to the width of the brick. These bricks making up the walls rest on a mortar of red clay sometimes mixed with lime of a thickness of 3 to 4 cm. The coating is formed mainly of two layers of mortar composed of earth and lime with the ad-

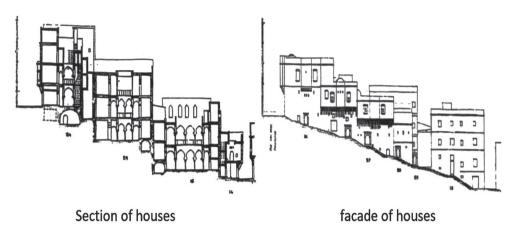


*Il. 2. 2D and 3D drawing of part of the casbah of Algiers which shows the architectural typology of the Ottoman houses. Access, structure and interior roads (Exposer)* 

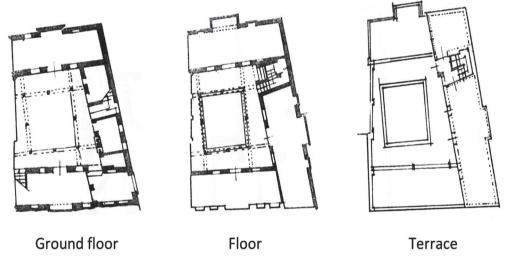
dition of sand. The finish of the walls is produced by a whitewashing of lime. The cover of the porticos, galleries, and rooms are constructed using a wooden floor with a simple warping of joists. The floors are of two types: the first is composed of the bark of cedar Thuja sometimes supporting a layer of reeds, the second is the squared joists. The openings, the doors, and the windows are the essential component of the architecture of the Casbah. Each according to their function obeys a different constructive type. The interior doors are divided into two leaves with external openings lined with minor leaves. The doors juxtaposed against the wall are independent of the masonry. The vertical uprights are inserted into it using a modulus from the top and the bottom fits into the thickness of the pavement (il. 3; il. 4).

## The patio

The patio is the center of the house, it is a living space for varied use. It is usually surrounded by four apartments for four families in general (il. 5). The origins of patio houses do not trace to the Kasbah, they have already been noted in Mesopotamia, about six thousand years ago. We can also find them in Pharaonic Egypt, in China, or in the Roman Empire under two different openings: Artium and peristyle. The Arab world is also distinguished by its patio houses, however, they remain very different from one region to another and from one latitude to another, moreover depending on where you are, the patio is defined differently, Wast ed-dar, Ard Ed-Diar, Hoch, Finna. In the Kasbah of Algiers, whether it is a palace or an ordinary dwelling, each house has a Patio, the difference is marked



*II. 3. Section and facades showing the juxtaposition of the Ottoman houses in the casbah of Algiers. Drawing Source (Exposer)* 



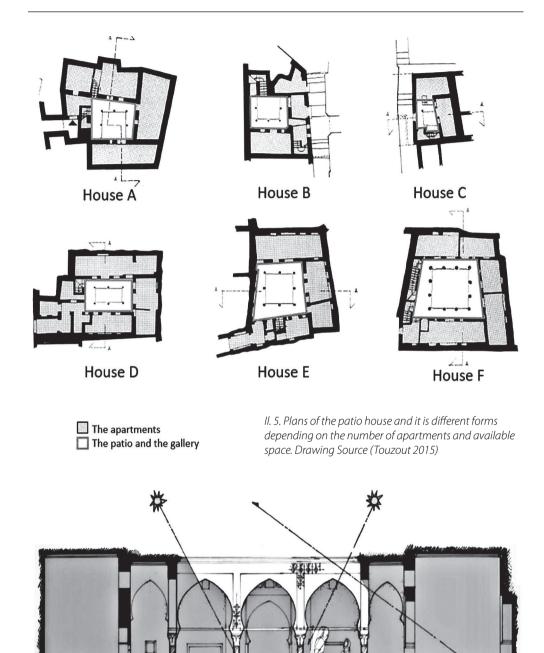
II. 4. Plans for a typical patio house. Drawing Source (Exposer)

by the number of arcs on each side, from the patio with one or three arcs being the most used (*Touzout* 2015: 112–114).

The patio allows a transverse perspective from one end of the house to another, the viewis immersed into an interplay of shadow and light of Kbou-piéce-Galerie-patio-Galerie-piece-Kbou.

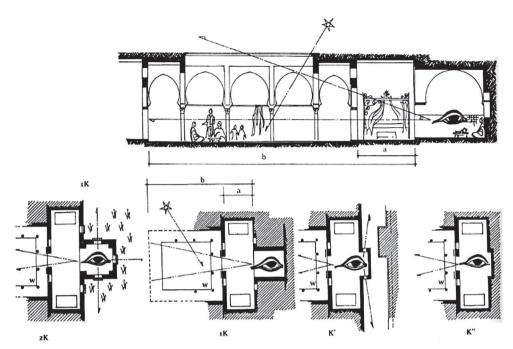
The climatic condition of Algiers encourages outdoor life. Therefore, the ma-

jority of activities are done outdoors. In hot periods the Patio with its bowl shape creates a microclimate, collects the freshness of the night, which in turn pushes the heat upwards. It is a place mainly reserved for women to cook, make crockery, etc, and also for children who can play on the ground. There are often a fountain in the center and tubs of jasmine on the side filling the surrounding space with jasmine



Section on A house with patio

*Il.* 6. A cross section showing the functionality and role of the patio in natural lighting and ventilation of the interior space. Drawing Source (Touzout 2015)



*Il. 7. Drawings showing the visual function of the Kbou. Drawing Source (Touzout 2015)* 

smell. From the Patio, one can access the rooms ('Ghoref' in the Arabic language) from a Gallery, it allows the convenient distribution of apartments on the floors and acts as an intermediate space between outside and inside. It is generally covered which allows you to protect yourself from the sun while enjoying the pleasure of the outdoor life (il 6). This gallery develops on four sides in arcades, the shapes of arcs used in the galleries are diverse — round, three-point, broken, etc. This configuration allows great flexibility of adaptation in the case where the grounds are not of perfect geometry and where the spacing between two columns is variable.

Kbou — Kouba or cupola — the function of this space recalls that of Lwan Orient, it is a raised room above the courtyard which serves as a place of reception, intimate conversation but also of rest and reflection (il. 7; il 8). From this Kbou, one

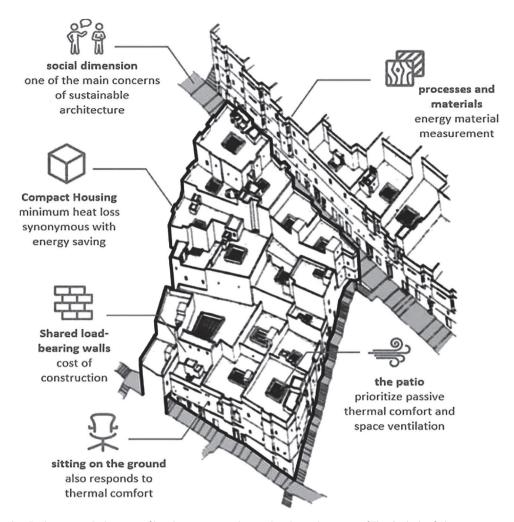
can observeall the activities on the street from the low window, closed by a grid, providing also a continuous contact with the patio (*Flood, Necipoğlu* 2017: 201–210).

## II. Types of the European houses in the Casbah

The Algiers "three-window": importing European lifestyle

This kind of housing wascertainly popular in Europe during the first half of the Nineteenth-century, especially in France, specifically in Marseilles. The similarities between the first identified model and the "three windows" can be foundat different levels (il. 9; il. 10)

In terms of the configuration of their plots: they were rectangular, deeper than wide, with a limited surface. They allowed very small room for internal organization.

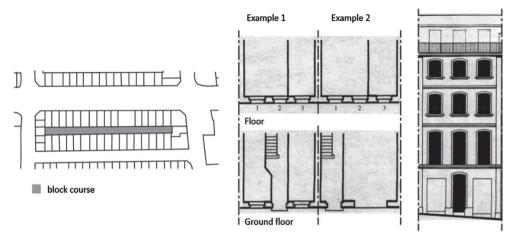


*Il.* 8. Explanatory 3D diagram of bioclimatic principles used in the architecture of The Casbah of Algiers. Drawing source (Touzout 2015)

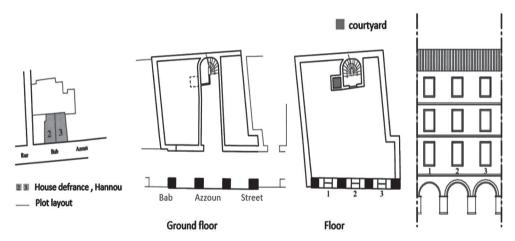
These houses have only one facade facing the street.

— In terms of distribution of spaces these houses include staircase of modest sizeallowing to serve one apartment per floor. The shape of the staircase is often circular. It is located at the end of a corridor, having a central or lateral position. The reduction of stairwells to their simplest expression and the absence of intermediate spaces

between the private areaand the street, like the hearts of a block, indicates that social life was taking place outside of these dwellings. This fact is characteristic of European cities, especially those around the Mediterranean, where spaces of sociability wereseparated from domestic spaces. The climatic conditions also imposed an adaptation of the "three windows" to the local context, thus endowing it with two particularities:



Il. 9. The "three Marseille window" European House, 1838 (Hadjilah 2016)



Il. 10. The "three Algerian windows" European House, 1855 According to the pellet plan 1832 (Guion 2000: 92)

- the systematic presence of a small courtyard allowedthe organizing of additional openings leading to the outside. This space, which is found in traditional Casbah constructions without a patio, was to improve air circulation and regulate the temperature inside the apartments. In Marseille, the "three-window" is clear, since it has a rear facade overlooking a courtyard (Daniel 1987: 45–50);
- the presence of an arcaded gallery on the ground floor when it is at the

edge of streets 8 meters wide. The "three-window" is perfect fitfor small plots because it allows the development of apartments ensuring minimumal conditions of comfort (*Jean, Pinon* 1991: 143–160). Although it is difficult today to restore the interior partitionings of these apartments ofthe time of their construction, it is nevertheless possible to deliverthe following principles: the width of the facade being between 10 and 13 meters, it allowed to create a front row of two to

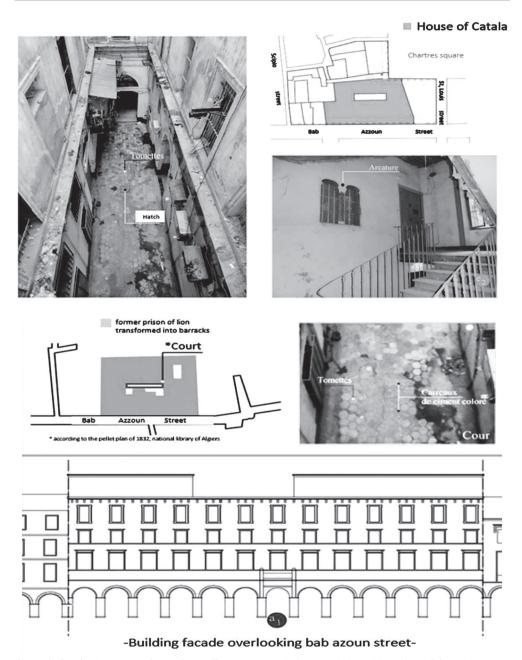
three rooms consisting of a dining room, a living room and a bedroom, either accommodation for a single person or for a small family. Behind it was the kitchen and the water closet which have openings towards a courtyard. When the plots are larger, without gaining in-depth, the prototype of the "three windows" is generally split: the staircase serves two or three apartments per floor, each of which benefits from the row of facades, composed of the living room, dining room and possibly a bedroom (it depends on the width of the plot). It is separated from the kitchen through a corridor that is accessible directly from a room without transpassing another. These apartments intended for low-income households spread over the entire building, so there was no floor reserved for wealthy families.

## The European house with an integrated court, the hybrid model

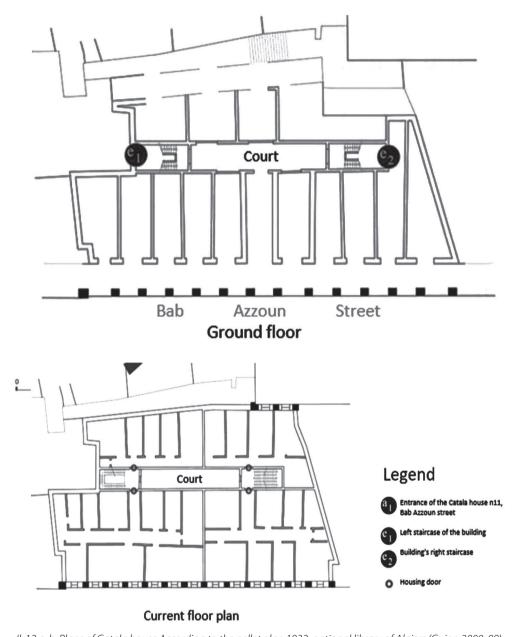
The buildings organized around courtyards surrounded by galleries giving access to housing were spread at the end of the 19th century (Picard 1994: 125-128). However, it should be noted that many of the dwellings built in the 1840s adopted this typology. They occupied a parcel resulting from the widening or the drilling of streets in the traditional urban fabric. They seem to testify to an accommodation of a preexisting distributive mode, that of the Ottoman constructions with patio.lt would thus have favored the maintenance of the patio, because it made it possible to absorb the irregularity of the plots. In the absence of building permit files, the identification of these European houses withintegrated courts is a matter of archeology. It therefore requires the comparison of cartographic documents and written sources with the data collected. The case of Maison Catala illustrates this point well (il 11 a, b).

Established around 1845 on the site of a former Turkish penitentiary known as the lions (*Nabila* 2008: 281–286), it is said to have resumed its characteristic elements. Indeed, it has a longitudinal courtyard parallel to the unique facade of the building facing the street, the proportions and location of which seem to correspond to those of the galley patio. The sources claima partial demolition of the prison of lions in 1838. In addition, the observations made it possible to note the followingdetails:

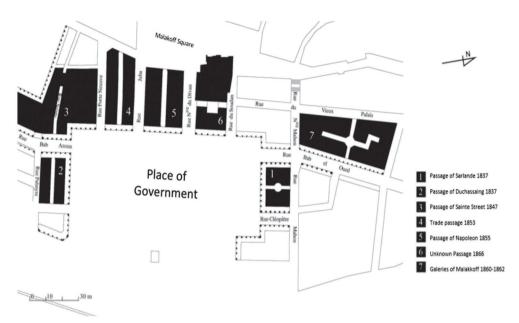
- a covering at the level of the courtyard made up of hexagonal marble tiles whose dimensions correspond to those used to cover the large Turkish patios (*Klein* 1910: 9–11). Its Ottoman origin is more than probable in view of its dilapidated state and its replacement in places withcolored cement tiles;
- a hatch which seems to have given an access to the tank which is positioned in the center of the courtyard of the former prison of lions;
- two twin windows with a decidedly Moorish appearance which contradictthe classic style of the house. It should be noted that these elements are only found in two places: at the level of only one of the two stairwells to which the courtyard gives access. It could therefore be old openings of the galleys of lions that remained in place after the construction of the Catala house. These inherited courtvard houses therefore testify to the hybridization of an existing model of patio constructions. Within these, the patio is the place around which daily life is organized. In European houses, it is reduced to a simple transition space, ensuring the arrangementof apartments. However, keeping it in the new construction allowed better management of space: in the Catala house, the courtyard inherited from the penal colony illuminates and ventilates the apartments at the bottom of the plot il 12a, b).



Il. 11 a, b. Catala House, 1835, located near Chartres square, Bab Azzoun Street, Algiers (Hadjilah 2016)



Il. 12 a, b. Plans of Catala house According to the pellet plan 1832, national library of Algiers (Guion 2000: 99)



*II.* 13. Plan of passage houses around the government square, from 1837 to 1862 According to the pellet plan 1832, national library of Algiers (Guion 2000: 115).

### The Passage houses

Passage houses are understood to indicatehouses or alleys, which are generally covered by canopies and lined with shops. This is an architectural type specifically commontopre-Haussmannian architecture which was widely used in France during the first half of the 19th century (Lemoine 1989: 13-14). The construction of passage houses appears to have been an effective means of organizing, or rather reorganizing, the retail business in the Lower Casbah, Indeed, in this part of the city were the various commercial structureson the eve of the French occupation, such asthe souks and bazaars, which were partially destroyed during the urban works of French military engineering (Shuval 1998: 20-23). Passed into the hands of the European population, the retail trade was not only integrated into the arcaded galleries bordering the main streets, but also in houses with passageways.

Houses with Algerian passages might have often occupiedlots of plots acquired by wealthy investors, like Baron Augustin de Vialar (1799-1868), owner of several houses in the lower Casbah, including a crossing of streets Bab Azoun and Chartres, Another example is Louis Sarlin (1790-1866) who built a set of houses constituting a passage on a part of the grounds of the Place du Gouvernement long occupied by military department (Barber 2005: 70-72). Concentration of this type of housesaround thesquare should be noted. La Tour du Pin house built in 1837 was the first prototype (Albert 2008: 332-333) (il. 13).

The passage houses of Algiers are simple, without any architectural pretensions. They partially or entirely occupy islets of medium size which allow the tracing of passages of rectilinear form withlength not exceeding 50 meters and which often have a rotunda halfway (*Jo*-

hann 1989: 41–44). When the passage is made up of a set of houses, theyare narrow, entirely autonomous and are only brought together by means of the treatment of their interior facades. Their arrengment is similar to that of the "threewindow". When the passage crosses a single house, the latter takes one of the following configurations:

- it can be established on two plots separated by an old lane. A configuration similar to the Ottoman sabat, which are the crossings made by way of the extension to the floor of a building space which is therefore located above an alley;
- the large plots located along the main streets were conducive to the construction of houses crossed by passages punctuated by rotundas (Lespes 2000: 334-337). It is noteworthy that detached houses do not have an interior facade overlooking the passage. Only a minimal portion of the latter is cleared, thus making it possible to light up service spaces (kitchen, water closet, etc.). During the first decades of the French occupation, social and cultural life was inseparable from the life of the passages that these houses constituted. Bookstores and publishing houses abounded there, cafes welcomed bourgeois and intellectual customers, jewelers, milliners shops and luxury tobacco merchants came at thestrollers. More than iust an import of an architectural model. the passage houses proved to be the places through which European social practices were introduced.

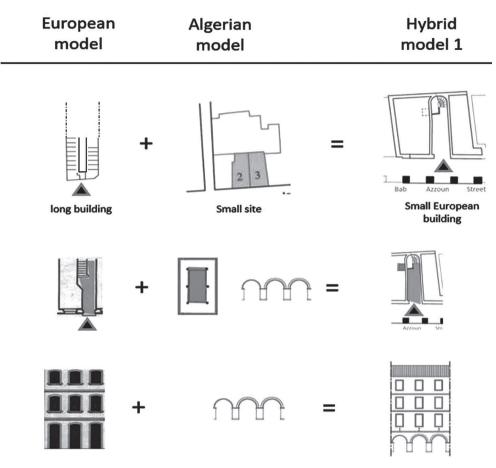
# III. Hybrid architecture analysis table

"The three Algerian windows" (il. 14) is a result of mixing two different styles, European facades which contain 3 windows and the algerian arc and Patio. This hybrid model is caracterized for small areas and generaly it can have one appartement in one floor.

The hybrid model 2 (II. 15) functionally looks similar to Patio's house in the old medina of the casbah, having shops on the first floor and having four apartments on the second floor surrounded by a patio. The difference between this hybrid model and the Ottomanpatio house is in the social relationship inside the building and the use of the patio. The Ottoman house can contain many families livingtogether, but they are all relatives, not strangers. For example, if the son gets married he can get a room or a multi-room for his family in the same house, a patio is a place for meetings and living; from the patio you can get to the workshop which has an entrance from the outside and the inside of the house. The patio is used not just for the meeting but also for many sanitary reasons; fresh air, ventilation, natural sunlight during the day. On the other hand, the hybrid house contains many residences but families in the building are onlyneighbors toeach other. The living space is separated from the shops onthe 1st floor. The patio here is not a meeting place, it is used just because it can occupy the deformed space of the land which facilitated the formationof chambers.It was also used for the ventilation.Because of the rectangular form of the patio, the apartments couldnot get good penetration of sunlight during the day, but it wasnot relevantbecause they already hadwindows from the outside of the building (il. 16).

Even in the urban design of the place of the government, the idea of the Patio house was used. The place of the government is the patio where people meet, buildings are rooms and the corridors are thetransition space between the private space (buildings) and the public space.

The hybrid architecture created by the first Europeans in Algeria is very special,

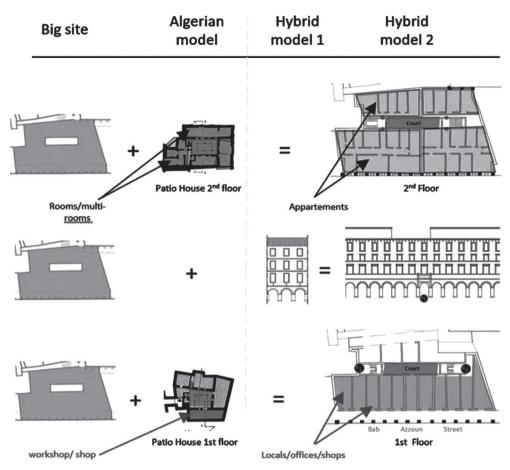


*Il.* 14. Drawings explaining the creation of the hybrid model "The three Algerian windows" by mixing two different styles, Europian and Algerian (Hadjilah 2016)

and it showed us that architecture is a field of inspiration. In Algiers, specifically in the casbah, was born the first European house with a patio inside it. This style emerged as a result of mixing two needs: the need for keeping the European lifestyle for the newcoming Europeans, and the need for integrating it into the Algerian environment. Sincethe first years of the conquest, Casbah of Algiers has been a test field of a new typology. The lower part of Casbah contains a lot of this hybrid architecture which plays a big role in the urban continuity be-

tween the old Casbah and the new city of Algiers. This new architecture is telling a story of a new lifestyle in Algiers city which has becometheresult of two different cultures thatlived together.

Architecture is a field of influence, and the new architecture in Algiers was influenced by the ancient local architecture, such as the casbah and the first European houses. This modern architecture was a result of this knowledge of different typologies. From the first modern buildings in Algiers we can discuss the following:

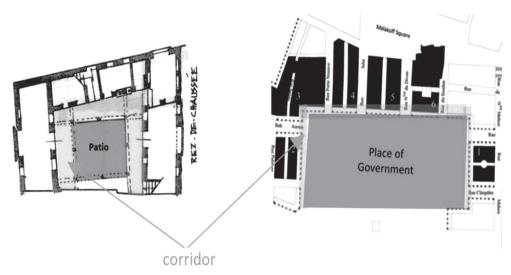


II. 15. Drawings explaining the creation of the model hybrid N 2. Example of the "Catala House" by mixing the Algerian model and the Hybrid model N 1 (Hadjilah 2016)

The Grande Poste d'Alger is a neo-Moorish style building, built in Algiers in 1910 by the French architects Jules Voinot and Marius Toudoire (*Benali* 2008: 264–268). Ithouses the Algerian postal services in the heart of the city of Algiers, in the European part of it. This building is the result of the influence of the neo Mauresque style on the French colony. La Grande Poste was built on the site of an Anglican church built in 1870 on the former Plateau des Glières, we can also see the concept of three European windows which are used

more often in the new European houses in Algiers.

Another example is built in 1957 Climat de France in Algiers. It is a monumental building designed by the architect Fernand Pouillon in the early 1950s (*Leblanc* 2017: 1–4). The mayor of Algiers ordered three similar projects for the city. The goal was to relocate the Muslim population who had crowded into the slums. It was an important project of 3500 housing. Pouillon conceived it as a city within acity (*Marrey* 2010: 115–117). Monumental staircases and the main



*Il.* 16. Drawing explaining the inspiration of corridor from Patio house in the place of government. drawing in the left has been downloaded from (Faghih 1980)

building which is placedaround a long square of  $233 \times 38$  meters, punctuated by white columns that provide the square with some space, border by passageways which house the shops (Regnier 2019: 10-14). The influence of the neo-Mauresque architecture to his monumental building is quiteclear. The patio concept for ventilation and arcades give an Islamic touch from the inside. The workshops onthe first floor turned by arcade gallery is the same concept of casbah houses, the terraces are also used. From the outside, a modern facade used to cover the building and huge colonnade atthe entrance was influenced by the Roman temple. The domes on the building itself were influenced by the dome of Khou.

**Diar el Mahçoul** is another example of a modern Algerian architecture by the same architect. This residential neighborhood is influenced by the Casbah old city itself (*Paul* 2010: 61–63). Before Fernan Pouillon begandesigningthe city of Diar El Mahssoul, he thought of the Turkish fortifications, the streets of the Casbah and its

architectural elements: the Patios of the houses and Arab-Turkish palaces His concept was to embody them in big natural stone (*Voldman* 2009: 705–710). The city was built in 18 months between 1953 and 1955. It totals 1,500 apartments distributed in buildings of different heights. Diar el Mahçoul is divided into two parts separated by the Boulevard Oulmane Khelifa (formerly "Boulevard of the French Expeditionary Force of Italy"):

The northern part, facing the Bay of Algiers, was called "normal comfort" and was intended for the Europeans; the southern part, further back, was called "simple comfort" and was intended for the Arab population (Safir 2008: 83–85). The housing units in the "normal comfort" city had a separate kitchen, an entrance hall, a patio, and a bathroom with a hip bath, toilet, and bidet. While the housing units in the "simple comfort" city were smaller and had only a patio with no view, a kitchenette, Turkish toilets, and a small sink (Verdès-Leroux 2009: 52–55).

### **Conclusion**

The architectural typologyhas playeda big role in the sustainable development of the city because it is reflecting the real lifestyle of the original society. In the modern architecture of The Grande Poste of Algiers we could see the dominance of the Islamic style in the center of European houses which reminds people of their identity, this building became an attractive spot in the city for visitors. The term sustainable development is not concerning just the economy but also the ecology and society. When the European houses and the first hybrid architecture were created in Algiers, the modern architecture startedto spread out in the world, and also did in Algiers city. The French architect Fernand Pouillon was always inspired by modernism and the monumentality of buildings and use of natural materials, his special touch was clear, in Algiers he was responsible for many new modern projects as we saw in Climat de France and Dyar El Saada. He saw the need of using the concepts of Muslims architecture not just for keeping the originality of the lifestyle, but also because he understood the role of Islamic architecture in saving the environment and the sustainable development. Nowadays, there is a project of rehabilitation of the center of Algiers, which contains repairing old European houses, it is called The white Algiers. The purpose of this project is to give a good imageto the city and make it an attractive place for tourism purposes.

#### БИБЛИОГРАФИЧЕСКИЙ СПИСОК

- Albert 2008 Albert D. Etude archéologique d'Alger. Lausanne: EPFL, 2008.
- Barber 2005 Barber Sh. Book of Historical and descriptive itinerary of Algeria. Marseille: Edition Laureat Paris, 2005.
- Barbier 1855 Barbier J. Historical and descriptive itinerary of Algeria. Paris: L. Hachette et Cie, 1855.

- Benali 2008 Benali S. Algiers in five days // Le Monde 2. № 68 (July). 2008. P. 109–111.
- Daniel 1987 Daniel D. Historical architectures in Marseille. Aix-en-Provence: Édisud, 1987.
- Exposer Exposer sur la casbah // SlideShare. [Электронный ресурс]. URL: https:// fr.slideshare.net/rymanrym/exposer-surla-casbah
- Faghih 1980 Faghih N. The Casbah of Algiers: An Urgent Problem of Conservation. In Places of Public Gathering in Islam / ed. L. Safran. Philadelphia: Aga Khan Award for Architecture, 1980. [Электронный ресурс]. URL: https://archnet.org/sites/6089/publications/2678
- Flood, Necipoğlu 2017 Flood F.B., Necipoğlu G. A companion to Islamic art and architecture. Hoboken, NJ: Wiley Blackwell, 2017.
- Gerber 1993 Gerber A. Le Corbusier's Algeria: the voyages of 1931. Lausanne: EPFL, 1993.
- Guion 2000 Guion P. La Casbah d'Alger. Paris, 2000.
- Hadjilah 2016 Hadjilah A. L'architecture des premières maisons européennes d'Alger, 1830–1865. Article 2. Artl@s Bulletin 5. № 1. 2016. [Электронный ресурс]. URL: https://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1080&context=artlas
- Jean , Pinon 1991 Jean D. C, Pinon P. Le Pari d'Haussmann. Paris: Éditions Du Pavillon de l'Arsenal, 1991.
- Johann 1989 Johann F. G. The passage an architectural type of the XIXth century. Brussels: Pierre Mardaga, 1989.
- Klein 1910 Klein H. Feuillets d'El-Djezaïr. Algiers: Imprimerie orientale Fontana frères, 1910
- Leblanc 2017 Leblanc L. Marie Richeux "Climats de France" chez Sabine Wespieser // Livres Hebdo. July 26. 2017. P. 1– 4.
- Lemoine 1989 Lemoine B. Les Passages couverts en France. Paris: Délégation à l'Action artistique de la Ville de Paris, 1989.
- Lespes 2000 Lespes T. Medina d'Alger. In note n° 2 by the author Mohammed Sofiane // EL-WATAN. № 687 (September). 2000. P. 334–337.
- Marrey 2010 Marrey B. Fernand Pouillon, Book of the man to be killed.. Paris: Éditions du Linteau, 2010.

Nabila 2008 — Nabila C. S. The baths of Algiers during the Ottoman period (16th–19th centuries). Paris: University Press Paris-Sorbonne, 2008.

- Paul 2010 Paul J. Labourdette and Dominique Auzias // Le Petit Futé Alger. New editions of the university Magazine. №41 (Avril). 2010. P. 61–63.
- Picard 1994 Picard A. Architecture and town planning in Algeria. From one bank to the other 1830-1962 // Revue du monde Moslman et de la Méditerranée. №73. 1994. P. 125–128.
- Pignel 1836 Pignel A. Driver or guide of the traveler and the settler, from Paris to Algiers and in Algeria. Paris: Debécourt, 1836.
- Regnier 2019 Regnier I. Fernand Pouillon et l'Algérie, une histoire gravée dans la pierre // Le Monde. July 15. 2019. P. 10–14.
- Safir 2008 Safir B. Algiers in five days // Le Monde 2. № 66 (February). 2008. P. 83–85.
- Shuval 1998 Shuval S. T. The city of Algiers towards the end of the 18th century. Population and urban setting. Paris: CNRS Éditions, 1998.
- Touzout 2015 Touzout R. La Casbah Aux Yeux De L'occident. Algiers: Mars, 2015. [Электронный ресурс]. URL: https://ru.calameo.com/books/00109740066d8aa8b587a
- Verdès-Leroux Verdès-Leroux J. L'Algérie et la France. Paris: Robert Laffont, 2009.
- Voldman 2009 Voldman D. Pouillon, Fernand (1912-1986) // L'Algérie et la France / ed. Jeannine Verdès-Leroux. Paris: Robert Laffont. 2009. P. 705–710.

#### REFERENCES

- Albert D. *Etude archéologique d'Alger*. Lausanne: EPFL Publ., 2008.
- Barber Sh. Book of Historical and descriptive itinerary of Algeria. Marseille: Edition Laureat Paris Publ., 2005.
- Barbier J. *Historical and descriptive itinerary of Algeria*. Paris: L. Hachette et Cie Publ., 1855.
- Benali S. Algiers in five days. *Le Monde 2*. № 68 (July). 2008, pp. 109–111.
- Daniel D. *Historical architectures in Marseille*. Aixen-Provence: Édisud Publ., 1987.

Exposer sur la casbah // SlideShare. Электронный ресурс. URL: https://fr.slideshare.net/rymanrym/exposer-sur-la-casbah

- Faghih N. The Casbah of Algiers: An Urgent Problem of Conservation. In Places of Public Gathering in Islam. Ed. L. Safran. Philadelphia: Aga Khan Award for Architecture Publ., 1980. URL: https://archnet.org/sites/6089/ publications/2678
- Flood F.B., Necipoğlu G. *A companion to Islamic art and architecture*. Hoboken, NJ: Wiley Blackwell Publ., 2017.
- Gerber A. Le Corbusier's Algeria: the voyages of 1931. Lausanne: EPFL Publ.. 1993.
- Guion P. La Casbah d'Alger. Paris, 2000.
- Hadjilah A. L'architecture des premières maisons européennes d'Alger, 1830-1865. Article 2. Artl@s Bulletin 5, no. 1, 2016. URL: https://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1080&context=artlas
- Jean D. C, Pinon P. *Le Pari d'Haussmann*. Paris: Du Pavillon de l'Arsenal Publ., 1991.
- Johann F.G. *The passage an architectural type of* the XIX-th century. Brussels: Pierre Mardaga Publ., 1989.
- Klein H. Feuillets d'El-Djezaïr. Algiers: Imprimerie orientale Fontana frères Publ., 1910.
- Leblanc L. Marie Richeux "Climats de France" chez Sabine Wespieser. *Livres Hebdo*, July 26, 2017, pp. 1–4.
- Lemoine B. *Les Passages couverts en France*. Paris: Délégation à l'Action artistique de la Ville de Paris Publ., 1989.
- Lespes T. Medina d'Alger. *EL-WATAN*, no. 687 (September), 2000, pp. 334–337.
- Marrey B. Fernand Pouillon, Book of the man to be killed. Paris: Éditions du Linteau Publ., 2010.
- Nabila C.S. The baths of Algiers during the Ottoman period (16th-19th centuries). Paris: University Press Paris-Sorbonne Publ., 2008.
- Paul J. Labourdette and Dominique Auzias. *Le Petit Futé Alger. New editions of the university Magazine*, no. 41 (Avril), 2010, pp. 61–63.
- Picard A. Architecture and town planning in Algeria. From one bank to the other 1830-1962. Revue du monde Moslman et de la Méditerranée, no. 73, 1994, pp. 125–128.
- Pignel A. Driver or guide of the traveler and the settler, from Paris to Algiers and in Algeria. Paris: Debécourt Publ., 1836.

- Regnier I. Fernand Pouillon et l'Algérie, une histoire gravée dans la pierre. *Le Monde*, July 15, 2019, pp. 10–14.
- Safir B. Algiers in five days. *Le Monde 2*, no. 66 (February), 2008, pp. 83–85.
- Shuval S.T. The city of Algiers towards the end of the 18th century. Population and urban setting. Paris: CNRS Publ., 1998.
- Touzout R. *La Casbah Aux Yeux De L'occident*. Algiers: Mars Publ., 2015. URL:

- https://ru.calameo.com/books/ 00109740066d8aa8b587a
- Verdès-Leroux J. *L'Algérie et la France*. Paris: Robert Laffont Publ., 2009.
- Voldman D. Pouillon, Fernand (1912–1986). L'Algérie et la France. Ed. Jeannine Verdès-Leroux. Paris: Robert Laffont Publ., 2009, pp. 705–710.