

FROM SOCIAL HOUSING TO HERITAGE: ASSESSING THE ARCHITECTURAL QUALITY AND HERITAGE VALUES OF MODERNIST LARGE HOUSING ESTATES IN ORAN (1950–1962), ALGERIA

Farah Kefif^{1*}, Zakaria Bendjima²

¹Research Laboratory of Métropole Architecture Urbanisme Société (LAMAUS)
Faculty of Architecture and Civil Engineering, University of Sciences and Technology
Oran Mohamed Boudiaf, Oran, Algeria

²Architectural Firm TOP-Building Bendjima, Oran, Algeria

*Corresponding author's email: Farah.kefif@univ-usto.dz

Abstract

Introduction. Thus far, no study has systematically developed criteria for assessing the heritage value of social housing as a built legacy, despite their significant role in shaping urban and architectural identity. **The purpose of this study** aims to identify and evaluate the architectural significance of such estates, with the goal of informing strategies for their potential preservation and contributing to broader reflections on heritage production. In this context, a comparative assessment was carried out on four large housing estates in the city of Oran, selected based on key factors including the architect's reputation, the diversity of urban forms, and the mixed designation of housing for both Muslim and European communities, which reflects the complex social and historical fabric of the city. The research adopts a Mixed **Methods** Research (MMR) approach, integrating qualitative and quantitative data to provide a comprehensive assessment. The qualitative component relied on semi-structured interviews, allowing for the identification of new evaluation criteria grounded in expert and local knowledge. The quantitative component involved 200 questionnaires distributed to two groups' inhabitants and professionals whose responses were systematically analyzed using ATLAS.ti software to reveal patterns and perceptions regarding heritage value. **Findings** from this comparative study indicate that heritage values vary across cases depending on the relevance of specific criteria, highlighting the importance of selecting contextually meaningful indicators. These criteria not only influence the evaluation of each estate but also inform heritage conservation strategies tailored to local urban and social contexts. Ultimately, the study provides essential reference points for the recognition, appreciation, and preservation of Algerian domestic architecture from the second half of the twentieth century, offering insights that may guide similar assessments in other urban contexts.

Keywords: social housing; heritage values; assessment criteria; stakeholders; modern architecture; Oran (Algeria).

Introduction

This study examines the spatial and social formation of urban structures built in the suburban areas surrounding Oran, which served as zones of urban expansion. Many of these neighborhoods, initially located on the outskirts of the historic center, began to develop significantly in the 1950s, a period characterized by their construction as symbols of modernity and reflections of evolving "ways of living and housing," designed to address a persistent housing shortage (Trainer, 2018; Granath Hansson and Lundgren, 2019). Over time, due to the city's continuous eastward expansion, these estates are now located closer to the urban core.

In the context of heritage recognition and valorization, the large housing estates of the 1950s often regarded as modern colonial architectural heritage have frequently been stigmatized, marginalized, and largely overlooked in official

heritage policies. Nevertheless, attempts to reveal their aesthetic and historical value through rehabilitation, preservation, exhibitions, and public events have been proposed, though these remain limited due to insufficient awareness of this "shared heritage" (Legget, 2018). These estates embody the transition from substandard living conditions to innovative housing solutions and serve as witnesses to a continuous architectural history, linking the arrival of the French in Oran in 1831 to their departure in 1962.

Regarding the original position occupied by recognized architects in the field of social housing, some large housing estates illustrate the commitment to a singular architecture "traditional with a modern allure" that marries the requirements of the Algerian context with the signature and culture of master builders integrated into a rich and rational design process. This has given rise to different "ideal

types” of large housing estates marked by their complexities. They can be described as heritage if the various actors in the field identify their values, or they may be rejected based on perceived lack of quality. This categorization of major complexes recalls Paul Valéry’s statement that “*some are mute, others speak, and others, who are the rarest, sing*” (Amougou, 2006).

The core of this research lies in proposing a novel approach to heritage evaluation. We introduce a model evaluation grid that moves beyond conventional criteria by emphasizing distinctive indicators for determining the heritage status of this modern architectural legacy, acknowledging the diversity of elements necessary to identify and assess value. To guide this investigation, three key questions are posed: What relevant criteria should inform the heritage status of large housing estates? What elements constitute heritage within these estates? Are there examples in Oran that merit heritage protection? In addressing these questions, we hypothesize that heritage value is assessed according to criteria that form a dynamic and evolving model, continuously shaped by societal perceptions and contextual factors, which vary across different regions. The reconsideration of social housing as heritage reflects this shifting logic of heritage recognition (Hadbi, 2020); however, its validation requires rigorous scientific methods. This approach constitutes the primary objective of the present study.

To verify the hypothesis, a combination of investigative techniques was employed, beginning with an ethno-architectural analysis approach. This was reinforced by surveys conducted by the author, including semi-structured interviews with various actors involved in the heritage process and the inhabitants of the large housing estates, followed by questionnaires for the attribution of scores. The paper begins with a review of the scientific production on the notion of “heritage values” and its development over time. Furthermore, this paper explores a criteriology for each heritage value by elaborating an “evaluation grid” as a driving force to measure the heritage interest score for each large complex in Oran, allowing a passage from restrictive to modern thinking. We then proceed to compare their heritage profiles. In conclusion, the study answers the questions raised and indicates the open challenges offered by the importance of the patrimonialization of large modern Algerian housing estates.

Literature Review: Dynamic Values of Modern Heritage

The broadening of the notion of heritage has led to a proliferation and wealth of scientific literature on the term “value”. Identifying what makes heritage begins with the recognition of values – properties that distinguish a heritage object (Davallon, 2006). This

has become the most favored approach to heritage conservation, whether at national or international level through UNESCO (Poulios, 2014), while others consider it a mobile concept, a passage from fact to right, from desired to desirable (Laurent, 2003), a term most often used in discourses formulated in three dimensions: economic, aesthetic, and ethical (Bos et al., 2023). According to A. Versloot, each value is determined by the degree to which an object meets certain “criteria,” which has always been the *raison d’être* of heritage conservation.

The history of the theory of value was inaugurated by the founding father Alois Riegl in 1902. It stands for a system of values that identifies the qualities for which a monument is valued. Harrer (2017) considered built heritage as a masterpiece endowed with historical value, contemporary value, intentional remembrance value, use value, art value, and antiquity value. However, this original typology has continued to be revisited and even remodeled according to well-defined requirements by various expert researchers who have compared different variables. Essentially, the work of selecting sets of value typologies linked to the built heritage has been summarized in the development of an explanatory table in the research carried out by Fredheim and Khalaf (2016). This updating of values can in no way be complete or durable but rather perpetually in mutation over time and according to societies. Thus, a universal set of value typologies is impossible (Rudolf, 2006) because several elements intervene in the elaboration of a value typology, such as the type of object with patrimoniality (habitat or building, monument), the country context, and the nature of the actors (expert or non-expert (citizens, inhabitants)).

Certainly, this panoply of organizations on the elaboration of different typologies of values has focused on built heritage of nobility, beauty, and monumental character, notably archaeological and historical objects. Nonetheless, this does not deny their contribution to academic and practical work (De La Torre, 2014), as they have strengthened the consolidation of heritage values of objects (Fredheim and Khalaf, 2016). These values are endowed, not intrinsic, changing, not static (De la Torre, 2014), and cannot apply to all types of objects. There is another type of built heritage that arose during the modern movement: the large housing estate as social heritage, to which various researchers have contributed in order to identify values with the aim of including it in heritage lists. Undoubtedly, not considering values as a norm, rule, or law, this field of investigation inaugurates a work of value modeling, depending on several factors that cannot be defined outside any geographical, social, and historical context (Courbebaisse and Issot, 2022). This highlights a body of work focusing on the heritage values of large housing estates, with

each researcher focusing on one or two values for their evaluation a field so fragile and complex that it has become “a laboratory for new thinking” (Reichen, 2000). Positively, this research engine must not be limited to a few common architectural, aesthetic, or historical values (Amougou, 2006). With the method of rehabilitation of a large complex, “Ancely”, located in Toulouse, France, the value of use is analyzed as a potential approach to enhance practices, perceptions, and appropriations as a strategy for understanding a changing space (Issot, 2023). Among other things, the historical value of large housing estates in Algeria represents a radical break with rural architectural style. Regarding artistic value, it refers to the topical value theorized by Riegl, which lies in a modernity that does not free itself from the local and from history. Furthermore, Tapie (2014) introduces other “quality” values linked to large housing estates, which are spatial, urban, proximity, and, finally, reputational. In virtue of which, the values shared by various researchers are merely personal experiences for the purpose of identifying and determining an object for heritage status.

The review of diverse literature in this field has not only helped sharpen the objectives and refine the methodology of the present study but also facilitated the development of a value framework tailored to large housing estates. This framework must remain focused yet comprehensive, using clear language and minimizing overlap between values (Fredheim and Khalaf, 2016). It enables the classification of “cold” values, which are objective and yield consistent results for a given case study such as urban and architectural values into two

distinct categories. In contrast, “warm” values are interpreted variably by different researchers, leading to divergent outcomes. For instance, use value reflects residents’ experiences and perceptions, expressed through their level of attachment to places and their active role in shaping the living environment, as illustrated in Table 1.

Materials and Methods

The objective of this study is to identify the criteria for evaluating the architecture of large housing estates from the 1950s, which represent a significant component of the spatial structure of the mid-twentieth century. These estates were designed to provide a healthy living environment, high architectural quality, and well-planned urban composition, with some projects created by internationally renowned architects and specialists in mass housing. This research combines two complementary empirical approaches quantitative and qualitative forming a high-quality Mixed Methods Research (MMR) design. The study was conducted in four sequential phases, with an overview of the research stages illustrated in Fig. 1.

- **Step 1:** The research began with a literature review, which enabled us to construct a typology of values for housing in large estates. At that time, we collected technical data by means of ethno-architectural analysis (Pinson, 2016), comparing inhabited statements with photographs. This made it possible to carry out direct investigations in the field to substantiate the previously defined hypothesis (Baribeau, 2005).

- **Step 2:** 242 semi-structured interviews were carried out with three samples of the

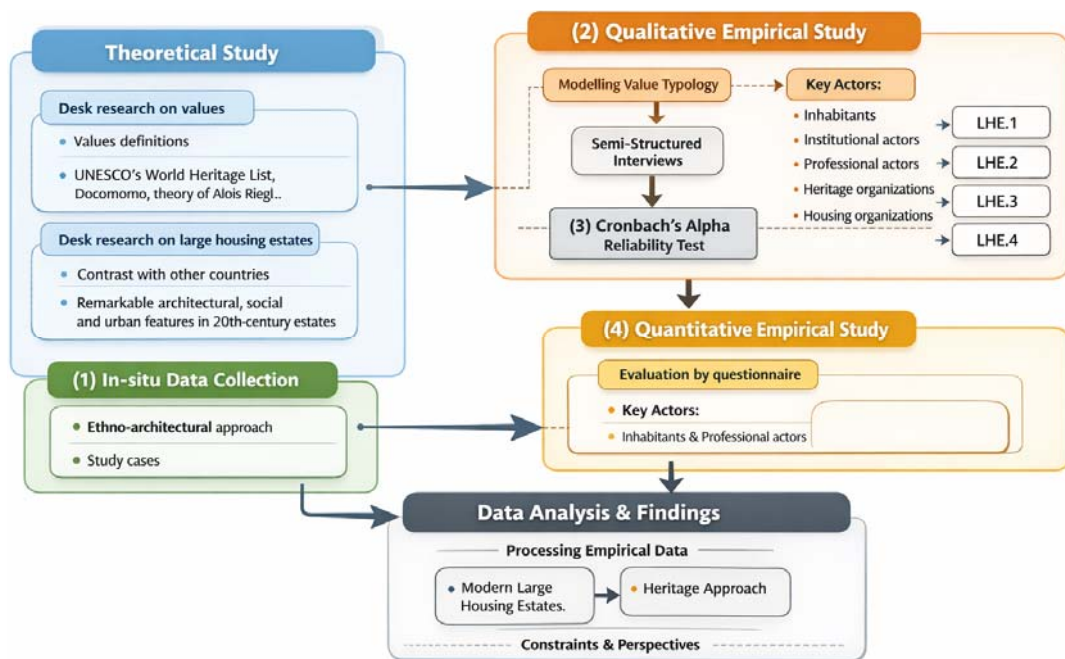


Fig. 1. Study framework

Table 1. Toward a conceptual framework of objective and subjective values in social housing

Objective heritage values	Subjective heritage values
1. Historical	6. Use
2. Urban	7. Memory
3. Architectural (conceptual, contextual, aesthetic, technical)	8. Artistic
4. Reputational	9. Aesthetic
5. Proximity	

Developed by the authors based on the literature review.

population (Robert, 2023): 20 institutional actors, 62 professional actors, and 40 residents for each major complex. Their knowledge of heritage is essential to this identification and assessment work. These groups were selected for their role in learning about, designing, maintaining, and living in these buildings. The semi-structured interview was organized according to the order of heritage values previously defined in the literature review. It began with key questions addressing the defined theme, progressively reframing the interviewees' discourse, accompanied by secondary questions to explore the subject matter in depth with the objective of collecting rich and detailed data (Angers, 1996).

As for the evaluation criteria, they were selected on the basis of the data obtained during the interviews; the discourses were grouped into categories and theoretically justified, seeing that they are part of the same globe of meaning for each value. These evaluation criteria have explanations that refer to the comments obtained from the interviewees' discourses. Consequently, this is a deduction based on newly acquired empirical data.

- **Step 3:** Credibility Test (Cronbach's Alpha): For a pilot methodology in which the data collected have been re-introduced through several instruments and methods, data analysis seems fundamental to test their reliability, which will help identify the gaps and limitations of the research tools selected. Cronbach's Alpha was adopted to examine reliability in this study since it is recommended in social science research to assess the reliability of methodological tools (Kim et al. 2016; Chileshe et al., 2015).

- **Step 4:** The assessment of values using the defined criteria is based on a quantitative approach using a questionnaire distributed in the field to two samples of the population (25 professional stakeholders and 200 residents for each major complex), bearing in mind that the questionnaire was formulated according to the destination of the stakeholders. The questionnaire enabled us to collect complete responses from 825 people, with the objective of converting them into quantitative data to give a score for each criterion identified beforehand for a comparative assessment of the heritage values of each major complex. Finally, on-site observation was carried out to complete what

was said with what was seen, looking for coherences and inconsistencies (Elizondo, 2024).

We are currently observing the third generation of residents of large housing estates, from the time they first moved in to the present day. In our sample of respondents, there is a notable predominance of young residents aged 28, representing 50 % of the sample, and middle-aged people up to 45, who make up 35 %. Those aged 70 and over make up a smaller proportion, 15 %. The field survey included perspectives from all three generations (older people, adults, and teenagers) and ensured balanced representation between genders (male / female) and between tenants and homeowners.

Presentation of the Case Studies

The city of Oran has a strong identity, reflected in its rich and diverse architectural heritage. These traces of the past help to make Oran a modern city: "Oran, on the contrary, is a city without suspicion, specifically, a completely modern city" (Camus, 1947).

For both its inhabitants and tourism, with the 19th edition of the Mediterranean Games held in 2022, Oran has become a place of exchange and encounter. Its public buildings and urban assemblies from earlier periods are generally the subject of assignment and classification. However, this heritage management is affiliated particularly by the continuation of colonial approaches (Aouchal, 2023). If no steps have been taken to recognize their heritage at its true value, it is because there is a lack of mechanisms for assessing the value of this modern colonial architectural heritage. The large housing estates that were located outside the city, far from the center, are, relatively speaking, better located today, as the city has expanded since then. They are generally well connected to the city center by public transport (Fig. 2).

The work of locating and identifying the initial corpus of large housing estates from the years 1950–1962 is an essential stage that precedes the phase of selecting and analyzing the large housing estates put forward for classification as national heritage. Some have been selected on the basis of relevant elements, both geographically and in terms of the architect's signature and their reputation. Two waves of their construction are distinguished by timing, political and social context, facade design, and volume layout.



Fig. 2. Map of the Oran metropolitan area showing selected large housing estates and distance markers from the city center to each neighborhood, compiled by the authors using a Google Earth © image

LHEM Housing, financed by the Algerian Cooperative Society for Muslim Housing, presents a new way of conceiving modern architecture adapted to Algerian traditions, an alternative solution to the design of traditional houses (Fig. 3). The large housing estate “La Quiétude (El Hanaa)” was built by the French architect Justin Marie between 1955 and 1956, using standardization and economy in design, with an average of 254 flats, four storeys, and a central courtyard area, but no integrated facilities or essential services. It contains three models of housing in a linear and monotonous layout. Additionally, the co-owned building on the Mirauchaux plateau, built in 1958 at the same time

as the adoption of the Constantine plan¹ by Messrs. Mauri, Pons, and Atbat, of which architect Georges Candilis is a part, includes different housing models, totaling 144 units marked by a wealth of architectural elements.

LHEE Housing: With the exception of the two examples chosen, these were originally intended for the families of naval officers, civil servants, and workers from mainland France. For the case of the large Dar Beida housing estate, built by Pierre Jean Guth, winner of the Grand Prix de Rome in 1951, it comprises 580 housing units in a program identical to housing in mainland France called “H.L.M. Improved”, with appreciable surface areas. Considered a human and social work, it is composed of remarkable architectural ensembles. The layout of these buildings has been chosen so that the main façades face roughly north and south, to benefit from maximum sunlight in winter and sea breezes in summer (Keffif and Hendel, 2024). They are equipped with district-wide facilities and public spaces. As for the Valmy housing estate, designed between 1954 and 1956 by the architect Fernand Pouillon, a specialist in social housing, it comprises 614 flats. The location of this major development was chosen in the municipality of Valmy, which offered a number of advantages, particularly in terms of climate and communication with Oran. The architectural ensemble was designed in broad, airy shapes, in keeping with new urban planning

¹ According to Deluz (1988), this was a last-ditch attempt to win back the Algerian population in its struggle against the colonial system.

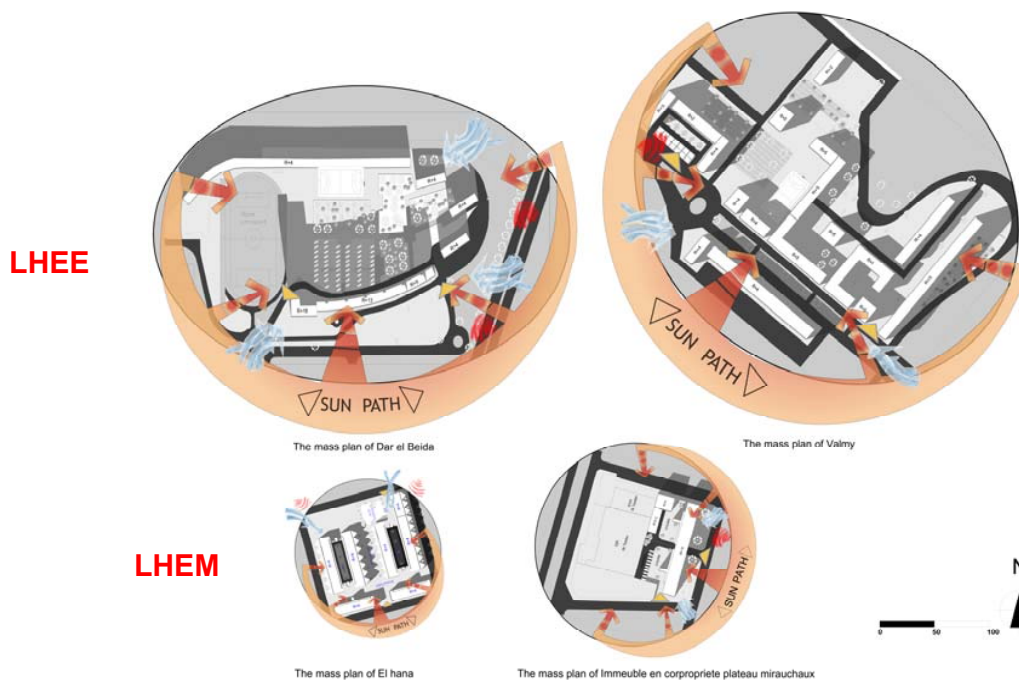


Fig. 3. Mass layout made for each case study. Source: Elaborated by the authors

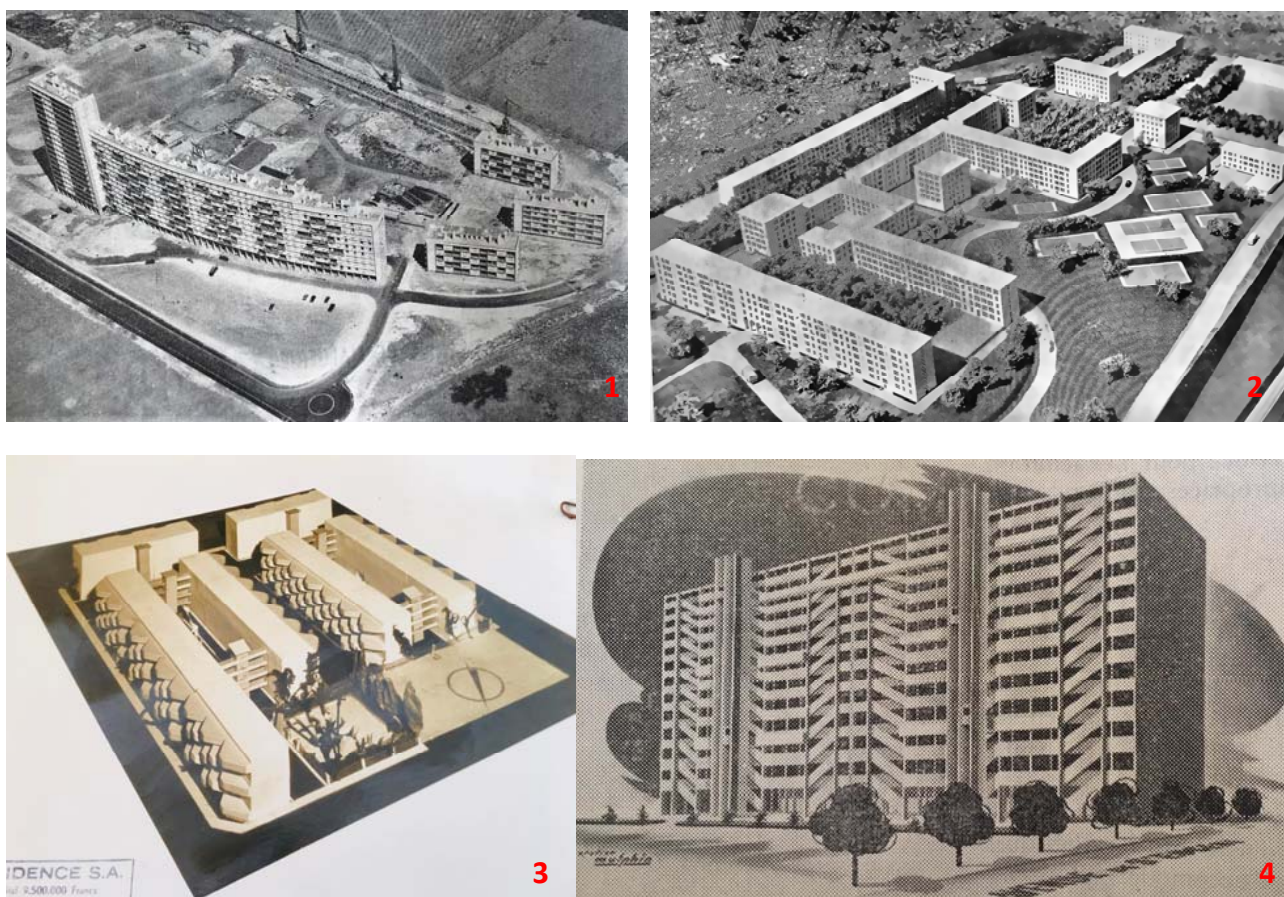


Fig. 4. Photos of: 1. Dar Beida; 2. The Valmy; 3. El Hana; 4. Immeuble en copropriété. Photos from Oran archives

principles. The number of homes at LHEE is 60 % higher than at LHEM (Fig. 4).

Results

Developing and Field-Testing an Evaluation Criteriology

Criteriology indicates the nature of the scale used to measure values that indicate a level of quality or its absence. It is defined by various actors in the possible perspective for protection purposes, either in its monumental dimension or simply to recognize it as a heritage element. This sort of criteria is considered an objective foundation (Brunel, 2015). In the case of large housing estates, the identification of criteria is based on references to the methodology deployed by the services involved in the “fabrication of Algerian heritage”, combining semi-directive interviews carried out in the field, where the integration of inhabitants is essential through the deciphering of their discourse, which revealed relevant elements to us. This approach to highlighting architectural heritage built in the twentieth century concerns not only experts such as architects, conservators, and architectural historians but also a much wider public (Grignolo, 2018), whose inhabitants are synchronized with an important stage in the life cycle of this architectural product.

Among other things, the criteria developed for large housing estates, which will enable them to enter the heritage field, are specific because this type of social heritage is fragile; it is a way of living that existed and continues to exist in perpetuity. The relevance of using consistent criteria is fundamental. This would mean distinguishing them from the remarkable, exceptional (monumental), and ordinary. The definition of the criteria is translated by passages of words (author, inhabitant, actor in heritage) as follows in Table 2.

Credibility Test

After testing the reliability of the responses obtained for each of the questions and items defined in the questionnaire, the result of the reliability test was reliable (Table 3), with a Cronbach’s Alpha of 0.889 for the heritage values and 0.951 for the evaluation criteria concerning the housing of the large housing estates of the 1950s (higher than 0.7). This justifies the coherence of the items and the perceptions of the interviewees and indicates that the questionnaire can be used for the collection of main data for similar themes.

Assessing Heritage Values: A Comparative Approach

Table 4 summarizes the comparative assessment of the previously developed values,

composed of a set of criteria identified from the survey conducted in the field, while incorporating a questionnaire distributed to both populations to situate the positioning of each major complex in the heritage approach. The results were processed using the ATLAS.ti tool and then transferred to Microsoft Excel for the graphical series, with the objective of

tracing the profile of the heritage approach. The first questionnaire relating to 5 out of 9 values was intended for the inhabitants of each large complex, while the second questionnaire relating to 4 out of 9 values was completed by various actors.

To observe the status of each criterion, we plan for ourselves according to the results processed

Table 2. **Assessment Criteria for Large Housing Estates According to the Survey**

Assessment Criteria ²	Definition
1.1 Notable personalities	Presence or historical association with important or influential individuals who contributed to the cultural, political, or social development of the area.
1.2 Significant events	Occurrence of important historical, cultural, or social events that contributed to the identity or historical value of the place.
1.3 The structure provides as proof of actions	The building or site serves as physical evidence of past human activities, achievements, or historical developments.
2.1 Innovative and extraordinary technical demonstration	The structure illustrates exceptional engineering, construction techniques, or architectural innovation for its time.
2.2 The use of unique materials	The building incorporates rare, locally specific, or technologically distinctive materials that enhance its value or uniqueness.
2.3 Remarkable designer's reputation	The project is associated with a well-known architect, planner, or designer recognized for their contribution to architecture or urbanism.
2.4 Ample lodging	Availability of adequate residential space capable of accommodating inhabitants comfortably.
2.5 Adapting to local requirements	The design responds effectively to local social, environmental, climatic, and cultural needs.
2.6 Rarity	The element, design, or typology is uncommon or unique within the regional or architectural context.
2.7 Integrity	The degree to which the original design, materials, structure, and character of the building or site remain preserved and intact.
3.1 Optimum sunlight	The extent to which the building or space receives adequate natural sunlight for comfort, health, and energy efficiency.
3.2 Orientation	The positioning of the building in relation to cardinal directions to optimize light, climate response, and environmental performance.
3.3 Wind protection	The ability of the design or urban layout to reduce the impact of strong winds and provide sheltered spaces.
3.4 Natural ventilation	The capacity of the building to allow air circulation through passive design strategies, improving indoor air quality and thermal comfort.
3.5 The culture of the architects	Reflection of the architects' cultural background, design philosophy, and architectural knowledge in the project.
4.1 Existence of sufficient public facilities	Availability of essential communal infrastructure such as schools, health centers, transportation, parks, and services.
4.3 Ecological sites	Presence of natural or environmentally valuable areas that contribute to ecological balance and environmental quality.
5.1 Quantity of households with a high level of education	Proportion of households where members possess higher educational qualifications, reflecting socio-educational conditions of the community.
5.2 Crime rate = number of crimes / population	Indicator measuring public safety, calculated by dividing the number of reported crimes by the total population in a given area.
6.1 The concept of genuine and distinctive ownership of shared spaces revolving around the notions of identity and security	Degree to which residents feel a sense of belonging, responsibility, and security toward shared community spaces.
6.2 Genuine and exclusive possession of the cell (identity, comfort)	The feeling of personal ownership and identification residents have with their private living unit, ensuring comfort and privacy.
6.3 Genuine and distinctive possession of public facilities (attachment and affection)	Emotional attachment and sense of collective ownership residents develop toward community facilities and public spaces.
7.1 High degree of ethnicity	Presence of diverse or strongly identifiable ethnic groups that contribute to the cultural and social character of the community.

² For this research, the word criterion also encompasses characteristics and factors, and this has been organised in a single table in order to avoid spreading out the explanatory diagrams.

Table 3. Reliability Statistics

Reliability Statistics on the Heritage Values of Large Housing Estates in the 1950s

Cronbach's Alpha	Number of Items
0.899	9

Reliability Statistics on the Criteria for Assessing Heritage Values

Cronbach's Alpha	Number of Items
0.942	30

Table 4. Comparative assessment of the heritage values of the large housing estate case studies

	Assessment Criteria	LHEE1	LHEE2	LHEM3	LHEM4
Objective Heritage Values	1. Historical value	1.66	2.66	0.33	1
	1.1 Notable personalities	0	2	0	0
	1.2 Significant events	2	3	1	3
	1.3 The structure providing as proof of actions	3	3	0	0
	2. Architectural value	2.42	3.14	2.42	2.57
	2.1 Innovative and extraordinary technical demonstration	2	2	4	4
	2.2 The use of unique materials	1	3	1	2
	2.3 Remarkable designer's reputation	3	4	1	3
	2.4 Ample lodging	3	4	1	1
	2.5 Adapting to local requirements	2	3	4	3
	2.6 Rarity	3	3	4	4
	2.7 Integrity	3	3	2	2
	3. Urban value	3	3.8	2.8	3.6
	3.1 Optimum sunlight	3	4	3	3
	3.2 Orientation	3	4	3	3
	3.3 Wind protection	2	3	3	4
	3.4 Natural ventilation	3	4	3	4
	3.5 The culture of the architects	4	4	2	4
	4. Proximity value	2.66	2	2.33	2.66
	4.1 Existence of sufficient public facilities	3	2	3	4
	4.2 Different modes of transport	3	1	3	4
	4.3 Ecological sites	2	3	1	0
	5. Reputational value	positive	positive	negative	negative
	5.1 Quantity of households with a high level of education	2	3	1	1
5.2 Crime rate = number of crimes / population	0	0	2 (0.06)	2 (0.034)	
Subjective Heritage Values	6. Use value	1.66	3	2.33	3
	6.1 The concept of genuine and distinctive ownership of shared spaces revolves around the notions of identity and security	3	3	3	4
	6.2 Genuine and exclusive possession of the cell (identity, comfort)	1	4	2	2
	6.3 Genuine and distinctive possession of public facilities (attachment and affection)	1	2	2	3
	7. Memory Value	2	2	2	2
	7.1 High degree of ethnicity	0	0	2	2
	7.2 Personal representation with positive connotations	4	4	2	2
	8. Artistic value	2.33	2	3	3.66
	8.1 Indicates an original appearance	3	2	4	4
	8.2 Epitomises a novel genre of artistic expression	2	2	2	4
	8.3 The interpretation of its meaning	2	2	3	3
	9. Internal and external aesthetic value	2.5	3.25	3	3.5
	9.1 Perception and enjoyment of visual or aural stimuli	3	2.5	3	4
	9.2 Infused with cognition, creativity, and sentiment	2	4	3	3

by ATLAS.ti that their sum corresponds to an overall score expressed in Figs. 5-6 (number of responses). We have established a correspondence between five scoring groups with a numerical rating (4, 3, 2, 1, and 0), with the criteria status structured in the following order: Exceptional, Superior, Strong, Medium, and Weak. Finally, all the ratings are converted into numerical values.

- 161 to 200: (Exceptional criterion) = 4;
- 121 to 160: (Superior criterion) = 3;
- 81 to 120: (Strong criterion) = 2;
- 41 to 80: (Medium criterion) = 1;
- 1 to 40: (Weak criterion) = 0.

The evaluation of the values revealed a strong connection between the heritage approach and the characteristics of the large housing estates. To understand the challenges and limitations of the heritage approach, the values were assessed based on the criteria evaluating the four large housing estates (Fig. 5).

Discussion

In light of the results obtained by adopting the main methodology (MMR), which is effective in determining the objective (Matović and Ovesni, 2023) and composed of several tools and approaches, this study has made it possible to bring together the trio of key and fundamental actors in the identification and assessment of hot and cold heritage values. The MMR enabled a much deeper understanding of the meaning of the data collected from different sources, as well as a great openness to different points of view, whose contextual criteria were easily identified, becoming the backbone of a heritage assessment with the aim of encouraging reasoned and respectful heritage intervention. The novelty of this methodology developed for this research is its provision of an opportunity for the inhabitant, considered a central actor (Grignolo, 2018), to collaborate in a heritage process for both stages, whether identification or evaluation. This has made it possible to define the Valmy City and the joint-ownership building on the Mirauchaux plateau as the most distinctive and remarkable housing estates, rich in heritage values (Table 4, Figs. 5, 6). Designed by the international architects specialized in social housing, Mr. Pouillon and Mr. Candilis, the first is distinguished by the coherence of the project's layout in its entirety, and the second as a unique artistic work of a new form (Score 4), with authentic and singular appropriation of common spaces that positively contributes to the maintenance of the social identity of the large housing estate (Score 3), despite its bad reputation in the city of Oran (negative), which has led to its marginalization. This confirms that the values of the large housing estate are intimately linked to the context of their identification as well as to those who express them (Courbebaisse and Issot, 2022). These two large housing estates bear witness to

an adaptation to local requirements, with a Score 3 recorded and Score 4 for their rarities, particularly the joint-ownership building on the Mirauchaux plateau, whose strategic location may facilitate its accessibility for visiting, surrounded by a variety of means of transport. The joint-ownership building on the Mirauchaux plateau has not undergone any formal modification or rehabilitation since its construction, which explains its technical solidity and has generated the preservation of its authenticity.

As for the Dar Beïda city, located in the vicinity of the joint-ownership building on the Mirauchaux plateau, it has a deficit (Table 4, Fig. 6) in terms of the degree of autochthony and memorable characters and idols (Score 2); the authentic and singular appropriation at the level of the cell and the facilities is weak (Score 1), due to the perpetual departure and arrival of families given its military status. Its curvilinear shape gives visual pleasure, with two identical scores of 3 — a specificity and principle that the architect Pierre-Jean Guth uses for his projects, being considered a renowned architect (Score 3) (Table 4, Fig. 6). Its strategic location has favored its visibility.

On the other hand, the City “La Quiétude” (El Hanaa) represents a new artistic form (Score 3) that the architect was able to combine with the audacity of having a modern form adapted to local requirements (Score 4), with a remarkable technical demonstration by the individual and collective patio (Score 4), which gave an architectural rarity in the Oran landscape (Score 4) (Table 4, Fig. 6). However, this large ensemble has a high rate of uneducated families from the slum, which has influenced the reputational value (negative), and an absence of memory characters or activity (Score 0). This considerable imbalance leads to acts that can harm the large ensemble in question, including destruction and mismanagement. Regarding the developed methodology, several limitations were confronted, including the lack of consensus between the inhabitants and the professional actors, particularly on communication techniques, which entailed considerable time in the progress of this research, as well as their lack of knowledge of the values identified by the inhabitants. Therefore, it will be necessary for future studies to train professional experts so that they develop additional skills in communication (Bacqué and Gauthier, 2011).

Conclusions

The results of this research illustrate that heritage values vary from one large complex to another according to the characteristics of each in terms of its identity, the experience of its inhabitants (translated by use and appropriation), its creator, and its history — which stands as a resource and has a greater bearing on its destiny as heritage in the making. Finally, the results encourage the

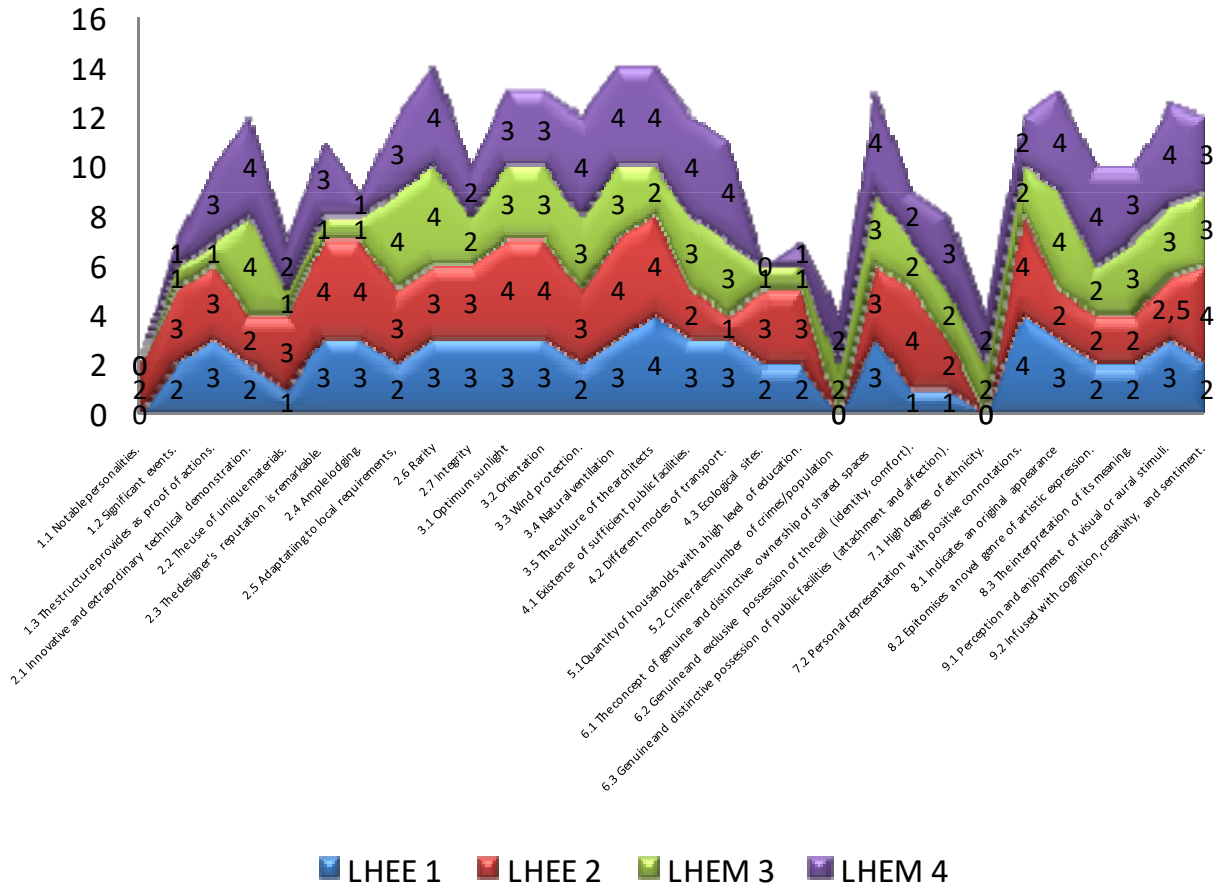


Fig. 5. Profile of heritage criteria for the large housing estates analyzed. Source: Authors

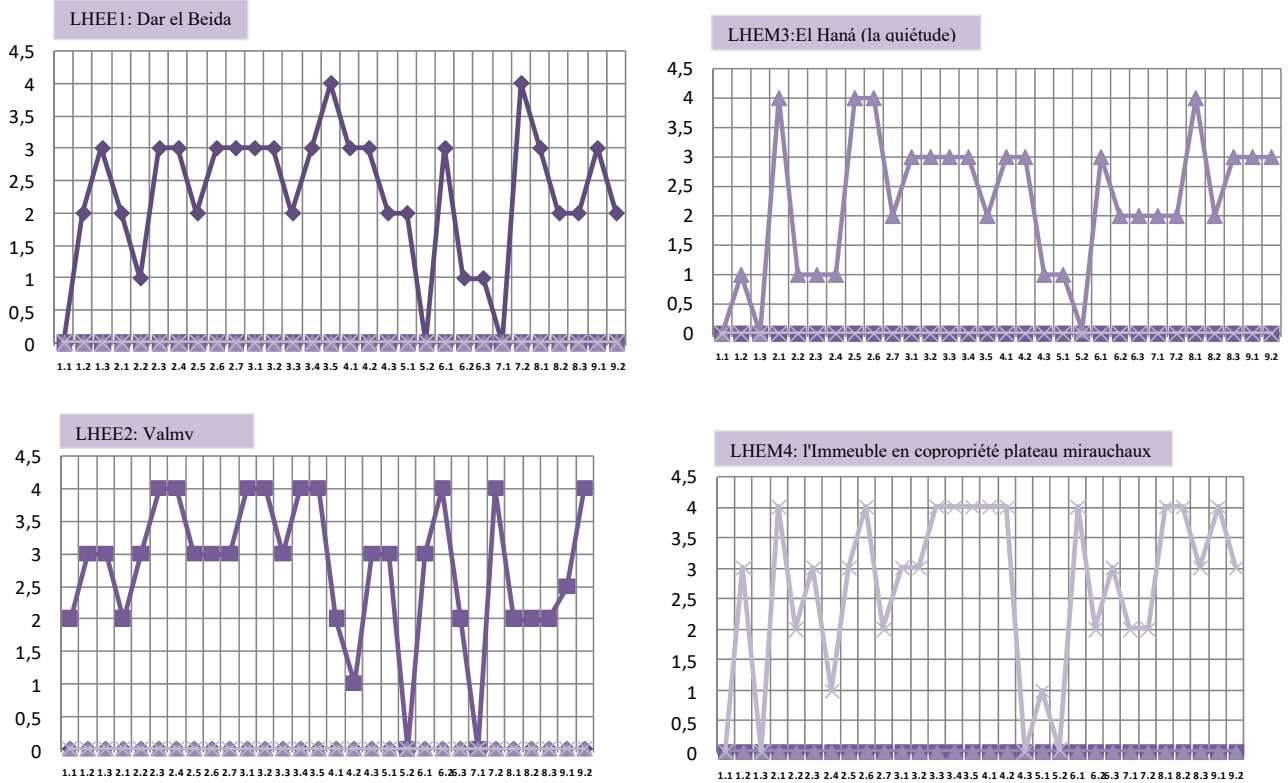


Fig. 6. Heritage graphs illustrating each large housing estate. Source: Authors' elaboration

attribution of heritage status in a certain way, given the diversity and richness of the heritage values identified while taking into account the historical and social context of the site. This research joins authors such as Bos et al. (2022), who defines the grid of heritage values as an operational scientific tool inducing a reasoned approach to the object to be evaluated, and Lemaitre (2020), where the “typology of values” is a “methodological tool” available to “evaluate a cultural property”, a form of “theoretical model” to “organize cultural values among themselves” and, based on which, “define the ‘value’ of a cultural asset”. Though the identification and evaluation of values presents a powerful search engine that draws consensus from different disciplines, such as social sciences, engineering, health, and economics, and they offer reliable tools and methods that could be applied by heritage experts. As attested by the results, this typology of inheritance produces a feeling of attachment and a lively social mode for the inhabitants, which contributes to social, architectural, and urban diversity on a local scale. In this regard, the comparative approach of values, with the involvement of inhabitants, facilitates the evaluation of large groups to express their experiences and other important information so as to support decision-making from above. That said, they often try to propagate and affirm the status of “expert”. Likewise, the results are in line with Johnston’s (2017) assertion that the evaluation approach through the participation of inhabitants in the heritage framework will allow the management of places, values, significance, and conservation.

One of the limitations of this study is that the common areas of LHEM have not been landscaped as planned in the plans approved by the architects, which has affected the appropriation of the spaces and could not be taken into account and analyzed. Further research could be carried out to compare the results of this study with those of large Maghreb assemblies with similar socio-political characteristics, with the intention of determining whether or not the model is extensible or should be simply a means of empowerment for each country.

In conclusion, the sample size of the case studies on the measurement of heritage values by the identification of criteria was limited to just four examples, which may prevent the identification of other criteria relevant to the evaluation of heritage values of large ensembles of the 1950s for a heritage approach of preservation or classification. To this end, future research efforts could multiply them by taking into consideration methodologies allowing them to be explored in a multi-perspective way, since this type of domestic heritage is complex and fragile at the same time. This underlines the need to continue to promote a wide inclusion of criteria to allow decision-makers to take charge of their conservation, mainly to develop more definitions – such terminology used by the trio of actors has shown to be easily understood.

Notations

LHEE — Large Housing Estate European

LHEM — Large Housing Estate Muslim

MMR — Mixed Methods Research

Atlas.ti — Tool of Qualitative Data Analysis (QDA)

References

- Angers, M. (1996). *Initiation pratique à la méthodologie des sciences humaines* (Practical introduction to human sciences methodology). (4e ed.). Anjou: Éditions CEC. (In French).
- Aouchal, H. (2023). *Cultural heritage management in Africa: the heritage of the colonized*, edited by George Okello Abungu and Webber Ndoro. Routledge, Abingdon. DOI: 10.1186/s43238-023-00100-5.
- Bacqué, M. H. and Gauthier, M. (2011). Participation, Urban Planning and Urban Studies: Four Decades of Debates and Experiments since S. R. Arnstein's "A ladder of citizen participation". *Participations*, 1 (1), pp. 36–66. DOI: 10.3917/parti.001.0036.
- Baribeau, C. (2005). L'instrumentation dans la collecte de données', *Recherches qualitatives* (2), 98–114.
- Bos, M., Stiernon, D., and van Moeseke, G. (2022). *Accompagnement à l'évaluation patrimoniale du bâti résidentiel bruxellois*. Louvain-la-Neuve: Université catholique de Louvain.
- Brunel, G. (2015). The value fair. *CeROArt. Conservation, exposition, Restauration d'Objets d'Art*. No. HS. Association CeROArt asbl. DOI: 10.4000/ceroart.4639.
- Camus, A. (1947). *La peste*, Éditions Gallimard.
- Chileshe, N., Rameezdeen, R., Hosseini, M. R., and Lehmann, S. (2015). Barriers to implementing reverse logistics in South Australian construction organisations. *Supply Chain Management*, 20 (2), pp. 179–204.
- Courbebaisse, A. and Issot, N. (2022). Large housing estates or how to reconcile refurbishment and heritagisation? In Situ. *Revue des patrimoines*, 47. DOI: 10.4000/insitu.34440.
- Davallon, J. (2006). Le don du patrimoine, Une approche communicationnelle de la patrimonialisation. *Extrait du Revue du Mauss permanente*, pp. 89–126.
- De la Torre, M. (2014). Values in heritage conservation: A project of the Getty conservation institute', *APT Bulletin: The Journal of Preservation Technology*, 45.2/3, pp. 19–24.
- Elizondo, L. (2024). Dwelling by appropriation: identity and attachment in low-income housing in Monterrey, Mexico. *Journal of Housing and the Built Environment*, 39 (1), pp. 473–492. DOI: 10.1007/s10901-023-10083-5.
- Fredheim, L.H and Khalaf, M. (2016). The significance of values: Heritage value typologies re-examined', *International Journal of Heritage Studies*, 22.6, pp. 466–481.
- Granath Hansson, A. and Lundgren, B. (2019). Defining social housing: A discussion on the suitable criteria. *Housing, Theory and Society*, 36(2), pp. 149–166. DOI: 10.1080/14036096.2018.1459826.
- Grignolo, R. (2018). An Encyclopedic Approach to the Conservation of 20th-Century Architecture. *Built Heritage*, 2 (2), pp. 93–102. DOI: 10.1186/bf03545696.
- Gyrkovich, M., Sotoca García, A., Matusik, A., Szarata, A., Szczerek, E., Suchón, F., and Poklewski-Koziell, D. (2021). Housing estates from the second half of the twentieth century as urban heritage structures: Example of housing estates in Mistrzejowice, Cracow. *Wiadomości Konserwatorskie*, (65), pp. 54–65.
- Hadbi, R. (2020). Revealing What Makes Heritage to Envision the Urban Renewal of Three Low-Rent Housing Buildings in Grenoble. *Les Cahiers de la recherche architecturale urbaine et paysagère* 8. DOI: 10.4000/craup.4606.
- Harrer, A. (2017). The Legacy of Alois Riegl: material authenticity of the monument in the digital age. *Built heritage*, 1 (2), pp. 29–40. DOI: 10.1186/bf03545661.
- Issot, N. (2023). To a Method of Social Housing Estate's Rehabilitation More Respectful of Residents and Use Values. The Case of Ancely, in Toulouse. *Le cas d'Ancely, à Toulouse', Les Cahiers de la recherche architecturale urbaine et paysagère*, 19. DOI: 10.4000/craup.13598.
- Kefif, F. and Hendel, M. (2024). A Typological Identification of the Large Housing Estates of 1950s in Oran. Exploring the Three-Dimensional Approach. *Journal of Architectural and Engineering Research*, 7, pp. 71–83. DOI: 10.54338/27382656-2024.7-07.
- Kim, S.-Y., Lee, Y.-S., Nguyen, V. T., and Luu, V. T. (2016). Barriers to applying value management in the Vietnamese construction industry. *Journal of Construction in Developing Countries*, 21 (2), pp. 55–80.
- Laurent, X. (2003) *Grandeur et misère du patrimoine, d'André Malraux à Jacques Duhamel' (1959-1973)*. Vol. 15. Librairie Droz.
- Legget, J. (2018). Shared heritage, shared authority, shared accountability? Co-generating museum performance criteria as a means of embedding 'shared authority'. *International Journal of Heritage Studies*, 24(7), pp. 723–742. DOI: 10.1080/13527258.2017.1413679.
- Lemaitre, A. (2020). *Critique d'un outil méthodologique à travers l'étude d'un objet métis*. In *CeROArt. Conservation, exposition, Restauration d'Objets d'Art* (No. 12). Association CeROArt asbl.
- Matović, N. and Ovesni, K. (2023). Interaction of quantitative and qualitative methodology in mixed methods research: integration and / or combination. *International Journal of Social Research Methodology*, 26 (1), pp. 51–65. DOI: 10.1080/13645579.2021.1964857.

- Pinson, D. (2016). L'habitat, relevé et révélé par le dessin: observer l'espace construit et son appropriation. *Revue Espaces et sociétés*, 1, pp. 49–66.
- Reichen, B. (2000). *Des villes nommés désir*, *Dynamic City*; Culot, M., Ed.; Skira-Seuil: Bruxelles, Belgium.
- Robert, A. (2023). *Méthodes d'enquêtes qualitatives en sciences humaines et sociales: approche réflexive Libérer la parole habitante*.
- Rudolf, B. (2006). *Intangible and 'tangible' heritage*, *A Topology of Culture in Context of Faith*. PhD thesis.
- Shwani, D. L. (2021). The Importance of Triangulation Methodology in Sociology. *Qalaai Zanist Journal*, 6 (2), pp. 284–303.
- Tapie, G. (2014). *Sociologie de l'habitat contemporain. Vivre l'architecture*, Parenthèses éditions.
- Trainer, T. (2018). The simpler way: Housing, living and settlements. In *Housing for degrowth*, pp. 120–130. Routledge.

ОТ СОЦИАЛЬНОГО ЖИЛЬЯ К НАСЛЕДИЮ: ОЦЕНКА АРХИТЕКТУРНОГО КАЧЕСТВА И ЦЕННОСТИ НАСЛЕДИЯ КРУПНЫХ СОВРЕМЕННЫХ ЖИЛИЩНЫХ КОМПЛЕКСОВ В ОРАНЕ (1950–1962), АЛЖИР

Фара Кефиф^{1*}, Закария Бенджима²

¹Научно-исследовательская лаборатория архитектуры и градостроительства компании Métropole Architecture Urbanisme Société (LAMAUS), Факультет архитектуры и гражданского строительства, Университет науки и технологий Орана имени Мохамеда Будиафа, Оран, Алжир

²Архитектурная фирма TOP-Building Bendjima, Оран, Алжир

*E-mail: Farah.kefif@univ-usto.dz

Аннотация

Введение. До настоящего времени ни одно исследование не разработало систематических критериев оценки исторической ценности социального жилья как архитектурного наследия, несмотря на его значительную роль в формировании городской и архитектурной идентичности. **Цель данного исследования** — выявить и оценить архитектурную значимость таких жилых комплексов с целью разработки стратегий их потенциального сохранения и внесения вклада в более широкое осмысление процесса создания культурного наследия. В этом контексте была проведена сравнительная оценка четырех крупных жилых комплексов в городе Оран, выбранных на основе ключевых факторов, включая репутацию архитектора, разнообразие городских форм и смешанное назначение жилья для мусульманской и европейской общин, что отражает сложную социальную и историческую структуру города. В исследовании используется подход смешанных **методов исследования** (MMR), интегрирующий качественные и количественные данные для обеспечения всесторонней оценки. Качественный компонент основывался на полуструктурированных интервью, что позволило выявить новые критерии оценки, основанные на экспертных и местных знаниях. Количественная часть исследования включала 200 анкет, распространенных среди двух групп населения — жителей и специалистов, ответы которых были систематически проанализированы с помощью программного обеспечения ATLAS.ti для выявления закономерностей и представлений о ценности культурного наследия. **Результаты** этого сравнительного исследования показывают, что ценность культурного наследия варьируется в зависимости от значимости конкретных критериев, подчеркивая важность выбора контекстно значимых показателей. Эти критерии не только влияют на оценку каждого объекта, но и определяют стратегии сохранения наследия, адаптированные к местным городским и социальным условиям. В конечном итоге, исследование предоставляет важные ориентиры для признания, оценки и сохранения алжирской жилой архитектуры второй половины XX века, предлагая идеи, которые могут помочь в проведении аналогичных оценок в других городских условиях.

Ключевые слова: крупные жилые комплексы; ценности культурного наследия; критерии оценки; заинтересованные стороны; современная архитектура; Оран (Алжир).