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THE MANAGEMENT OF THE M'ZAB VALLEY WORLD HERITAGE  
SITE: LEGAL ISSUES AND STAKEHOLDER COORDINATION

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# THE MANAGEMENT OF THE M'ZAB VALLEY WORLD HERITAGE SITE: LEGAL ISSUES AND STAKEHOLDER COORDINATION

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## ABSTRACT

The preservation of historic urban centers, although extensively studied, remains a major contemporary issue in the face of societal and environmental changes. The foundational works of Ruskin, Sitte, Giovannoni, Ravéreau, Choay, ... as well as the involvement of international organizations such as UNESCO and ICOMOS, have established a theoretical and practical framework for the protection of these sites. In Algeria, the management of historic centers raises crucial governance issues, particularly in a context of rapid and sometimes disorderly urbanization. This issue is particularly relevant for the M'Zab Valley, a UNESCO World Heritage site.

This study analyzes the mechanisms of heritage governance in the protected sector of the M'Zab Valley. It specifically examines the articulation between legal and technical instruments for urban development (PDAU) and heritage preservation (PPSMVSS), as well as the interactions between the various stakeholders involved in site management.

The methodology is based on two complementary approaches: an analysis of regulatory frameworks and interviews with stakeholders. The results highlight significant dysfunctions, including gaps in steering mechanisms, a lack of coordination between actors, and deficits in skills and solidarity among interveners.

The study proposes recommendations aimed at improving the regulatory framework and developing a new governance model promoting better coordination among actors. These proposals aim to optimize the management and preservation of this unique heritage, while taking into account contemporary urban development challenges.

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## KEYWORDS

PDAU, PPSMVSS, Urban Heritage, M'Zab Valley, Governance, Stakeholders

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## CITATION

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## **INTRODUCTION.**

The concept of heritage, etymologically defined as "the inheritance that descends from fathers and mothers to their children" (Choay, 1992). It constitutes a fundamental element of collective identity. As Emile-Auguste Chartier emphasizes, "True societies are held together only by the monuments of the past," thus highlighting the crucial role of heritage in social cohesion and territorial organization.

UNESCO (1972) expanded this definition by characterizing the urban heritage ensemble as a "group of buildings [...] of outstanding universal value." This conception has evolved historically, moving from a limited view of isolated architectural elements to a more contextual understanding, marked by three major cultural revolutions of the Christian West (Choay, 1992).

Faced with the challenges of modern urbanization, the protection of urban heritage has become a major issue, particularly in reaction to the functionalist urban planning practices of the 20th century, often unconcerned with heritage values (Brochu, 2011). This problem has intensified with chaotic urban development and uncontrolled urban sprawl (Chorfi, 2019).

While Western countries have gradually integrated heritage conservation into their urban planning (Payette-Hamelin, 2011), Algeria faces specific challenges. Despite various initiatives, urban heritage management suffers from excessive centralization of decisions and marginalization of local actors (Icheboudene, 2009). This situation calls for a new approach of shared governance, involving a plurality of actors in a more democratic exercise of heritage management (Srir & Messaoudene, 2022).

### **1- Problem statement.**

The M'Zab Valley, an architectural and urban planning jewel of the Algerian Sahara, represents an exceptional example of a traditional human settlement perfectly adapted to its environment, through the Ibadi rite which is at the origin of the creation of the cities of the Pentapolis (Adad.M.C & Aiche.M, 2013).

Listed as a UNESCO World Heritage Site since 1982, this valley, with its historic pentapolis and unique oasis system, embodies a centuries-old balance between habitat, agriculture, and natural resource management, where faith and self-sufficiency, ancient customs of Mozabite society, have led the Oases to survive in a hostile Saharan environment (Diafat.A. & Madani.S, 2019).

However, since the 1990s, this territory has faced major challenges arising from the confrontation between the imperatives of heritage preservation and the pressures of contemporary urban development. The observed transformations - conurbation along the Oued M'Zab, urbanization of historical palm groves, and unregulated occupation of reliefs - threaten not only the physical integrity of the site, but also the traditional practices and social fabric that have shaped its unique identity.

### **Research Questions.**

This study revolves around three main questions:

- How can we reconcile the imperatives of contemporary urban development with the preservation of the architectural and landscape heritage of the M'Zab Valley, while respecting local traditional practices?
- What are the quantifiable and qualitative impacts of recent urban growth on the integrity of the protected sector, both at the physical and socio-cultural levels?
- How can we optimize the existing legal and technical framework to ensure harmonious urban planning, respectful of heritage, by integrating traditional knowledge and contemporary needs?

### **2- Working Hypothesis.**

Our research hypothesizes that the observed dysfunctions in heritage site management stem primarily from two interconnected issues: an inadequate legal framework that fails to reconcile urban development with heritage conservation, and a fragmented governance structure that marginalizes traditional management systems. These problems reflect a broader challenge in sustainably preserving cultural heritage amidst modernization pressures, particularly in areas where traditional practices remain integral to local identity. By examining how these factors interact, we aim to contribute to more holistic and culturally sensitive approaches to heritage management that can better navigate the complexities of development while safeguarding valuable cultural assets.

### 3-Presentation of the study area.

The M'Zab Valley is located in the northern Sahara, approximately 600 km south of the capital Algiers (Fig.No. 01). It is named after the M'Zab Wadi that crosses it, flowing intermittently from Northwest to Southeast, thus forming a valley floor with an area of over 5,000 hectares (Babanedjar, 2008). This ancestral territory is marked by its ksour (fortified villages) of universal historical value, classified since 1971 by the Algerian public authorities as national heritage, then in 1982 by UNESCO as universal heritage, and finally in 2005 as a protected sector of 50 km<sup>2</sup> created and delimited by executive decree n°05-209 of June 4, 2005. It partially unites the territories of the Wilaya capital of Ghardaïa and the four communes of the Valley (Ghardaïa, Daya Bendahoua, Bounoura, and El Atteuf), which in turn cover more than 4,000 km<sup>2</sup> (OPVM, 2008) (Fig. No. 02). This historical package is also endowed with a sustained reputation through centuries-old institutions and modes of self-organization, which have contributed to the perpetual preservation of its urban and architectural capital, subject to very strict international standard protection rules and measures (UNESCO).



Fig. 1. Geographical location of the M'Zab Valley. Source: <https://www.bing.com/images/search>.

The pentapolis of the M'Zab Valley, composed of five ksour (fortified villages), was established at the beginning of the 11th century on rocky plateaus for defensive reasons and due to the proximity of the M'Zab Wadi (Fig. No. 02 bis). Between 1012 and 1347, the ksour of El Atteuf, Bounoura, Ghardaïa, Melika, and Beni Izguen were built, incorporating solutions to protect against floods and to free up agricultural land (Benyoucef, 2010). This architecture allowed the Mozabites to adapt to a hostile environment while preserving their culture and way of life.

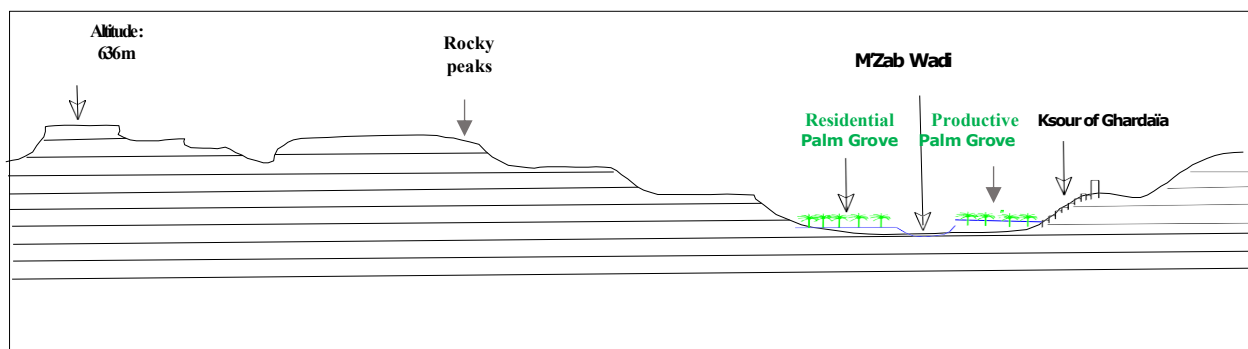
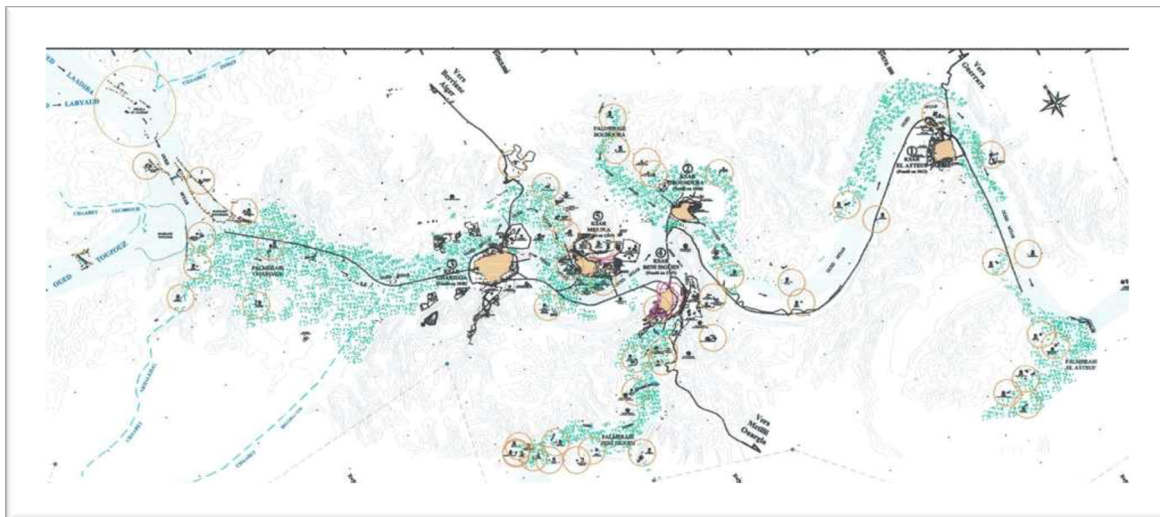


Fig. 02 bis: Thematic section on the morphology of the M'Zab Valley (11th century). Source: OPVM.

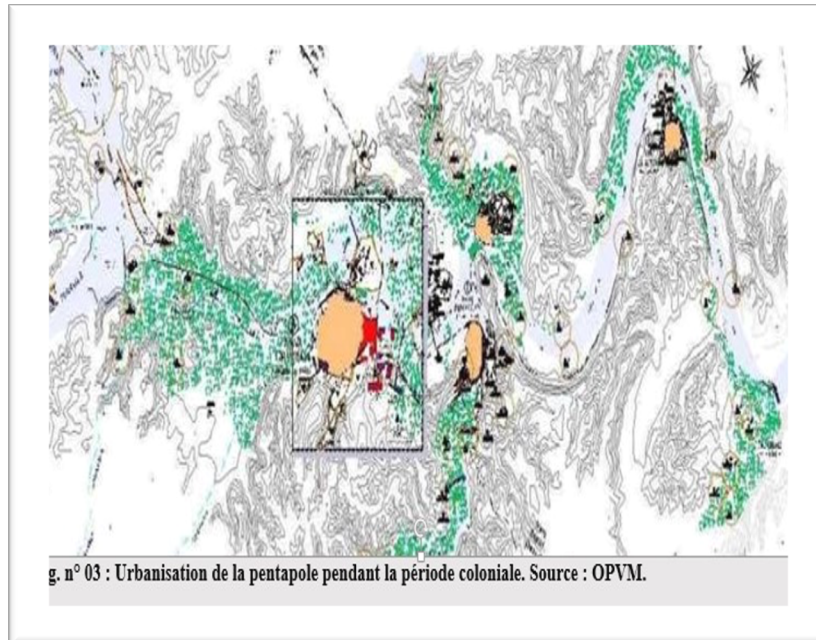




*Fig. 02 Map of the pre-colonial M'Zab Valley and Ksour forming its pentapolis.  
(Sources : OPVM-basemap / URBAT.*

#### **- Early Colonization Period.**

With the beginning of colonization, the Mozabites gradually opened their trade exchanges with the North and sub-Saharan Africa, transforming the valley into a commercial crossroads. The construction of a large souk near the Ksar of Ghardaïa marked this period of openness. However, the arrival of colonial authority in 1882 led to a gradual transformation of the urban landscape, with the construction of military and administrative buildings that disrupted the traditional fabric of the pentapolis. The discovery of energy resources in 1956 also favored the expansion of infrastructure (Fig.No. 03).



*g. n° 03 : Urbanisation de la pentapole pendant la période coloniale. Source : OPVM.*

*Fig. 03 : Urbanization of the pentapolis during the colonial period. Source : OPVM*

### -Colonial Period (1882-1962).

Since the installation of colonial authority in 1882, the M'Zab Valley underwent a progressive transformation, marked by the imposition of an administrative and military model that disrupted the traditional fabric of the pentapolis. To establish control over the region, military and administrative buildings were constructed south of the Ksar of Ghardaïa, at strategic points (Fig. No. 04). At the same time, the discovery of energy resources in 1956 led to the development of infrastructure such as roads and civil buildings for officials and merchants, thus expanding the extramuros area of the pentapolis.

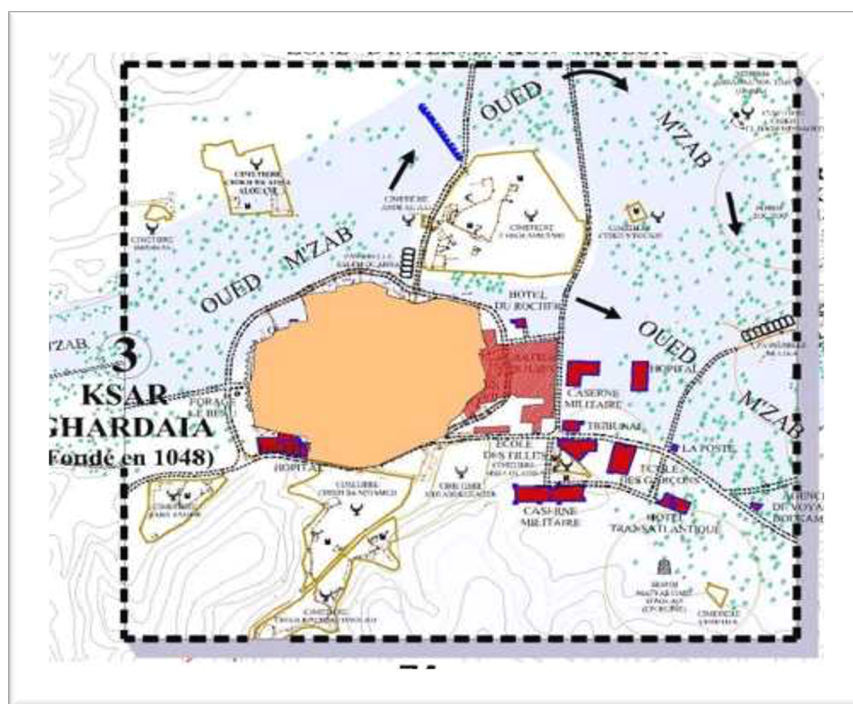


Fig. 04: Map of the urban actions carried out by the colonial military engineers south of the Ksar of Ghardaïa. Source : OPVM.

### -Post-Independence Period.

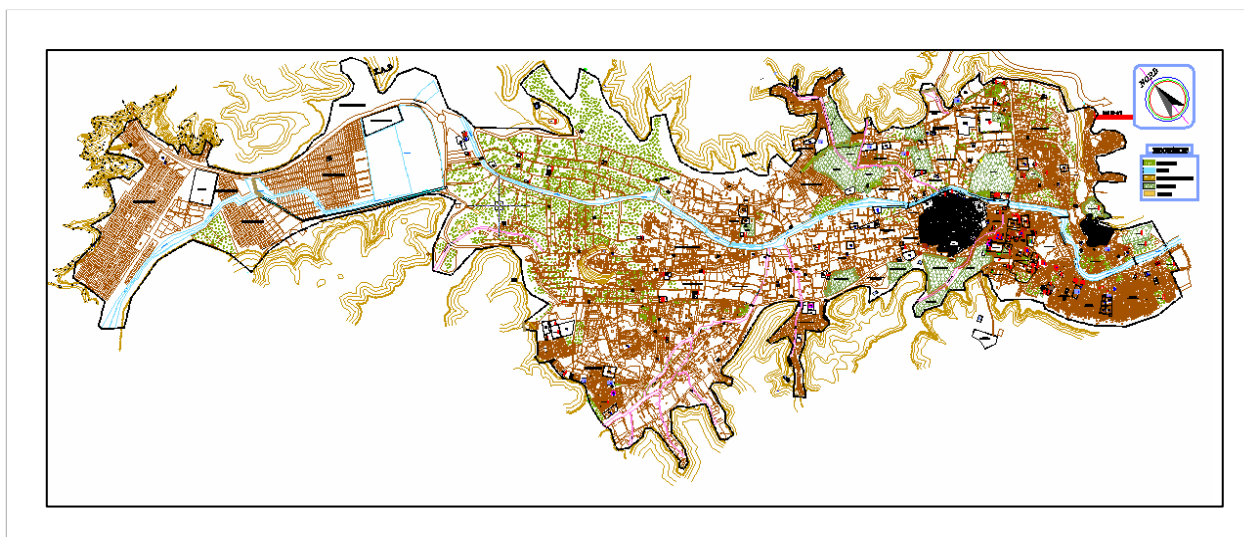
Following Algeria's independence, Ghardaïa evolved into a key economic hub due to its strategic location and nearby energy resources. Its designation as a daïra capital spurred rapid urbanization, often overlooking the ksour's cultural and agricultural value. The 1984 administrative reorganization accelerated population growth and informal settlement expansion. By the 2000s, urban saturation prompted the introduction of the PDAU (Master Plan for Urban Development) to regulate the city's uncontrolled growth. This trajectory underscores the challenges of balancing urban development with heritage preservation in historically significant areas.

### -The New Rank of "Wilaya".

Ghardaïa benefited from the opportunity of the administrative division of 1984, which elevated it to the rank of Wilaya capital. It received extensive construction programs to meet its operational needs (equipment, housing, roads, etc.), which encouraged foreign populations seeking employment to settle there, while public housing programs were unable to satisfy this demographic explosion. At the same time, for reasons related to the saturation of the Ksour, the indigenous populations preferred hidden self-construction on their own land parcels located in the palm groves. This practice generated numerous illegal housing districts occupying landlocked areas, the valley floor, and the immediate surroundings of the M'Zab Wadi, etc. (Babanedjar, 2008).

### - Period of the 2000s.

The accelerated urban growth prompted local public authorities to enact in 1998 the PDAU (Master Plan for Urban Planning and Development) of the Valley, which was already saturated, particularly by the conurbation of the Ksour (Ghardaia, Melika, Beni Izguen, and Bounoura) and the emergence of an unstructured and irregular urban fabric outside the walls. This fabric was generated by emergency operations and became increasingly sprawling, stretching along the M'Zab Wadi from the commune of Daya Ben Dahoua to that of El Atteuf (Fig. No. 05).



*Fig. 05: Map of urban development in the M'Zab Valley (Year 2018). Source: OPVM.*

### **METHODOLOGY: A MULTI-SOURCE APPROACH TO HERITAGE GOVERNANCE.**

Our research aims to analyze the complexities and ambiguities of the legal and operational framework governing the protected sector of the M'Zab Valley. This study relies on a rigorous methodology combining document analysis and field research.

Data collection and analysis are based on two complementary pillars. First, a comprehensive documentary analysis of legal and regulatory texts, including relevant laws and executive decrees, as well as essential urban planning documents such as the PDAU revised in 2008 and the PPSMVSS in its 2017 diagnostic phase, all obtained from DUAC, APC, and ANSS. Second, an in-depth qualitative survey, conducted since late 2023, involving interviews with two categories of actors: institutional (Wilaya, APW, APC, Directorate of Culture, Directorate of Water Resources, OPVM) and local elected officials from the APW and APC of Ghardaia, Bounoura, and El Atteuf.

Our analytical approach pursues three main objectives. First, the analysis of legal mechanisms aims to identify inconsistencies and gaps in legal provisions and assess their consequences on the Valley's development. Next, the study of technical instruments examines the relationship between the PDAU and PPSMVSS, questioning their duality or complementarity, while evaluating urban evolution in the Valley. Finally, the analysis of actor dynamics seeks to understand the operational difficulties encountered and to evaluate how local conservation concerns are addressed.

This methodology aims to decipher the mechanisms for conducting urban and heritage operations, analyze the relationships between different stakeholders, and evaluate the effectiveness of the current strategy for the M'Zab Valley. This rigorous approach will allow for an accurate diagnosis of governance challenges and propose recommendations based on a thorough understanding of the field and legal frameworks.

### **RESULTS AND DISCUSSION.**

The M'Zab Valley faces significant challenges in reconciling urban development with heritage preservation due to regulatory gaps. Two main instruments are involved: the Master Plan for Urban Planning and Development (PDAU) and the Permanent Plan for Safeguarding and Enhancing Preserved Sectors (PPSMVSS). The PDAU has proven ineffective in controlling urban growth, leading to poor construction quality and illegal developments, largely due to conflicts between local administrations and a lack of



intersectoral consensus. The PPSMVSS, although an important legal and technical tool, remains non-operational due to bureaucratic obstacles and procedural complexities. Unlike the PDAU, which is initiated at the municipal level, the PPSMVSS is adopted by the provincial assembly (APW) at the request of the Wali, thus creating a disconnect in local governance.

This procedural divergence has contributed to accelerated urbanization at the expense of heritage preservation in the M'Zab Valley. The lack of coordination between these regulatory instruments has led to significant deterioration of the heritage. Urban planning tools (PDAU/POS) are inadequate for dealing with historical sites, treating them as homogeneous zones similar to newly created areas. Meanwhile, the inertia of the PPSMVSS has exacerbated heritage degradation. According to the OPVM, between 1954 and the 1980s, 15% of Ghardaïa's palm grove was affected by urbanization, with further deterioration occurring after 1984 when Ghardaïa became a provincial capital.

#### **- On the Plurality of Actors in the Governance of the M'Zab Valley.**

The lack of coordination among actors in the M'Zab Valley reflects a legitimacy of the sovereign state where civil society is often excluded, leading to tensions over land. This results in squandering and abuses that compromise any rational planning. In this context, individual power tends to surpass that of institutions, favoring a policy of exclusion at the expense of meritocratic competition. To remedy this situation, it is imperative to adopt a holistic strategic planning that involves all partners and stakeholders, supported by real political will and an effective governance system.

The question of whether the concept of governance can solve the crisis of governability in the protected sector of the M'Zab Valley is crucial. According to Kadri & Kettaf (2018), despite the efforts of the Algerian state since 1962 to protect urban space, old urban fabrics continue to deteriorate. City makers struggle to establish coherence between urban development and heritage preservation, due to institutional dysfunctions that harm urban planning and exacerbate socio-spatial imbalances. In this protected sector, ungovernability is exacerbated by a plurality of actors making the situation even more complex. Although decentralization has been implemented since 1990, urban planning laws and procedures have not been accompanied by the necessary reforms to strengthen governance. Operational planning tools also lack coherence, which hinders the ability to share power and mobilize competent human resources.

The Wali plays a central role in local governance, being responsible for administration and spatial planning. However, his extensive power does not guarantee optimal efficiency in project implementation, often hindered by a lack of coordination and insufficient skills. The expansionist attitude of some officials in the face of rapid urbanization threatens the urban heritage, exacerbating socio-environmental difficulties in the M'Zab Valley through the exponential consumption of land (Table No. 01).

*Table 01: List of SOPs programmed for the Commune of Ghardaïa, capital of Wilaya.  
Source : DUAC and OPVM.*

N°	Name of the SOP	Area (ha)	Coefficient of Footprint (CES)	Ground Occupancy Factor (COS)	Nature de l'opération
01	Ioumad	15,55	0,7	2	Urban restructuring (UR)
02	Ksar Melika	6,7	1	2	UR
03	Tichrihine	23,5	0,7	0,23	UR
04	Theniet El makhzen	70	0,8	2	Urban redevelopment (U Red)
05	Downtown	49	0,7	2,1	U Red
06	Ksar Ghardaïa	26,7	1	2	Urban Conservation (UC)
07	MelikaBouhraoua (Hadj Messaoud)	56,5	0,8	1,6	Réa U
08	Entrance to Ghardaïa	08	0,7	1,4	Réa U
09	Mermad	95	0,8	1,6	UR
10	Bensmara Baba Oldjema	100	0,7	1,4	UR
11	Baba Saad	41,7	0,6	1,2	U Red
12	Ighoza	70	0,6	1,2	U Red
13	ChaabetNichane	21	0,8	1,6	U Red
14	Ogba 1-2	26	0,6	1,2	U Red
15	Atrouche	27,6	0,7	4,4	U Red

16	Chihani	31,5	0,6	1,2	UR
17	Chihani extension	79,5	0,6	1,2	UR
18	Belghanem south	45	0,7	1,4	UR
19	Bebdjeblne	56,7	0,8	1,6	UR
20	Salouhaoudjrinet	65,7	0,15	0,35	Conservation of palm groves (CP)
21	Bouchemgène 02	54,6	0,15	0,35	CP
22	Salouha	520,5	1		U Red
23	Bouchemgène 01	61,8	0,15	0,35	CP
24	Labdouaat	40,6	0,4	0,8	UR + CP
25	Akhekhel	29	0,35	0,7	UR + CP
26	Korti east	54	0,3	0,6	UR + CP
27	Lachbour	123	0,15	0,35	CP
28	El nouh	76	0,5	1	UR
29	Touzuz district	123	0,5	1	UR
<b>Totals</b>	-	<b>1998.15</b>	<b>0,15&lt;V&gt;1</b>	<b>0,23&lt;V&gt;4,4</b>	-

The governance of the M'Zab Valley is marked by conflicts between institutional and political actors. Local administration representatives (APC) are in conflict over administrative control, which hinders decision-making and development. The Wali, as the state representative, exercises supremacy over other actors, often marginalizing elected officials and executive directorates, particularly those responsible for culture. This situation leads to unilateral decisions, such as the Ghardaïa palm grove sanitation project, initiated without consultation with the OPVM.

Citizen participation, although provided for by law, is largely absent in the management of M'Zab Valley affairs. Citizens, formerly represented by local community structures (The Azzabas), are now the weak link in the local chain, with little incentive to participate in solving their problems. This situation is exacerbated by the slow procedures for developing, approving, and implementing legal and technical instruments framing urban development (PDAU/POS). These delays render the instruments obsolete in the face of rapid urbanization, leading to serious consequences such as encroachment on agricultural land and occupation of the M'Zab Wadi bed, thus increasing the risks of catastrophic flooding (Fig. No.06).



Fig. 06: Overflow of the M'Zab wadi during the 2008 floods. Source : <https://www.algerie360.com/>.

While it is well known that the phenomenon of flooding is recurrent according to information gathered in December 2023 from the services of the Water Resources Directorate of the Wilaya of Ghardaïa (Table No. 02), the human factor remains the main cause of destructive damage that has impacted the M'Zab Valley. This is due to the uncontrolled establishment of illegal housing along the riverbeds and in flood-prone areas, without regard for modern protection devices or construction rules derived from ancestral engineering, without which the ancient ksour of the M'Zab Valley would have suffered the same damage. Regarding this, the Head of Government at the time declared on October 11, 2008, on Algerian public radio: "These floods have caused material damage estimated at nearly 250 million euros, including 200 million for infrastructure."

Table 02: History of the floods of the Oued M'Zab and its impact on the M'Zab Valley. Source: Author on a documentary background of the Directorate of Water Resources of the Wilaya of Ghardaïa (March 2024).

Period	Date	Place	Causes/Effects
14th century	1306	-	-
18th century	1780	-	-
19th century	1848	Palm grove of Ghardaïa.	Destruction of more than 300 homes.
		Taghribt region.	Destruction of the traditional watershed system.
Early 20th century	1901	Palm grove of Ghardaïa.	- Floods for 02 days. - Water level reaches 10 m. - Collapse of the Ahbas Ajdid dike.
	April 1908	-	-
	December 1913	-	-
	1914	-	-
	October 1951	Ghardaïa, Béni Isguen, Berriane and Guerrara	Collapses of houses and traditional hydraulic developments have been recorded.
Mid-20th century	September 1952	-	-
End of the 20th century	June 1991	-	04 deaths, collapse of nearly 190 houses, classification of 500 houses at risk of collapse, 3000 houses partially flooded.
Early 21st century	01 October 2008 (1st day of Eid El Fitr)	-	- Devastating flood caused by the Oued Laadira, one of the tributaries of the Oued M'Zab upstream. - Human damage: 24 dead, hundreds injured and 5000 affected. - Material damage: Total collapse of 2,370 houses, partial collapse of 29,229 houses, Destruction of traditional hydraulic structures including the Amlaga and Bouchemdjan dikes. - Disappearance of 1,100 wells and the collapse of hundreds more.
		El Atteuf	Collapse of the dike downstream of the valley.
		Laadira, Daya Bendahoua, El Atteuf and Metlili	- Damage to more than 600 ha of agricultural land. - Damage to 19,000 palm trees. - Destruction of 60,000 ha of trees. - Disappearance of 15,000 farm animals swept away by the floods.

Moreover, the instability recorded between 2013 and 2015 in the capital of Ghardaïa Wilaya following ethnic conflicts presents an alibi for speculative reconquest of peripheries adjacent to ancient Ksour and agricultural plots in the palm grove located in the protected sector of the M'Zab Valley. Also, each electoral suffrage brings changes through newly elected political components that, according to their political tendencies and convictions, outline new objectives and launch new projects to mark their passage at the head of local authorities (Wilayas, APW, and APC). This phenomenon is not unique to Ghardaïa; it concerns many territorial communities (Algerian cities), which record discontinuities in urban action mainly due to the high rotation of institutional and/or political actors, who seek, through their project management, only to distinguish themselves from one another.

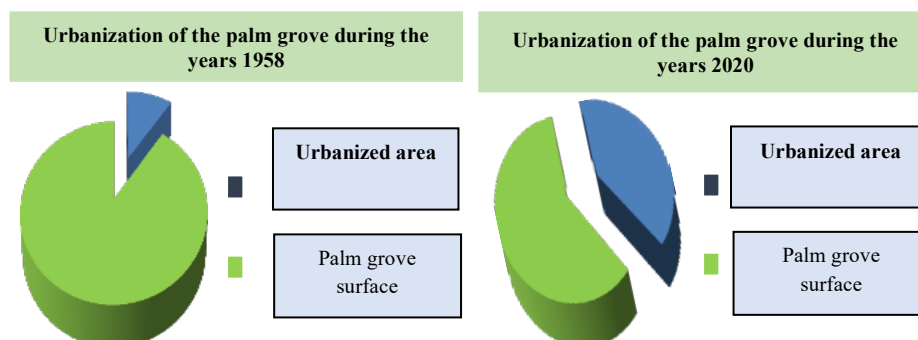
#### - The Mayors (PAPC), figurants in the local governance chain.

Regarding the Municipality, which is the basic territorial community of the State (Article 01 of Law No. 11-10 of June 22, 2011 relating to the municipality), it is, according to Article 02 of the same law, the territorial base of decentralization and the place for exercising citizenship and constitutes the framework for citizen participation in the management of public affairs. It contributes with the State, in accordance with the provisions of Article 03, notably, [...] to spatial planning, [...] as well as to the protection and improvement of citizens' living environment. The APC president is responsible for, among other things, [...] ensuring the



preservation of historical and cultural heritage [...] ensuring compliance with standards and requirements in terms of land, housing, urban planning, and protection of immovable cultural heritage (Article 94).

The municipality ensures, with the assistance of the State's technical services, compliance with land allocations and the rules for their use; ensures permanent control of the conformity of construction operations [...] ensures compliance with provisions for combating precarious and illegal constructions (Article 115). However, this is not the case for the palm grove and the bed of the M'Zab Wadi, which have been fragmented due to anthropic effects and massive, uncontrolled urbanization (Fig. No. 07 and 08).



*Fig 07: Sprawl of the palm grove of the M'Zab Valley.  
Source: Author on OPVM documentary background, 2020.*



*Fig 08: Anthropogenic effects and spread of new constructions in the oasis of El Ateuf.  
Source : OPVM, 2020.*

The M'Zab Valley faces major challenges in preserving its architectural and cultural heritage. Despite its UNESCO site status, the region suffers from uncontrolled urbanization that threatens traditional ksour, oases, and historical monuments. The OPVM report of June 2020 highlights the alarming state of conservation, characterized by the demolition of traditional dwellings, the fragmentation of oases, and the obstruction of the urban landscape by inappropriate constructions (Fig. No. 09 &10).



*Fig. 09 &10 : Sprawl of the productive palm grove of the Ksar of Ghardaïa by entities with strange typologies at the site. Source : OPVM report, 2020.*

Local governance in the M'Zab Valley is marked by an imbalance of power between the municipalities and the wilaya. Although the Popular Communal Assemblies (APC) are theoretically responsible for managing urban development and heritage preservation, they are in reality marginalized in decision-making processes. The communes, financially dependent on the wilaya, have very limited room for maneuver and are often reduced to a consultative role in the development of urban plans (PDAU, POS, PPSMVSS).

This situation reveals a centralized governance where the notion of "all-state" takes precedence over participatory local development. Despite legal provisions encouraging consultation with civil society, it remains little involved in decision-making processes. The absence of collaborative management and genuine co-governance hinders the effective reconquest and preservation of the protected sector of the M'Zab Valley. Local elected officials, although aware of their theoretical prerogatives, find themselves in practice limited in their ability to initiate and manage local development projects, thus contributing to perpetuating a system where important decisions are made at the central or wilaya level.

The governance of the M'Zab Valley is characterized by a strong centralization of power around the Wali, representative of the State and delegate of the Government. This institutional configuration directly influences local development, with the technical directorates of the wilaya (DUAC, OPGI, Directorate of Culture) subject to the decisions of political actors. This hierarchical structure hinders the implementation of harmonious and integrated urban development, in contradiction with the recommendations of the UN-Habitat New Urban Agenda which advocates cooperation between all administrative levels.

The Directorate of Urban Planning, Architecture and Construction (DUAC), although responsible for delegated project management for urban studies (PDAU and POS), faces major challenges. The Popular Communal Assemblies (APC), theoretically responsible for initiating urban planning instruments, often delegate this mission to DUAC due to lack of means or will. This situation is exacerbated by numerous transgressions of urban planning regulations, committed by influential actors (political, social, and economic) who exert pressure to obtain exemptions, to the detriment of the environment and urban landscape of the valley.

The Office for the Protection and Promotion of the M'Zab Valley (OPVM), under the supervision of the Ministry of Culture, faces a crucial lack of human, material, and financial resources to effectively carry out its heritage protection missions. Faced with rapid urbanization and a high concentration of population in the protected sector, OPVM struggles to effectively control urban development. The OPVM representative highlights the contradiction between the refusal of many building and demolition permits by their services and the observed rampant urbanization, suggesting problems of complicity and circumvention of rules, this has led to the generalization of the proliferation of illegal housing in all the enclaves of the Valley, on the slopes of the natural landscape and in the new poles of the plateaus. (Fig.No 11).

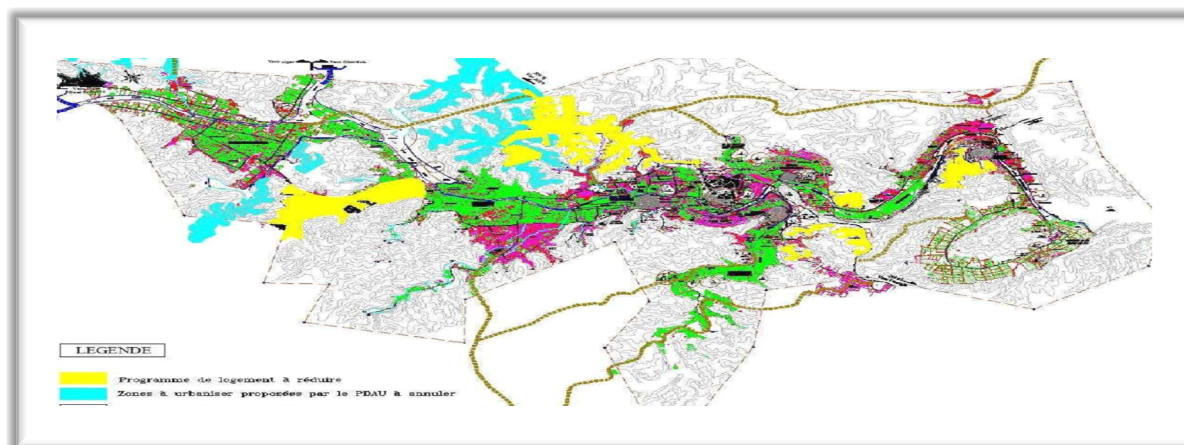


Fig. 11: Map of the proliferation of illegal housing in the M'Zab Valley. Source : OPVM et URBAT.

These challenges are aggravated by several factors: a lack of technical skills and expertise, financial constraints limiting OPVM's intervention capacities, particularly for the rehabilitation of old fabrics, and procedural problems such as the absence of the Safeguarding Plan (PPSMVSS) due to conflicts between the culture directorate and the design office responsible for its development. All these factors contribute to a situation where urban development escapes the control of the institutions meant to regulate it, thus threatening the heritage and environmental integrity of the M'Zab Valley.

#### - Traditional Socio-Political and Religious Institutions.

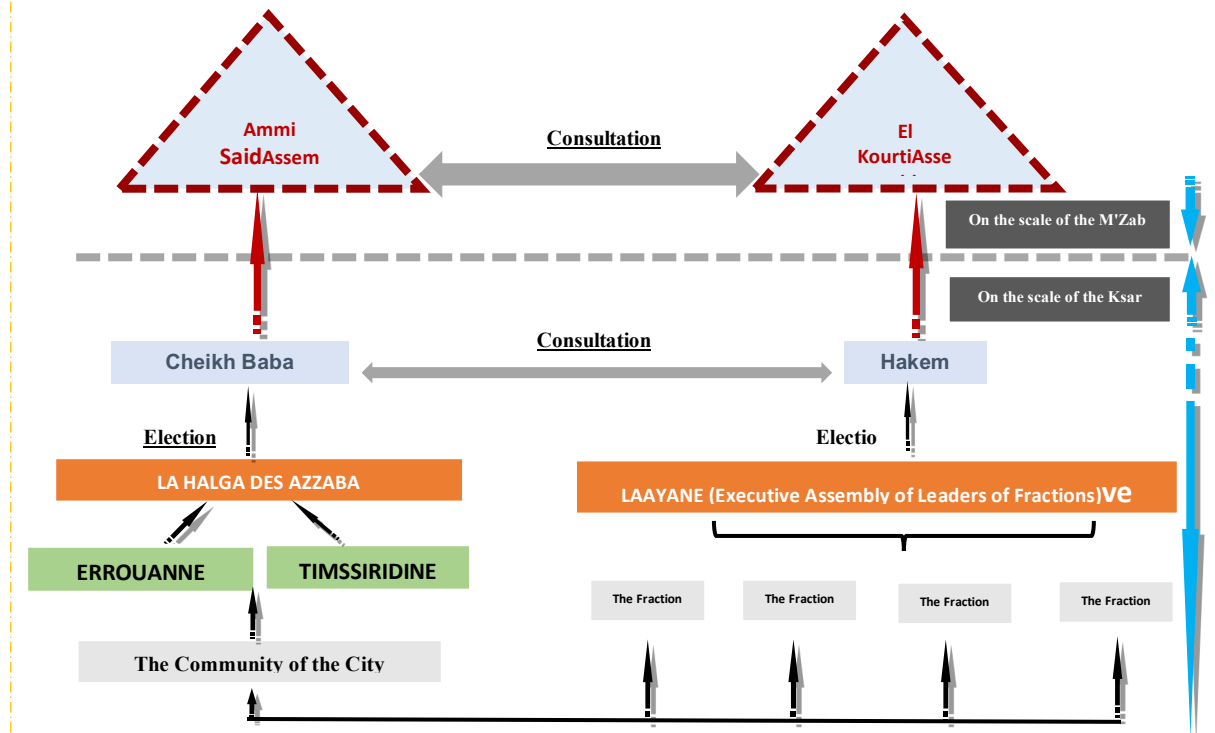
Through our various readings, investigations, and notably an interview with a religious figure nicknamed "Hadj Baba Saad," we discovered another predominant factor that hinders the control missions carried out by the public administration regarding building production in the palm grove and corroborates the allegations of the OPVM representative. This concerns large private land areas that are not registered, escaping state census due to their legal status and family and religious property rights "habous" governed by a community, customary, and ethnic law specific to the Ibadite community, inspired by the Muslim religion, whose management is ensured by a sort of ancestral "Task Force" commonly called "the Council of Azzaba" (Fig. No. 12). This high religious and legislative authority controls the management of the M'Zab Valley and ensures its development since the building of El Atteuf in 1012 (the first Ksar of the pentapolis), in the areas of housing construction, agriculture, and water management in the Ksour of the pentapolis. "The Azzabas" are democratically supported by a Council of women called "Timssiridine" whose missions are to supervise the female gender in terms of orientation and awareness, particularly religious. Added to all this customary system is "the Council of Administrators of the Torrent and the Throne," an executive institution directed by the mosque, which ensures several missions of religious, social, legal, economic, and defensive orders. In sum, it is responsible for implementing customary laws inspired by "Islam" and enacted by "the Council of Azzaba."

An interview with an executive from the Directorate of Agricultural Services (DSA) reveals that the cramped nature of the ksour has created an urgent need for housing and land for extended Mozabite families. The inherited agricultural land in the palm groves adjacent to the Ksar of Ghardaïa has been used to build new dwellings, leading to a fragmentation of agricultural lands and unprecedented illegal urban sprawl.

An executive from DUAC affirms that these illegal constructions do not respect any urban planning standards. Although some owners have attempted to legalize their constructions through rural housing programs or Law 08-15, most applications have failed due to administrative complexities or lack of property titles.

A resident of the palm grove emphasizes that self-construction in the palm grove has allowed for the preservation of the Mozabite community's customs and traditions. This social cohesion explains why many families refuse collective housing programs, deemed unsuitable for their way of life. Some families who have benefited from these housing units have even returned to the Ksar or the palm grove to maintain their social ties.

Fig. No. 12: Traditional Socio-Political and Religious Institutions in the M'Zab Valley.  
Source : Author 2024.



#### - Citizen Participation.

Governance and sustainable development are central concepts for the future of the M'Zab Valley. The 2020 Algerian Constitution guarantees the right to a healthy environment within the framework of sustainable development, aligning with the definition from the 1987 Brundtland Report. This approach aims to meet present needs without compromising those of future generations, emphasizing essential needs and limitations imposed by the state of technology and social organization.

International organizations like UN-HABITAT (2016) and UNESCO (1972) advocate for an inclusive and holistic approach to urban development and heritage preservation. They encourage coherence in urban development plans to promote social inclusion and consider urban heritage as an asset for the socio-economic development of cities. However, the urban planning and heritage model adopted in the M'Zab Valley has produced urban, heritage, environmental, and socio-economic dysfunctions, mainly due to management conflicts and deficiencies in decision-making instruments.

Governance in the M'Zab Valley requires the involvement of all stakeholders through a solidary, consensual, and shared mode. Citizen participation is considered essential in this process. Algerian law stipulates that the Popular Communal Assemblies (APC) must inform and consult citizens on development and planning priorities. This participatory approach is encouraged at all stages of planning and implementation of urban and heritage policies, in accordance with UN-Habitat recommendations.

Despite these legal provisions and international recommendations, citizen participation in the M'Zab Valley remains limited in practice. The role of civil society is often confined to participation in electoral polls and festive events. Local associations, constrained by their non-profit status and financial dependence on the wilaya, struggle to play a significant role in decision-making processes. This situation contrasts with the aspirations for participatory and inclusive governance, highlighting the gap between stated principles and their concrete application in the local context of the M'Zab Valley.



## CONCLUSIONS.

Since the 1990s, the M'Zab Valley has undergone concerning transformations due to precipitous and fragmented urban growth, breaking with the traditional structure of the ksour. Excessive urban sprawl, motivated by urgency and land scarcity, has weakened the territory, particularly by encroaching on the palm grove, the green lung of the region.

The protected sector faces considerable pressure from administrative, economic, and social structures. This situation raises questions about the coherence between urban development and the preservation of ancestral heritage. The current state of the Valley is marked by a failure of the governance system, conflicts of interest between actors, and ineffective management tools. Added to this are the aging of ancestral buildings, uncontrolled urbanization, environmental degradation, and the worsening of natural risks.

Faced with these challenges, the priority objectives are: reconciling urban development and heritage preservation, improving the effectiveness of legal and technical tools, and implementing a governance model regulating relations between actors involved in the development and management of the M'Zab Valley.

All these aspects constitute inevitable paths of an approach that must address, in addition to urban expansion and sprawl operations, the political changes in the country and the advent of several global concepts, such as globalization, sustainability, and the improvement of the urban living environment through the initiation of citizen participation. These are, in the eyes of specialists, essential principles consolidating co-governance in the M'Zab Valley, depending on economic, social, and environmental aspects. This task seems very complex; it will require not only strong political support but also effective financial backing and unwavering adherence from civil society, for a better future benefiting the M'Zab Valley. It is with this perspective that local actors today have the advantage of being able to use good lessons, but in a lucid manner adapted to the various specificities of the Valley's vast territory.

At the end of this in-depth study on the governance of the M'Zab Valley, it should be emphasized that this work, far from being exhaustive, represents only a first foray into a highly complex domain. Governance, by its multidimensional and evolving nature, does not lend itself easily to definitive conclusions. The reflections and orientations presented in this research constitute a solid basis for understanding the specific challenges of the M'Zab Valley. Our ambition has been to highlight certain crucial issues while recognizing that many other questions deserve to be explored in future research. It is clear that the current governance system underpinning the Valley's heritage process requires a thorough revision. This overhaul, although indispensable, is shaping up to be a long-term process, requiring patience and perseverance. In the meantime, the Valley's protected sector continues to face considerable challenges, struggling to preserve its integrity in the face of multiple pressures.

Our aspiration is for this study to serve as a catalyst for increased awareness among decision-makers and stakeholders. We advocate for the adoption of a holistic approach in managing the heritage of the M'Zab Valley. This approach should be based on principles of co-participation and multi-stakeholder engagement, involving various actors at different stages of the heritage process. The ultimate goal is twofold: on one hand, to significantly improve the urban living environment of the Valley's inhabitants, and on the other hand, to bring sustainable solutions to the challenges it faces. This involves not only preserving the built heritage but also revitalizing cultural traditions, sustainable economic development, and protecting the region's unique environment.

In conclusion, this study aims to be a substantial contribution to the reflection on the future of the M'Zab Valley. It paves the way for a constructive dialogue between researchers, policymakers, local communities, and heritage experts. It is only through close collaboration and a shared vision that we can ensure the sustainability of this heritage jewel for future generations while responding to the legitimate aspirations of its current population.

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