

Nadjette BENAÏSSA^a, Faten GHANEMI^b

^aUniversity of Biskra (Algeria)

Department of Architecture, Built Environment
Resilience Laboratory (BERLAB)

e-mail: nadjette.benaissa@univ-biskra.dz

ORCID: 0009-0003-1021-0474

^bUniversity of Biskra (Algeria)

Department of Architecture, Built Environment
Resilience Laboratory (BERLAB)

e-mail: faten.ghanemi@univ-biskra.dz

ORCID: 0000-0003-0460-3856

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CHALLENGES AND PROSPECTS FOR PROTECTING ARCHAEOLOGICAL HERITAGE IN ALGERIA: A CASE STUDY OF THE ARCHAEOLOGICAL SITE OF TAHOUDA IN LIGHT OF LAW 98-04

Abstract: This study evaluates the effectiveness of Algeria's *Law No. 98-04* in protecting archaeological heritage through the case of the Tahouda site (ancient Thabudeos) in Biskra Province. Using legal analysis, historical contextualization, topographic survey, geophysical prospection, and field observation, the research identifies a persistent gap between the law's provisions and their implementation. Results show advanced material degradation, outdated documentation, weak monitoring, and fragmented institutional responsibilities. The study concludes that effective protection requires updated GIS-based inventories, clearer conservation guidelines, decentralised management, improved interministerial coordination, and stronger involvement of universities and local communities.

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INTRODUCTION

The preservation of cultural heritage is a critical concern for policymakers, especially in the face of threats from structural aging, unplanned urban expansion, and environmental degradation. In Algeria, heritage policy underwent a significant legislative shift with the adoption of *Law 98-04* on

the Protection of Cultural Heritage, which broadened the scope of protection beyond monuments to include tangible and intangible heritage within comprehensive mechanisms (*Loi 98-04* 1998). However, a persistent gap exists between this legislative ambition and its practical application.

Challenges include excessive centralization, institutional fragility, inadequate coordination between planning and heritage sectors, and a lack of specialized training and resources (*Loi 01-20* 2001; *Loi 06-06* 2006). These issues limit the effectiveness of heritage as an economic driver through tourism and hinder the execution of local protection projects. This research aims to examine the implementation of *Law 98-04*, specifically the archaeological site protection plans, at the Tahouda site. The central question is: Do the protection plans established under *Law No. 98-04* constitute an effective tool for safeguarding archaeological sites?

Scholarly work confirms that legislative strength alone is insufficient for effective cultural heritage management; implementation mechanisms, institutional coordination, and integration into spatial planning are paramount (Petrescu 2023). In the Maghreb, regional comparisons show that although Tunisia¹ and Morocco (*Law 22-80*, amended by 19-05) possess strong legal frameworks, they face similar challenges regarding resource limitations and inconsistent enforcement (Zhang 2022). These regionalized approaches, particularly Morocco's decentralized monitoring, offer valuable lessons for Algeria in interministerial coordination.

Algerian scholarship highlights specific shortcomings in the national context. Studies by Y. Chennaoui (2024) as well as Y. Chennaoui and L. Benali Aoudia (2017) emphasize the absence of clear operational tools. F. Hadji et al. (2023) and A. Dahdouh (2023) argue that vague legal requirements in *Law 98-04* lead to inconsistent interpretations and insufficient protection measures. C. Ornelas et al. (2023) stress the importance of engaging institutional stakeholders to tailor interventions to local contexts. Recurring themes include institutional fragmentation, weak enforcement, and a lack of unified national guidelines, which strongly align with the situation observed at the Thabudeos site. Addressing these challenges requires integrating traditional conservation methods with modern planning practices, grounded in international standards like the Venice Charter (ICOMOS 1964) and The Burra Charter (Australia ICOMOS 2013).

METHODOLOGY

This study employs a multidisciplinary approach, combining theoretical legal analysis with applied on-site investigation (Fig. 1). The study began with a detailed analysis of the Algerian legislative framework, specifically *Law No. 98-04 of June 15, 1998*, and its executive decrees (*Decree 05-443* 2005; *Decree 03-323* 2003), to clarify the legal foundations and institutional mechanisms for archaeological site protection. This was complemented by a review of national and international literature on protection mechanisms and implementation challenges. The archaeological site of Tahouda in Sidi Okba (Biskra Province) was selected as a case study due to its historical significance and vulnerability. Fieldwork included topographic surveying, geotechnical assessment, and Geophysical Investigation using Ground-Penetrating Radar (GPR) to identify subsurface anomalies. This deployment serves to triangulate the theoretical legal boundaries against the actual archaeological realities. The investigation was supplemented by visual analysis of aerial and historical imagery and direct site inspection data. This dual methodology evaluates the implementation of preventive conservation plans in situ and reveals discrepancies between legal prescriptions and actual practices, aiming to propose evidence-based solutions.

¹ https://www.kulturgutschutz-deutschland.de/SharedDocs/Downloads/DE/Staaten/Gesetze/Tundesien_Law94-35.pdf?__blob=publicationFile&v=2 (accessed 05.12.2025).

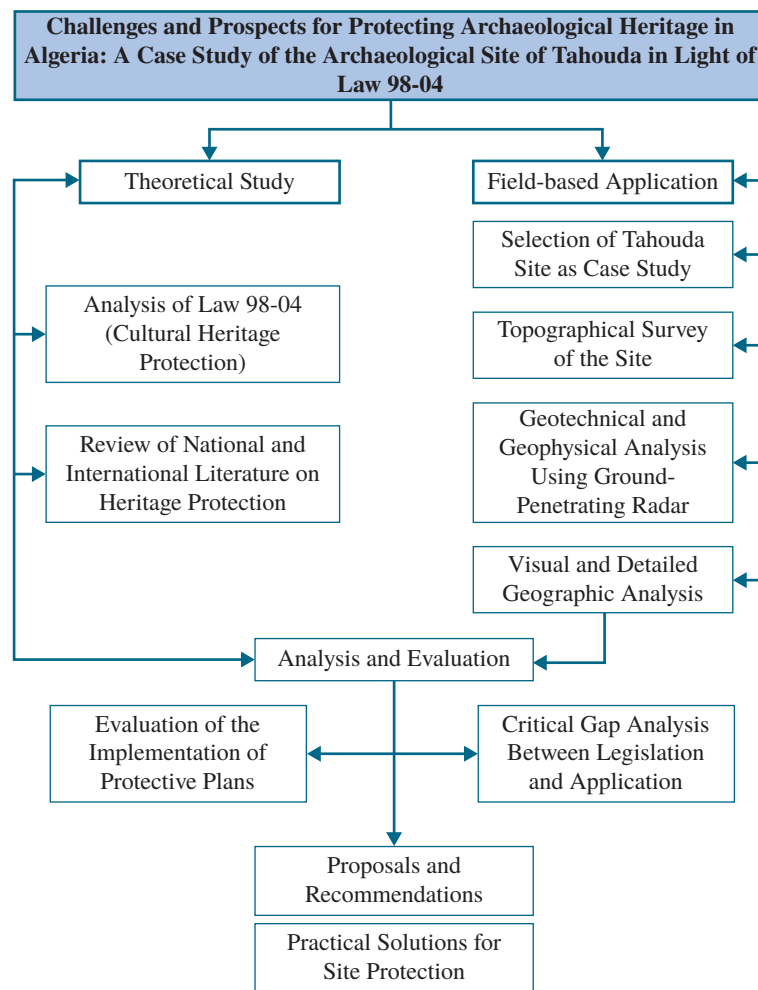


Fig. 1. Methodological framework of the study

Source: own elaboration.

Contents of Regulatory Laws for the Protection of Heritage in Algeria (Regulatory Framework and Governance Gaps)

Law No. 98-04 of June 15, 1998, on the Protection of Cultural Heritage in Algeria aims to define cultural heritage as a fundamental component of the nation's identity and to ensure its protection, preservation, and enhancement. This heritage includes all movable and immovable cultural property, whether owned by the state or individuals, dating back to successive civilizational periods from pre-history to the present day, in addition to intangible cultural property resulting from social interactions and collective and individual creativity. Heritage is divided into three categories: real property, such as historical monuments, archaeological sites, and urban areas; movable property; and intangible property, each subject to distinct legal mechanisms of protection (Mahmoudi 2020).

Immovable heritage may be protected through several legal instruments, including inclusion in the additional inventory, classification, or designation as a protected sector, each of which entails different levels of constraints, procedures, and monitoring obligations (Meskine 2023).

Historical monuments are defined as architectural or artistic structures that bear witness to civilizations or historical events, and include religious, military, civil, or industrial buildings, as well as prehistoric sites and rock paintings. Archaeological sites are legally recognized as built or unbuilt

spaces that bear witness to human activity or interaction with nature and have historical, religious, or scientific value.

The law imposes strict administrative controls, requiring prior authorization from the Ministry of Culture before undertaking any restoration, construction, or alteration work on classified properties or within their protection zones, including the installation of electricity, water, gas, telephone, and other utility networks (Gharbi 2021). Planning authorities must also obtain approval from the competent cultural bodies before issuing building permits or authorizing land subdivisions within these protected areas (Gharbi 2021). The Protection and Enhancement Plan (PPMV) defines binding rules governing planning, construction, engineering works, and permissible activities within the perimeter of classified sites, ensuring the preservation of their architectural integrity and historical significance (Meskine 2023).

Various Algerian studies have indicated governance challenges in the field of heritage protection and have shown that responsibilities are fragmented between the Ministry of Culture, municipalities, and urban planning services (Fig. 2). Therefore, implementation is weak: preventive conservation plans (PPMV) are rarely prepared or applied, local authorities often lack the necessary structured expertise to assess impacts on built heritage, and coordination remains minimal between national actors and local ones (Fig. 3).

In Tunisia, regional heritage units that help implement national policy at the local level, despite territorial disparities, support the 1994 heritage code. In Morocco, *Law 22-80* as amended by *Law 19-05* introduced reinforced sanctions, improved monitoring mechanisms, and greater involvement of local authorities.

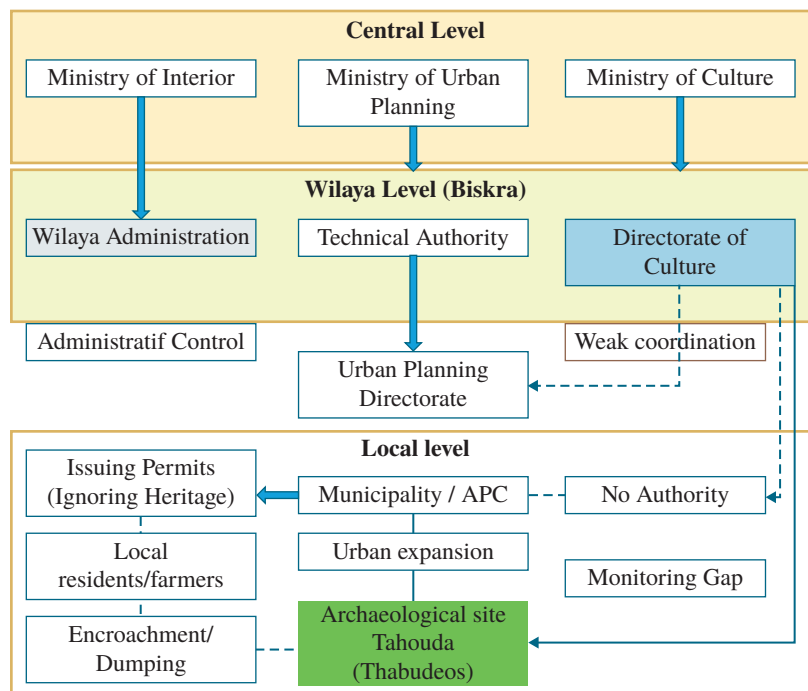


Fig. 2. Governance structure and relations (Algerian context)

Source: own elaboration.

Compared to these systems, the Algerian framework remains highly centralised, with limited regional presence of specialised heritage services. This centralisation contributes to implementation gaps, particularly in remote or peripheral regions such as Biskra. At Tahouda, these shortcomings

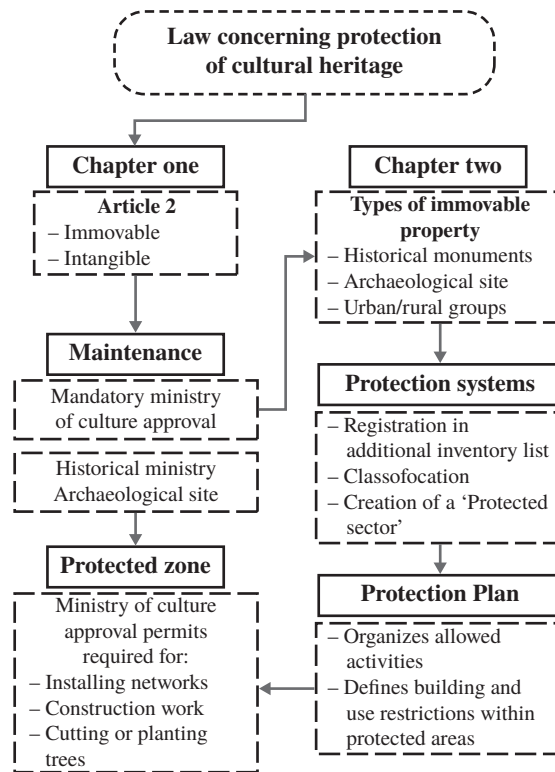


Fig. 3. Diagram of the content of regulatory laws for heritage protection in Algeria

Source: own elaboration.

manifest in the absence of regular monitoring, lack of site management staff, and uncontrolled development within the protection buffer.

CRITICAL REVIEW OF THE LAW 98-04

The examination of the 98-04 Law’s content reveals some weaknesses that are summarized as follows with a focus on the set of previously selected and presented articles. The current legislative and regulatory framework suffers from several critical shortcomings. Firstly, there is a lack of clear operational criteria and detailed thresholds for classification or interpreting “exceptional value”, and the law makes no explicit reference to priority categories, such as endangered earthen heritage. Moreover, there is an absence of methodological standards for buffer-zone mapping or digital/GIS integration, resulting in protection zones that are not effectively tied to broader urban planning documents. Similarly, the National Inventory of Cultural Property (INPC is not regularly updated), nor is there an obligation for modern documentation methods, such as 3D mapping or geophysical prospection.

On the administrative and operational front, issues stem mainly from over-centralization. Approval procedures are excessively centralized, causing significant delays and resulting in weak coordination with related sectors like urban planning, agriculture, and environment. This over-centralization is further evidenced by the lack of permanent staff assigned to sites. Furthermore, public inquiries are rarely conducted, and there is no clear mechanism for conflict resolution or integration with cadastral offices, leading to pervasive ambiguity regarding ownership. While prohibitions exist, there is no clear enforcement mechanism: sanctions are generally too low to deter violations, there are no

effective administrative penalties (e.g., stop-work orders), and no dedicated actor is clearly identified or responsible for field monitoring or emergency interventions. This situation is aggravated by the absence of technical manuals/guidelines, especially for traditional earthen architecture, and a lack of specific budget allocation for periodic maintenance.

Location of the study area

The municipality of Sidi Okba is located in the southeast of Biskra Province, 18 km away from the provincial capital. It is bordered to the north by the municipality of Chetma, to the west by the municipality of Biskra, to the south by the municipality of El Haouch, and to the east by the municipality of Ain Naqa.

The area of Sidi Okba municipality is 240 km², and its population was 33,509 according to the 2008 census². Most of the population occupies the main settlement of the municipality due to its public facilities and services. These include the shrine and mosque of Al-Fatih Uqba ibn Nafi and the Islamic complex, which demonstrate the region's position as a religious, cultural, and tourist center.

The secondary settlement of Tahouda is located north of the municipality of Sidi Okba, and the archaeological site of Tahouda is located on the secondary road leading to this settlement, which runs along the road linking Sidi Okba and Seriana. To the east of the site are vacant lands, palm groves, and the aforementioned secondary road. To the west is the health complex, some rural dwellings, and palm groves. To the south are palm groves. To the north are palm groves, scattered dwellings, and a tunnel. Tahouda, formerly the Roman fortress of Thabudeos, is located 400 kilometers south of Algiers and 17 kilometers northeast of Biskra. It is one of the forts of the southern Roman defensive line in North Africa. Thabudeos formed part of the wider defensive system known as the *Fossatum Africae* and was strategically connected to the fortress of Gemellae, both contributing to the control and surveillance of the Roman frontier (Fig. 4). It is one of the forts of the southern Roman defensive line in North Africa (Fig. 5).

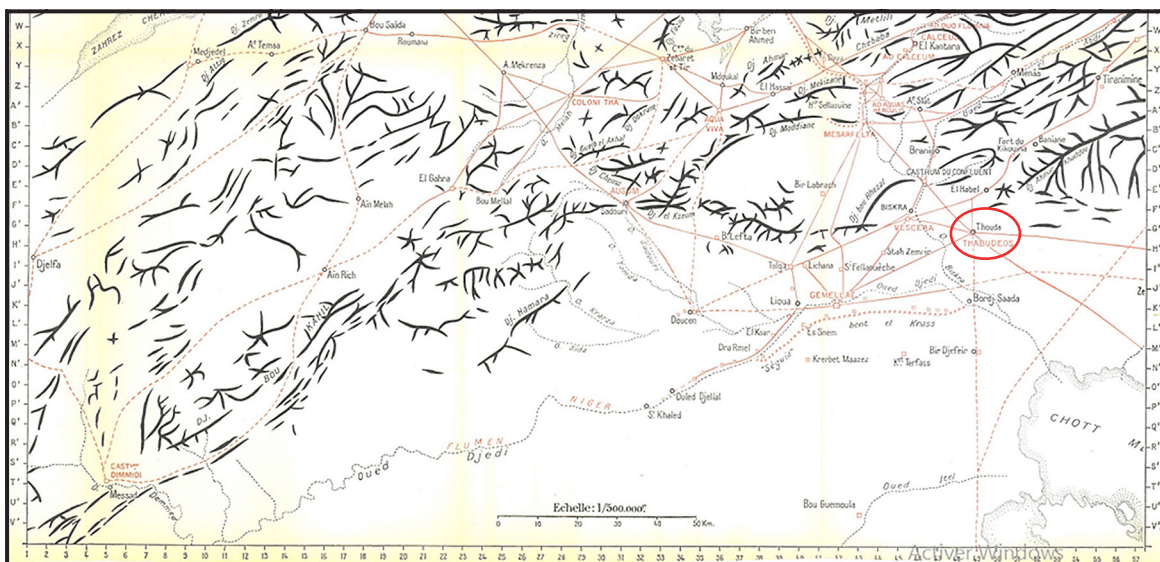


Fig. 4. Localisation of Tahouda (Thabudeos) on the Roman Limes

Source: J. Baradez, 1949, *Fossatum Africae. Recherches Aériennes sur l'organisation des confins Sahariens a l'Epoque Romaine*, Arts et Métiers Graphiques, Paris.

² https://www.ons.dz/collections/w07_p1.pdf (accessed: 05.12.2025).

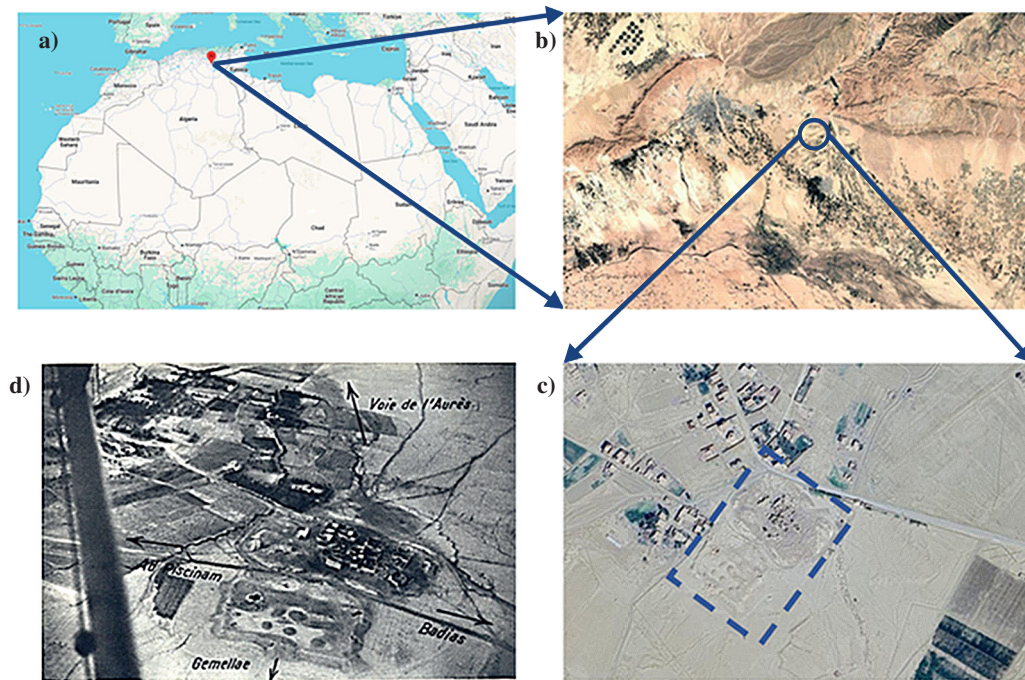


Fig. 5. Location of study area: a–c) Tahouda location map, d) an aerial photo of the Tahouda region dating back to the first half of the twentieth century

Source: own elaboration (a–c); J. Baradez, 1949, *Fossatum Africae. Recherches Aériennes sur l'organisation des confins Sahariens a l'Epoque Romaine*, Arts et Métiers Graphiques, Paris (d).

The study area was defined as the Castrum or Roman Fort, the ruins of mud buildings, and the mosque. To the east, vacant land, palm groves, and the aforementioned secondary road border the two areas. To the west, the health complex, some rural dwellings, and palm groves border them. To the south are palm groves, and to the north are palm groves with scattered houses and a tunnel. The following coordinates define the topography of the study area: Lat/Long: N 34°48'14.2" – E 5°53'25.9"; with an estimated area of 16.21 hectares, and the area of the associated protected zone is estimated at 48.64 hectares (Meftah et al. 2022).

Historical Overview of the Study Area

Numidia became a Roman province in 46 BC and experienced notable prosperity under Roman administration. “Viscera Nathio” (Biskra) is cited among the territories conquered by Cornelius Balbus around 21 BC, and the region contains more than 200 archaeological sites from various historical periods (Pizzaferrì 2011).

The city of Thabudeos enjoyed considerable importance and developed a well-organized urban structure. It formed part of the extensive Roman frontier system, a line of fortifications that marked the southern boundaries of the empire (Hadji 2015). The archaeological site of Tahouda is one of Algeria's most significant historical sites, located approximately 36 km northwest of the present-day city of Biskra. Tahouda can be viewed as a historical palimpsest that reflects the succession of civilizations in North Africa.

The following section presents a diachronic analysis of the city's development through various historical strata. The earliest occupation of the Tahouda region predates Roman control and is associated with Amazigh (Berber) communities. Although no urban center is attested for this phase, the

area likely functioned as a meeting point for local groups and as a node along trade routes linking the Mediterranean hinterland to the Sahara. Its position on the desert margin and its access to reliable water sources underline its early strategic significance (Julian 2011).

Roman expansion into North Africa brought a profound transformation of the site, renamed *Thabudeos*. Incorporated into the southern *limes*, it developed into a regional military and commercial center (Khouas et al. 2017). A *castrum* housing detachments of the Third Augustan Legion was constructed, characterized by a rectilinear plan, fortified walls, and watchtowers (Fig. 6). Roman engineers also installed a sophisticated hydraulic system comprising aqueducts and reservoirs, enabling effective water management in an arid environment. Urban development accompanied these investments, marking the evolution of the site from a fortified outpost into a structured settlement. Religious life likewise diversified, with early Christian structures appearing alongside traditional Roman cultic spaces (Crapper et al. 2022).

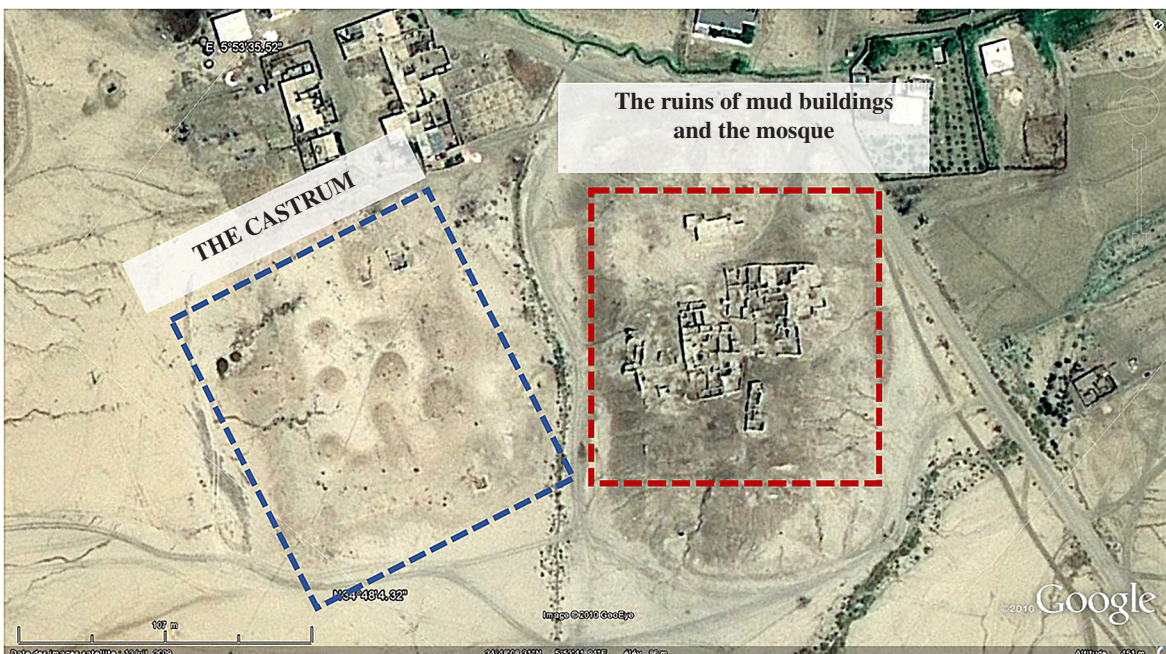


Fig. 6. Delimitation of the study area showing the castrum, the ruins of mud buildings, and the mosque
Source: own elaboration based on Google Maps.

During the Byzantine period, the site experienced a phase of reconstruction linked to Justinianic efforts to restore imperial authority. Fortifications were repaired and defensive installations reorganized, reflecting attempts to maintain regional stability after the decline of Western Roman power (McKenna 2011).

The Islamic conquest in the late 7th century initiated a gradual administrative and cultural transition. Thabudeos retained its role as a minor trading center during the early Islamic period, yet progressively lost prominence as new political and urban centers emerged in the region. This process illustrates the shift from an older settlement structure toward a reconfigured regional landscape (Khouas et al. 2017).

Previous Historical Studies of the Archaeological Site

The archaeological site of Tahouda occupies a hill now overlaid by the modern village. Visible remains of the ancient defensive system persist, particularly along the northeastern slope. To the

southwest, at the foot of the hill, a trapezoidal enclosure—measuring nearly 100 m along its main façade—can still be identified. Its central gate once connected the *castrum* to the Roman road leading from Gemellae.

The first documented excavation was conducted in 1899 by Captain Toushar. Although limited in scope, it focused on the area later recognized as the Roman bath complex. The investigation revealed a mosaic pavement with floral motifs in the *frigidarium*, pottery fragments, drainage channels, and brick-built hypocaust conduits associated with the *caldarium* heating system.

In his *Atlas Archéologique de l'Algérie* (1911), S. Gsell provided one of the earliest systematic descriptions of Thabudeos. He noted that the modern toponym “Tahouda” represents a phonetic evolution of the ancient name. He also recorded significant architectural remains north of the present-day village, extending toward Khirbet Attia, including carved stone walls and dispersed architectural fragments (Sahraoui 2010).

Subsequent observations by Brades documented large carved stones and cylindrical column shafts reused within the modern village, identifying them as remnants of ancient Thabudeos. He further noted that sections of the contemporary enclosure incorporated Roman ashlar masonry, suggesting that parts of the original rectangular castrum layout remained perceptible (Amraoui 2020).

Brades later identified the Thabudeos camp on the southern slope of the hill. The camp displays a hexagonal plan, approximately 118 m in length and 100 m in width along its parallel sides, with a 65 m southern façade. The outer wall, about 1.90 m thick, was reinforced by four corner towers, two of which remain visible. Brades reconstructed a schematic plan based on these observations and distinguished construction phases reflecting Roman interventions from the Trajanic period through the Byzantine era. He emphasized that the Thabudeos camp formed part of a wider fortified complex extending across the high plateau where the modern village stands—an elevated area that could only have been controlled once the site was securely fortified.

The establishment of the camp responded to strategic military imperatives in Numidia. Although no direct archaeological or historical evidence identifies the specific legate responsible for its construction, the camp is generally associated with broader Roman policies of frontier reorganization during the High Empire. Its role was to secure the eastern slopes of the Aurès and to control access routes from the southern plains. In this capacity, it functioned in coordination with the forts of Henshir Besryani, Naqrin, and Badis, all linked by a major military road that facilitated communication and helped close routes used by raiding groups.

Diagnosing the Condition of the Archaeological Site of Tahouda

The topographic survey and geotechnical investigation yielded essential data regarding the physical characteristics of the study area. The predominantly flat terrain and clay-rich soil facilitate archaeological prospection and field visibility. Ground-penetrating radar (GPR) surveys revealed subsurface anomalies that likely correspond to buried archaeological features.

Topographic elevation data show that the area is generally flat, except for the northern elevation that hosts the remains of mud-brick dwellings and a small mosque. The soil throughout the site is predominantly clayey which affects water retention and structural stability.

The geotechnical work conducted by the South Public Works Laboratory, using a SIR-20 GSSI system equipped with a 200 MHz antenna (8 meters penetration depth), enabled the identification of multiple subsurface anomalies. These anomalies were categorized into two main types:

- Type 1: circular anomalies, possibility corresponding to collapsed column bases or column drums,
- Type 2: linear anomalies, which likely indicate the presence of buried wall foundations.

The first category corresponds to Roman architectural remains, primarily associated with the fortress structures. Such fortress was typically constructed to secure open settlements located in the plains, similar to the well-known example of the Tamugadi camp. The most notable surviving elements include sections of enclosure wall, corner towers, and the remains of the Roman baths. Architecturally,

the main fortress follows a rectangular configuration, with the northern wall displaying seventeen interior buttresses and two opposing gates: a primary gate to the south and a secondary one to the north).

These features support the strategic function of Thabudeos within the southern segment of the *Fossatum Africae*, where it operates as a complementary defensive system with the nearby fortress of Gemellae. Both sites controlled transversal routes linking the Saharan corridors with the Aurès Mountains, which explains their similar military role and architectural configuration.

The Thabudeos camp is situated on the southern slope of the hill that host the present-day village of Tahouda. This site exhibits a hexagonal ground plan measuring approximately 118 meters in length and 100 meters across its parallel sides. Four of its corners are reinforced with square towers, and the main getaway is positioned at the center of the southwestern facade. Archaeological evidence suggests the presence of internal structures that remain unexcavated because flood-borne sediments accumulated inside the enclosure, containing thousands of pottery fragments. In the northern corner, the remains of a structure likely the baths complex described in the Archaeological Atlas were identified, including a main hall measuring approximately 6.20×14 meters.

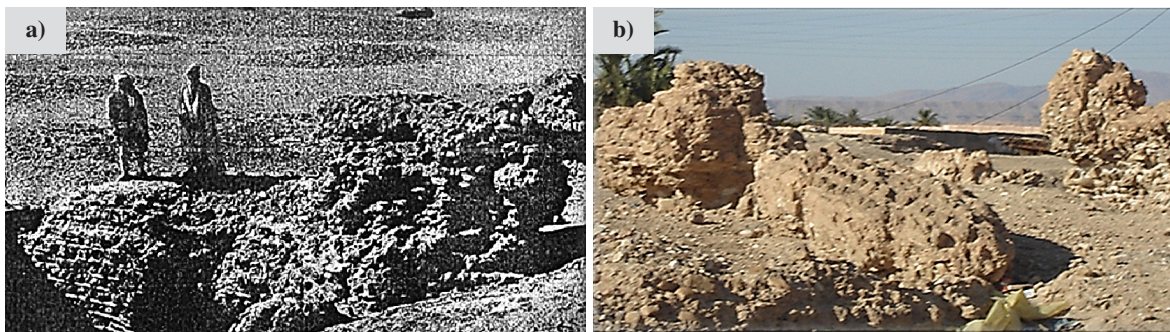


Photo 1. a) Remains of the camp walls (1950's), b) Remains of the camp walls (2009)

Source: photo by J. Baradez (1949) (a) and N. Benaïssa (2009) (b).

The outlines of the walls and corner towers, along with many of the architectural specifications, correspond closely to the descriptions and sketches published by J. Baradez (1949) (Photo 1a), whose work remains the principal reference for the early documentation of Thabudeos.

The surviving architectural remains within the protected perimeter have been partially conserved to maintain the cultural continuity of the site. Minor debris from earlier excavation campaigns was removed allowing several structural elements to be re-identified. This allowed the bath complex visible, which facilitated the partial reconstruction of its architectural layout. It also made it possible to outline the initial plan of the northwest tower (Photo 1b) and to document the northwestern curtain wall belonging to the final occupation phase of the camp.

The exposed Roman wall segments, built of cut stone, are heavily deteriorated; many blocks have disintegrated due to salt crystallization caused by rainwater infiltration. Most Roman-period structures lack roofing and were reconstructed with mud bricks superstructure, which has accelerated their decay under rainfall (Photos 2a and 2b). In contrast, the buried Roman walls remain relatively well preserved, but the mud dwellings are in an advanced state of deterioration (Photo 2c). This deterioration of exposed walls is mainly reflected in differential settlements; erosion was observed at the top of the wall, and at their bases, has progressively weakened their structural stability, leading in some cases to partial collapse. Additional erosion of the stone blocks caused by harsh climatic conditions has further accelerated the degradation. Moreover, parts of the archaeological site have been misused as an uncontrolled waste disposal area. This advanced erosion acts as a diagnostic example of the legislative

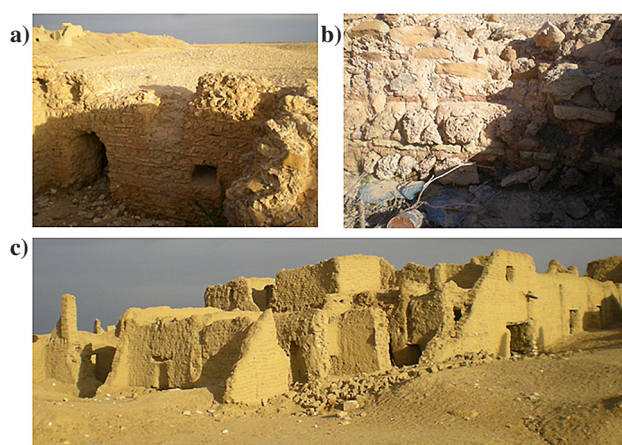


Photo 2. a–b) The deteriorating condition of the Roman stone walls, eroded by salts dissolved in rainwater,
 c) The deteriorating condition of mud houses
 Source: photo by N. Benaissa (2015).

void: the Law lacks specific technical guidelines for vulnerable materials like adobe, leaving them exposed to irreversible decay.

Archaeological investigations, supported by the results of the South Public Works Laboratory and historical analyses, confirmed the presence of the remains of the old hilltop settlement, including collapsed mud-brick houses, large polished stone blocks, column fragments, and a partially filled Roman well, approximately 46 meters deep.

Regulations for the Tahouda Archaeological Site

The site was divided into two zones according to the legal and natural criteria governing archaeological areas (PPMV of Tahouda). The first zone is the officially designated protected area, covering 1,716.2 hectares and enclosed by a defensive perimeter wall. This protected zone comprises the hilltop containing the mosque and the well, the semi-buried corners of the Roman camp enclosure, a dispersed or entirely buried archaeological vestiges and historical mud-brick dwellings (dating to the Islamic period) which are protected as part of the subsequent cultural layers.

The second zone is the buffer protection area, forming a 200-meter-wide strip surrounding the sides. Regulations prohibit the removal of soil, debris, or any historical material without official authorization, in order to safeguard the archaeological remains and maintain site cleanliness. Periodic cleaning operations were conducted to prevent the accumulation of waste within and around the site.

A set of specific recommendations was formulated for this site in accordance with the objectives of the protection and restoration plan and its integration within the surrounding environment.

Tahouda is classified as a site of exceptional heritage significance, encompassing the remains of the Roman camp (semi-buried wall corners), the hilltop mosque and shrine, the Roman well at the hill's edge, the ruined mud-brick dwellings, and the scattered or buried architectural fragments detected by georadar. These recommendations included:

- **Restoration principles:** All restoration works on the Roman remains must respect their historical value, ensuring that interventions preserve authenticity and avoid any technique that may alter the site's heritage integrity.
- **Architectural compatibility:** New constructions in the surrounding area must adhere to traditional architectural forms, ensuring façade treatments that respect the site's historical character.

- **Heritage preservation priority:** Any restoration must follow the principles of recognizability, reversibility, material compatibility, and minimal intervention, in accordance with The Venice Charter (ICOMOS 1964), the *The Nara Document on Authenticity* (ICOMOS 1994), and The Burra Charter (Australia ICOMOS 2013). Reconstructed elements should remain distinguishable and must not distort the monument's historical reading.
- **Continuous maintenance:** Regular monitoring by qualified technicians and specialized design offices is essential for ensuring the long-term preservation of the site. Any proposed vegetation near the structures must receive prior approval.
- **Urban development regulation:** Any development project near the site must be reviewed by a multidisciplinary committee—including archaeologists, planners, and representatives of the Ministry of Culture—to ensure full protection during construction activities.
- **Public awareness:** Informational signage should be installed to promote understanding of the site, and no constructions or visual barriers should obstruct key view corridors, particularly along the axis leading to Sidi Okba Road.

Despite the clarity of these recommendations, most have not been implemented, particularly those relating to the restoration of monuments in ways that preserve authenticity and to the use of original construction materials and techniques.

At the field level, the archaeological site of the Ancient Thabudeos highlights that the 98-04 Law content has not been strictly applied in terms of documentation and/or sitting actions. The in situ outcomes could be listed as follows:

- The general classification doesn't reflect the site's complexity. No detailed mapping or vulnerability classification corresponds to the law's expectations.
- The buffer zone exists only on paper. There are no physical markers or cadastral integration. New subsurface anomalies identified by GPR lie outside the official perimeter, exposing key features to risk.
- The INPC entry is outdated by 15+ years. The documentation lacks GPR results, high-resolution analysis, and any conservation plan.
- Many adjacent landowners are unaware of restrictions. Illegal construction occurs without consequence.

CONCLUSION

The results of this study, based on the analysis of the Tahouda archaeological site, reveal a clear gap between the legal frameworks for heritage protection in Algeria and their practical implementation on the ground. Although *Law No. 98-04* provides a comprehensive legal basis for heritage protection, the field survey revealed several shortcomings, including deterioration caused by neglect, the absence of preventive maintenance, and the use of parts of the site as an uncontrolled waste dump, all of which reflect weak protection and monitoring mechanisms. Comparing these findings with the regulatory provision also reveals deficiencies in implementation and oversight, as well as weak coordination between the responsible institutions.

The study concludes with several key recommendations, including creating a local executive body specialized in archaeological site management, with administrative autonomy and sufficient funding to supervise protection and maintenance plans. It also recommends developing a unified national guide for the implementation of *Law No. 98-04*, specifying technical procedures for preventive interventions and restoration priorities according to risk levels. It emphasized the importance of strengthening institutional coordination between the Ministries of Culture, Planning, Environment, and Tourism through joint committees responsible for developing integrated plans. It also highlighted the need to

involve universities and research centers in preparing technical studies and building capacities in the fields of restoration and inventory.

Socially, the study highlights the need for awareness programs for to encourage residents to participate in heritage protection and prevent inappropriate uses of the site. It also proposed rehabilitating the site for cultural tourism under strict conditions that ensure the preservation of its historical value, including creating visitor trails and informational signage.

Overall, these recommendations aim to ensure integrated, field-based protection of built heritage through institutional coordination, technical rehabilitation, and community participation. They also seek to bridge practical gaps and strengthen synergy between institutional and societal frameworks to ensure the long-term sustainability of Algeria's built heritage.

These recommendations aim to achieve integrated, on-site protection of built heritage by strengthening institutional coordination, improving technical rehabilitation measures, and promoting community participation, all within a strategic and sustainable national framework. They not only reinforce the legal protection system but also address practical shortcomings by improving coordination between institutional and community actors, thereby supporting the long-term sustainability of built heritage in Algeria.

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