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Tiddis: Urban Symbiosis between Numidian Morphogenesis and Roman Ordering

Tiddis : symbiose urbaine entre morphogenèse numide et ordonnancement romain

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Abstract:

Perched atop the *Rhumel* Gorges in Algeria, the ancient city of Tiddis presents an exceptional case study of Numidian and Roman urban planning integration. This multilayered archaeological site demonstrates how successive civilizations adapted spatial organization to challenging topography and defensive requirements while preserving cultural identity. In our era of globalized urban homogenization, Tiddis raises critical questions about balancing heritage preservation with sustainable accessibility for future generations.

Archaeological investigations since the 19th century reveal complex historical stratification. The Numidian occupation phase is characterized by troglodytic dwellings, funerary *bazinas* and an organic street network following the rugged terrain. Roman conquest brought profound transformations: a *cardo maximus* imposed structural order, while the construction of baths, temples, and an ingenious hydraulic system demonstrated Roman technical standards. Yet this Romanization never completely erased indigenous traditions, as evidenced by persistent Numidian pottery techniques and leatherworking practices in local workshops.

The research methodology combines three approaches: descriptive (architectural documentation), quantitative (structural analysis), and exploratory (sensory immersion). This triangulation reveals how the city harmonized seemingly opposed urban visions, Numidian organic adaptation versus Roman geometric rigor.

Beyond archaeological significance, Tiddis presents contemporary challenges. Listed as Algerian national heritage since 1992, the site requires urgent conservation measures against erosion and unregulated tourism. Potential valorization strategies include educational circuits, promotion of traditional crafts, and digital technologies to enhance visitor experience. These measures should align with broader sustainable development goals that respect both cultural heritage and local communities.

Recent scholarship reinterprets North African Romanization not as cultural imposition but as creative hybridization. At Tiddis, Numidian traditions persisted in construction techniques, crafts, and certain cults while integrating within Roman frameworks. This perspective transforms our understanding of ancient cultural dynamics and suggests new approaches to appreciating pre-Roman Maghreb heritage.

Ultimately, Tiddis transcends conventional archaeological categorization, emerging as a living laboratory of urban resilience, intercultural dialogue, and sustainable heritage management. Its study calls for deeper investigation of Numidian urbanism, long overshadowed by more spectacular Roman remains. International recognition, potentially through UNESCO World Heritage nomination, could safeguard this unique testimony while affirming its universal value.

Keywords: Ancient city; hybridization; Numidian; Roman.

Résumé :

Perchée au sommet des gorges du *Rhumel* en Algérie, l'ancienne cité de Tiddis offre un cas d'étude exceptionnel d'intégration de l'urbanisme numide et romain. Ce site archéologique stratifié démontre comment des civilisations successives ont adapté l'organisation spatiale à une topographie difficile et à des exigences défensives, tout en préservant l'identité culturelle.

Les investigations archéologiques menées depuis le XIX^{e} siècle révèlent une stratification historique complexe. La phase d'occupation numide se caractérise par des habitations troglodytiques, des bazinas funéraires et un réseau viaire organique épousant le relief accidenté. La conquête romaine a introduit des transformations profondes : un *cardo maximus* a imposé un ordre structurel, tandis que la construction de thermes, de temples et d'un ingénieux système hydraulique illustrait la maîtrise technique romaine. Pourtant, cette romanisation n'a jamais complètement effacé les traditions indigènes, comme en témoignent la persistance des techniques de poterie numide et des pratiques de travail du cuir dans les ateliers locaux.

La méthodologie de recherche combine trois approches : descriptive (documentation architecturale), quantitative (analyse spatiale et structurelle) et exploratoire (immersion sensorielle). Cette triangulation révèle comment la cité a su harmoniser des visions urbaines apparemment opposées adaptation organique numide versus rigueur géométrique romaine.

Au-delà de sa signification archéologique, Tiddis soulève des enjeux contemporains. Classé patrimoine national algérien depuis 1992, le site nécessite des mesures urgentes de conservation face à l'érosion et au tourisme non réglementé. Les stratégies de valorisation incluent des circuits pédagogiques, la promotion des métiers traditionnels et l'usage de technologies numériques pour enrichir l'expérience des visiteurs. Ces actions doivent s'inscrire dans une perspective de développement durable respectant le patrimoine culturel et les communautés locales.

Les recherches récentes réinterprètent la romanisation nord-africaine non pas comme une simple imposition culturelle, mais comme une hybridation créative. À Tiddis, les traditions numides ont persisté dans les techniques constructives, les artisanats et certains cultes tout en s'intégrant aux cadres romains. Cette lecture renouvelle notre compréhension des dynamiques culturelles antiques et ouvre de nouvelles pistes pour la valorisation du patrimoine maghrébin préromain.

En définitive, Tiddis dépasse les catégories archéologiques conventionnelles pour apparaître comme un véritable laboratoire de résilience urbaine, de dialogue interculturel et de gestion durable du patrimoine. Son étude appelle à un approfondissement des recherches sur l'urbanisme numide, longtemps éclipsé par les vestiges romains plus spectaculaires. Une reconnaissance internationale, notamment via une inscription au patrimoine mondial de l'UNESCO, permettrait de sauvegarder ce témoignage unique tout en affirmant sa valeur universelle. Entre passé et présent, entre traditions locales et influences globales, Tiddis continue d'enseigner comment une ville peut évoluer sans sacrifier son identité profonde.

Mots-clés : ville antique ; hybridation ; numide ; romain.

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Introduction:

Algeria possesses an exceptionally rich yet unevenly documented archaeological heritage. Among its major sites, Tiddis (*Castellum Tidditanorum*) occupies a singular place as an inland city whose long urban life bridges pre-Roman Numidian adaptation, and Roman ordering. Over the past century, research on North African urbanism has predominantly focused on coastal and monumental centres, leaving upland towns such as Tiddis marginal in the narrative of Roman Africa (Berthier, 2000; Amraoui, 2018). Yet the city's extraordinary preservation of pre-Roman forms terraced dwellings, funerary *bazinas,* and a highly adapted street network offers rare insight into how indigenous planning responded to topography and social organisation before the arrival of imperial norms (Berthier, 1991; Gsell, 1898).

At the same time, Roman colonisation across the Maghreb has traditionally been interpreted through a unidirectional "*Romanisation*" paradigm, portraying local traditions as erased or assimilated. Recent scholarship questions this view, suggesting that cultural contact often produced negotiated hybridization rather than simple substitution (Drici, 2021). Tiddis appears as a key testing ground for this new perspective because its Roman layer baths, sanctuaries, *cardo maximus* was not imposed on a blank slate but rather integrated into a robust Numidian morphological framework. Understanding this process fills a critical gap in the literature, balancing narratives of imperial control with those of local resilience and creativity.

The central research question of this study is therefore: How can a city integrate an imported rational urban model without severing its own morphological and social memory? Based on preliminary observation, we hypothesise that the pre-Roman urban fabric of Tiddis conditioned the later Roman layout and that so-called Romanisation was in fact a negotiated and selective process rather than complete acculturation.

Our objectives are twofold: first, to reconstruct the long-term logic of urban formation at Tiddis by combining archaeological, epigraphic, and spatial evidence; second, to draw practical lessons for the sustainable management and interpretation of multi-layered heritage sites, ensuring accessibility without sacrificing historical depth.

Methodologically, the study triangulates descriptive documentation (architectural drawings and archival surveys, including those by Berthier, 1991; Berthier, 2000), quantitative spatial analysis (street hierarchy, density mapping, topographic modelling with URBACO 2012 data), and exploratory sensory fieldwork (on-site observation, movement paths, perception of carved dwellings). Such a combined approach bridges rigorous measurement with lived experience, echoing Leroi-Gourhan's concept of the "archives of the soil."

By articulating a nuanced case of cultural and spatial negotiation, this paper contributes to both historical knowledge and present-day heritage debates. Tiddis becomes not merely a provincial outpost but a model of urban resilience, challenging reductionist colonial narratives and offering strategies for conservation that respect layered identities while opening the site to future generations.

1. Geographical and Historical Framework

1.1Geographical Setting:

Tiddis, known in Latin sources as Castellum Tidditanorum (I.L.Alg., II, 3589, 3591, 3604; A.E., 1969–70, 393), is located approximately 20 km northwest of Constantine, on the road leading towards Jijel. The site occupies an extensive limestone plateau overlooking the deep gorges of *Wadi Rhumel*, covering nearly 40 hectares, which makes it one of the largest Numidian mountain cities that remained continuously inhabited throughout the Roman period.

Tiddis enjoys a strategic location on a rocky elevation of about 700 metres above sea level, dominating the fertile hinterland of Constantine's inner coast and controlling the natural passes between the plain of *El-Hamma* and the coastal front of Jijel. This position was by no means accidental; it reflects both defensive and commercial choices, as the surrounding rocky slopes offered natural protection, while direct access to the coastal strip ensured a steady flow of resources and trade networks through time (Berthier, 1991; Amraoui, 2018).

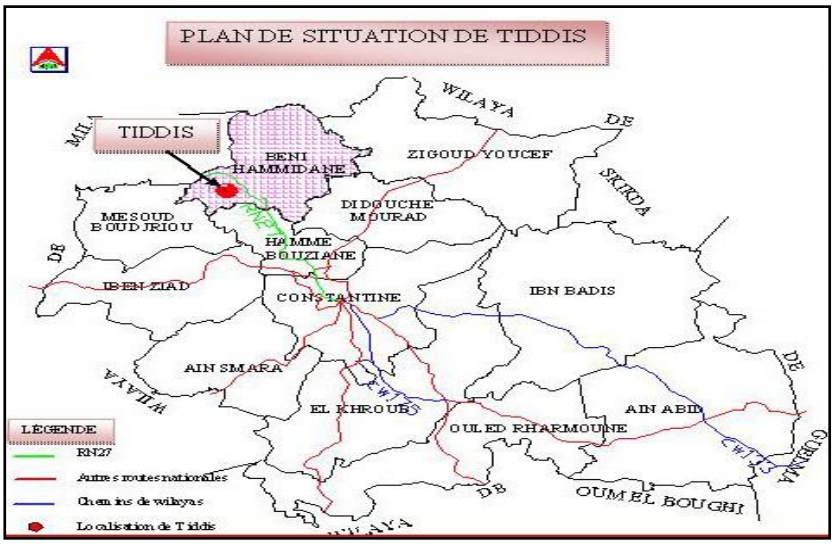
From a geomorphological perspective, Tiddis belongs to Miocene limestone formations interspersed with fractures and joints caused by ancient tectonic activity. This rocky composition enabled the carving of dwellings and storage spaces directly into the mountain, creating a unique urban typology that combines building and excavation. Recent studies (URBACO, 2012) have shown that the terraced nature of the plateau imposed a particular urban model, in which neighbourhoods are distributed across successive levels connected by narrow stairways and sloping alleys instead of the straight streets characteristic of Roman cities in the plains.

This rugged environment contributed to the formation of an organic urban nucleus based on adaptation rather than resistance to topography. The earliest dwellings were carved within the slopes and partly hollowed into the rock, whereas the upper terraces were later reserved, during the Roman period, for public buildings including the *forum*, baths and temples on relatively level surfaces. This spatial hierarchy illustrates continuity in urban logic, where the Romans maintained the structural principle of vertical gradation established by the Numidians, revealing an inherited rather than disruptive urban interaction. Such an adaptive pattern expresses what may be termed "Numidian Urban Intelligence", a principle grounded in the use of nature to meet living and functional needs without entirely subduing it (Leveau, 2019: 557–559).

Moreover, Tiddis has a Semi- Mediterranean mountain climate, with annual rainfall ranging between 500 and 700 mm, which allowed limited agricultural activity on the lower slopes. The inhabitants relied on a simple system of rainwater collection through rock-cut channels and internal cisterns, a system later developed by the Romans into a more sophisticated hydraulic infrastructure.

In light of the above, it is evident that the geographical factors of Tiddis were not merely a natural backdrop but an active structural element in the city's evolution through the ages. The rugged topography imposed a mode of urban life founded on gradation and urban resilience, making Tiddis a distinctive example of a city that succeeded in transforming the rigours of geography into a unique architectural and urban identity.

Figure1:
Geographical location map



. Source: Expertise of the Constantine group and the SDRA
(road and highway master plan).

1.2 Historical Background:

The site of Tiddis has been the subject of numerous archaeological surveys and excavations since the nineteenth century. The earliest campaigns date back to 1862, and were later continued between 1941 and 1973 under the supervision of André Berthier, who sought to reconstruct the city's urban fabric and identify the major stages of its development (Berthier, 2000: 23–30).

Berthier described the region as follows: "The ruins of Tiddis bear witness to the succession of civilizations in *Berberia* from Neolithic times to the present day" (Berthier, 1991: 8).The site was officially recognised as an archaeological area in 1897, making it one of the key cities through which the chronological sequence of human settlement in North Africa can be traced from prehistoric times to the beginnings of the Islamic era.

Archaeological evidence indicates that the earliest phase of settlement at Tiddis dates to the protohistoric period, spanning the Bronze and Iron Ages. This stage is marked by the presence of

megalithic necropolises and circular *bazinas*, testifying to an advanced social and spiritual organisation that preceded the rise of the Numidian kingdom. These funerary monuments including dolmens and stone mounds attest to long-term occupation later reinterpreted within new religious frameworks (Camps, 1956; Bussière, 1998; Aounallah et al., 2020). This architectural pattern persisted in neighbouring sites such as *Thibilis* and *Cirta*, reflecting a continuum of cultural practices between Tiddis and other Numidian cities within the Cirta region.

During the Numidian period, Tiddis emerged as a local centre within the political system of Cirta. The remains of fortifications, enclosures, and rock-cut dwellings demonstrate mastery of local construction techniques adapted to the limestone plateau's topography (Berthier, 2000; Amraoui, 2018). Excavations have shown that some houses were partially carved into the cliff, with facades integrated into the natural rock in a design that combined functional requirements with environmental adaptation (Berthier, 1956: 147–153; Mhentel & Touahria, 2021: 383). A distinctive craft activity also flourished, notably the so-called *Tiddis pottery* (Camps, 1956), which reflects the prosperity of local industry and its link to regional exchange networks.

With the Roman annexation of Numidia in the first century BCE, Tiddis entered a new phase of reorganisation according to the imperial urban model, under the name *Res Publica Castellum* Tidditanorum (Gsell, 1991: F17, p.6). This transformation did not represent a rupture with the local heritage, but rather a reuse of the existing structure within a new administrative and engineering framework. The city preserved its ancient topographical gradation, and public facilities such as the *forum*, temples and baths were erected on the upper terraces, while the slopes were reserved for dwellings and daily activities (Berthier, 2000).

Tiddis stands out as one of the cities that combined local and Roman religious traditions, hosting temples dedicated to Vesta, Mithra, and Ceres, alongside the sanctuary of Baal Hammon, an expression of religious syncretism and the endurance of ancestral beliefs (Berthier & Leglay, 1958: 23–74). Coins bearing Neo-Punic inscriptions (Troussel, 1948: 133) were also discovered on the site, confirming the persistence of the local language in parallel with Latin, and revealing a culturally and linguistically pluralistic society.

In later periods, particularly during the fourth and fifth centuries CE, the city experienced a new phase of fortification following the weakening of Roman authority. This phase saw the construction of a Byzantine fortress and a Christian basilica (Berthier, 1991: 19–22). It represents a transition towards the Christian urban model of Late Antique North Africa, where urban and artisanal activity continued within the fortified enclosure despite the decline in administrative functions.

During the early Islamic period, the importance of Tiddis gradually declined in favour of Constantine. Nevertheless, the site remained inhabited until the eleventh century, as evidenced by fragments of glazed and painted pottery associated with the Fatimid period (Berthier, 1991: 19–22). Among the most remarkable inscriptions found in Tiddis is a stele commemorating the public career of *Quintus Lollius Urbicus*, a native of the region who became *Prefectus Urbi* of Rome in the second century CE, a symbol of the social advancement of Numidian elites within the imperial administration (Filah & Amrous, 2021: 434–456). Another inscription dedicated to *Julia Domna* also bears the city's name, confirming its official recognition within the Roman administrative landscape (Khelifa, 2011: 420). Together, these findings highlight the historical and political prominence of Tiddis, which remained an active centre within the North African urban network throughout the ancient and Late Antique periods.

Figure2
Bazina



Source: Author (2023).

Figure3
Punic wall



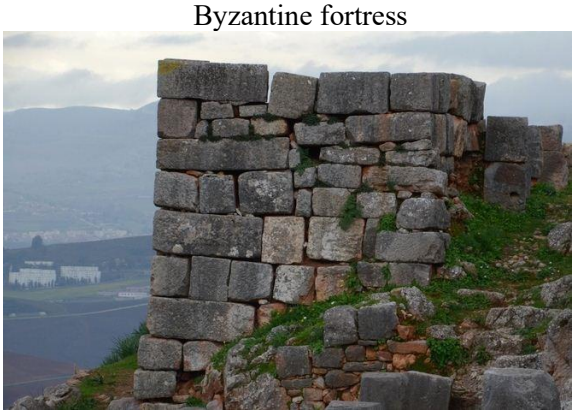
Source : Athor.(2023)

Figure4:
Coins



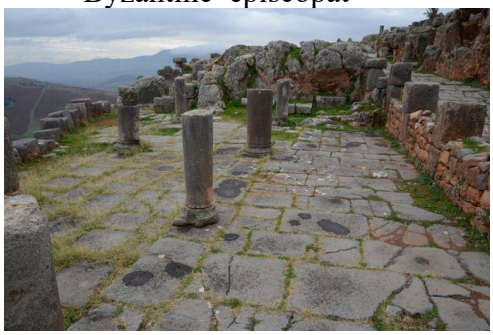
. Source: Berthier, A. (2000), Tiddis, cité antique de Numidie, Acad. des Belles Lettres, p.462.

Figure 05
Byzantine fortress



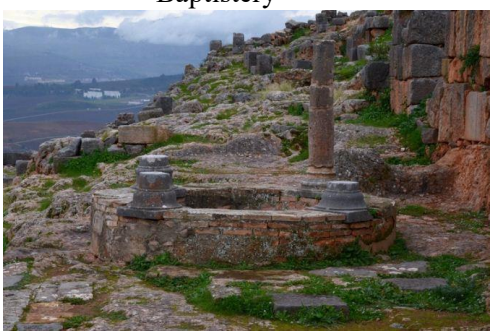
Source :Athor.(2023)

Figure 06
Byzantine épiscopat



Source :Athor.(2023)

Figure07
Baptistery



Source :Athor.(2023)

2. Numidian Urban Morphogenesis:

Centuries before Roman rule, Tiddis had already developed a distinctive urban character, reflecting the Numidian capacity to adapt settlement patterns to rugged and fragmented topography. Findings from the earliest excavations conducted in the late nineteenth century, later refined by André Berthier in the mid-twentieth century, reveal that the city was not built according to a rigid geometric plan. Instead, it evolved organically and progressively from its core outward, responding directly to environmental constraints (Berthier, 1991: 8; Berthier, 2000: 23–30).

Tiddis occupied a high rocky plateau overlooking the *Rhumel* Valley, its dwellings and streets following the contours and fractures of the limestone substrate. This produced a topographic fabric characterised by urban resilience, capable of expanding without major earthworks, a logic markedly different from the orthogonal grid typical of later Roman planning.

Numidian dwellings in Tiddis combined rock-cut excavation with the use of local stone masonry. Internal spaces were directly carved into the limestone mass to ensure thermal insulation and structural stability, while façades and protruding architectural elements were built with dry-stone masonry, known as *opus incertum* reinforced by wooden horizontal beams. Several walls preserve niches and sockets cut to support shelves or roof beams, while ceiling cavities bear witness to a simple yet effective structural system (Berthier, 1956: 147–153; Mhentel & Touahria, 2021: 383). These elements reveal a form of local urban intelligence, one that grasped the mechanical properties of rock and translated them into adaptive architectural solutions.

The remains of defensive walls and fortifications show the use of locally sourced materials of graded size, a technique well known in Numidian architecture at *Cirta* and *Thibilis*. It demonstrates a precise understanding of load distribution and wall stabilisation without the use of lime mortar. In certain sections of the fortifications, capitals of clearly Numidian style were found, decorated with simple vegetal and geometric motifs, aesthetic features that depart from Greek and Roman conventions, confirming the artistic autonomy of Numidian architecture at Tiddis (Berthier, 2000; Amraoui, 2018).

The funerary landscape constitutes one of the most expressive components of the Numidian urban environment. Excavations have uncovered circular *bazinas* and dolmens located on rocky terraces overlooking the slopes. These structures follow a ritual layout recurrent across other Numidian cities such as *Dougga, Thibilis*, and *Cirta* (Camps, 1956; Bussière, 1998; Aounallah et al., 2020). They are interpreted as collective clan-based tombs, reflecting the persistence of funerary traditions and the population's enduring attachment to land and ancestry. This connection between the sacred and the spatial embodies a spiritual urban conception, where the funerary domain acts as an extension of the living urban fabric rather than as a detached zone.

From an organisational perspective, the Numidian urban fabric of Tiddis does not appear to have resulted from a single centralised plan, but rather from the gradual clustering of domestic and kin-based units arranged around shared spaces used for daily activities or seasonal rituals. This poly-

nuclear organisation produced an integrated network of pathways and corridors combining utility, defence, and fluid movement. Such a structure explains the city's coherent organic morphology despite the absence of a dominant axial layout (Berthier & Leglay, 1958: 23–74). Archaeological data also indicate that small artisanal workshops were located on the margins of the settlement, integrating domestic and productive functions without the spatial segregation seen in classical cities.

Although the material evidence remains fragmentary, comparative data from nearby sites allow the reconstruction of a distinctive Numidian morphogenesis, one that merges topographic adaptation, organisational resilience, and the functional as well as aesthetic use of local materials. Tiddis thus embodies a unique model of organic Numidian architecture, balancing between rock and built structure, defence and habitation, and establishing what can rightfully be called *Numidian urban intelligence* ,a foundational matrix for the enduring urban identity of North Africa.

Figure 08
Troglodytic Numidian house



Source: Athor.(2023)

Figure 09
Numidian cemetery



Source: Athor.(2023)

3. Roman Urban Ordering and Hydraulic System:

With the incorporation of Tiddis into Roman rule, the city underwent a systematic yet selective transformation. Rather than dismantling the local urban framework, Roman planners introduced their canonical components the *cardo maximus*, public squares, baths, and water management

systems adapting them to the steep and rugged limestone plateau (Berthier, 2000, pp. 45–62; Leveau, 2019, pp. 557–559).

The *cardo maximus* became the main urban axis; however, unlike in the lowland Roman colonies, it did not extend in a perfectly straight line. Its path adjusted to natural terraces and slopes, forming a stepped and slightly inclined geometry (Berthier, 1991, pp. 19–22). Secondary streets were distributed irregularly, linking residential terraces, workshops, and public areas a hybrid network that preserved older social divisions while introducing a Roman order that facilitated movement and civic activity.

Monumental architecture served as both an instrument of Romanisation and a stabiliser of civic life.A small forum-like esplanade emerged near the central segment of the cardo, flanked by two perpendicular arches and modest administrative buildings partly carved into the rock. Public baths both the major *thermae* and smaller neighbourhood facilities played a central social role as daily meeting places and spaces for cultural exchange (Berthier, 2000, pp. 120–125).

The hydraulic system represented one of the most sophisticated and distinctive features of the Roman city. In Tiddis, the Romans relied on a locally adapted method for collecting, storing, and distributing rainwater instead of importing it through an external aqueduct, given the city's high elevation above the *Rhumel* Valley, which made natural gravitational pressure the only viable hydraulic solution (Berthier, 2000, pp. 123–125).

Berthier's excavations revealed a system of interconnected rock-cut cisterns, carved directly into the upper cliff of the city at different levels: the upper reservoir collected rainwater flowing from roofs and upper pathways; the middle one stored filtered water; and the lower cistern supplied the baths and fountains on the lower terraces. These cisterns were connected by carefully cut rock channels with a precisely calculated gradient, ensuring continuous flow by gravity without the need for artificial pressure. Leveau (2019, pp. 557–559) identifies this system as a rare example of mountainous hydraulic engineering in North Africa, demonstrating how the Romans successfully turned topographical constraints into mechanisms for water management. The internal carved conduits (*specus endohypogé*) reduced evaporation in the dry climate, while overflow drainage was diverted through lateral outlets towards the lower terraces, preventing erosion and ensuring the structural stability of the built environment (URBACO, 2012).

This system also fed small fountains and the *nymphaeum* near the forum, making the hydraulic network an integral part of daily urban life. The remains of basins and finely crafted stone channels illustrate the engineering precision with which rainwater was collected and utilised every drop harnessed in a mountainous environment of limited resources.

In conclusion, Roman urban organisation in Tiddis was not a mechanical replication of the imperial model, but a conscious and adaptive engineering response to a demanding environment. Through the fusion of hydraulic rationality and urban design, Tiddis emerged as a unique model of a Roman mountain city one that harmoniously combined technology with nature.

Figure10
Images of city's structuring elements



Cardo Maximus



Decamanus Maximus in stairs case



Northen Gate



ramparts



Perpendicular arches delineating the forum



forum

Source: Athor.(2023)

Figure11
water reservoir



Source: Athor.(2023)

Figure12
Small *thermae*



Source: Athor. (2023)

4. Hybridization and Cultural Continuity:

The Roman presence in Tiddis unfolded less as a rupture than as a process of negotiated cultural and spatial superimposition. Roman engineers did not impose a rigid orthogonal grid but rather adapted their interventions to the pre-existing Numidian fabric: the terraced layout, rock-cut dwellings, and ancient circulation paths provided a ready-made structure for the new imperial order (Berthier, 2000; Leveau, 2019). Thus emerged a palimpsest city, where Roman geometry complemented rather than erased the morphological intelligence of its Numidian past.

Material culture offers clear evidence of this hybridization. Ceramic production maintained ancestral techniques (*chaine opératorie* - operational sequence), using the same local clays and open-firing methods, while incorporating new forms suited to Roman functional and aesthetic standards (Amraoui, 2017). Artisanal traditions in leatherworking and small-scale metallurgy persisted on the urban peripheries, illustrating the continuity of economic and technical practices beneath the imperial veneer (Amraoui, 2018). Epigraphic evidence reinforces this picture: Latin inscriptions commemorating officials and benefactors coexist with *Libyco-Punic* personal names, confirming the survival of indigenous identity (Pflaum, 1977).

Religious expression also reflected this cultural symbiosis. The sanctuary of *Baal Hammon* continued to occupy its central role in local worship, while Roman temples dedicated to *Vesta*, *Mithra,* and *Ceres* were integrated into the sacred topography without erasing earlier beliefs (Berthier & Leglay, 1958). Votive stelae and composite iconographies demonstrate that spiritual adaptation was reciprocal: Roman deities acquired local attributes, and native gods were reframed within the imperial visual language.

This hybrid process did not imply subordination but rather creative appropriation. Local elites and artisans reinterpreted imported models to reinforce their prestige and social legitimacy while preserving familiar symbolic codes for the broader community. Such dynamics align with recent postcolonial interpretations of Roman Africa, which consider Romanisation not as unilateral acculturation but as a multidirectional negotiation (Drici, 2021).

Within this framework, the case of Tiddis resonates strongly with other Numidian centres such as Dougga and Thibilis, where similar fusions between local planning logics and Roman structuring have been observed. These sites collectively illustrate how indigenous urban resilience transformed imperial interventions into instruments of continuity. Tiddis, through its layered architecture, preserved its Numidian spirit beneath Roman form, an enduring testimony to the capacity of mountain cities to absorb, reinterpret, and transmit cultural identities across centuries.

The toponym Tiddis itself symbolises this intertwining of identity and memory. According to Berthier (1991), the term derives from the Berber root *Tiddar*, meaning “head of the house,” while other scholars suggest an alternative reading as “the slope.” This divergence of interpretation illustrates the richness of local linguistic heritage and its ability to encapsulate both the physical setting of the site and its symbolic depth within the regional landscape. Far from being contradictory, these dual readings express a continuity of perception from the ancestral sense of belonging to the Roman civic identity and thus exemplify the deep process of cultural hybridization that defined Tiddis through time.

Figure 13
general view of the city Tiddis



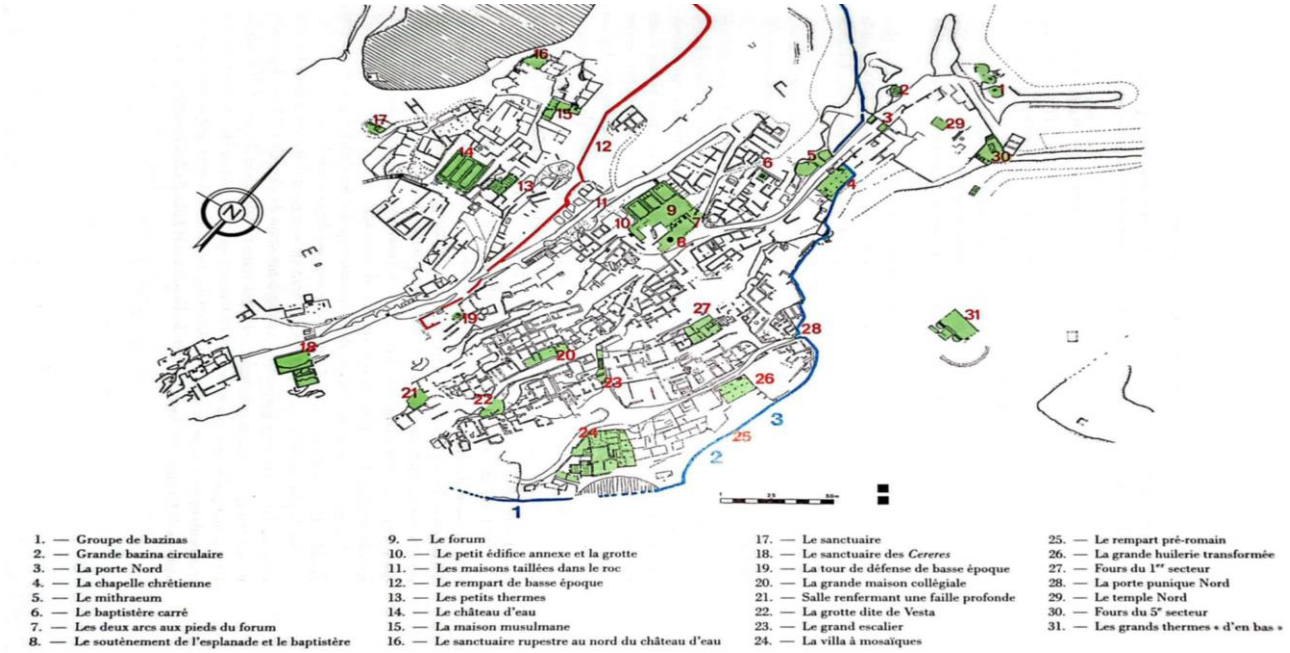
Source: Athor .(2023).

Figure 14
Topographic survey of the city of Tiddis



Source: URBACO (2012). Phase 01 of PPSMVA

Figure 15:
General site plan of Tiddis



. Source : Berthier,A.(2000),Tiddis,
Cité antique de Numidie, Acad. des Belles lettres.p. 49.

Results and Discussion:

Results: Field documentation and spatial analysis reveal a multi-layered palimpsest in which successive cultures added new forms without erasing previous ones. The Numidian substratum remains clearly legible in terraced rock-cut dwellings, funerary bazinas, and a poly-nuclear street network adapted to steep slopes (Berthier, 1991, p. 8; Mhentel & Touahria, 2021, p. 383).

Roman reorganization introduced the *cardo maximus*, public spaces, and advanced water infrastructure, yet conformed to the existing topography and preserved clusters of indigenous housing (Berthier, 2000, p. 45–62; Leveau, 2019, p. 557–559).

Cultural continuity endured in sacred precincts and artisanal production, where pottery and leatherworking adapted rather than disappeared thereby reflecting a dynamic interplay between tradition and innovation (Amraoui, 2017, p. 95–114; Pflaum, 1977, p. 109–117).

Discussion: These findings confirm that Tiddis does not represent a conventional case of top-down Romanisation but rather a form of interactive hybridization shaped through local negotiation and pragmatic adaptation. Numidian urban intelligence forged through centuries of coexistence with rugged terrain and kin-based social organization determined how Roman infrastructure was accepted, resisted, or reconfigured. This perspective challenges colonial narratives that once portrayed Africa as a blank canvas overwritten by imperial planning. Instead, Tiddis illustrates a co-production of space, where imperial models met the pragmatism and memory of indigenous builders.

From a theoretical standpoint, the Tiddis model reinforces postcolonial archaeological perspectives that critique Eurocentric narratives of the "civilizing mission."Roman towns in the Maghreb cannot be read as unilateral impositions but as co-created urban fabrics emerging from negotiation and mutual adaptation. Such an interpretation recalibrates comparative studies with other frontier regions of the Empire for instance, the Iberian interior or Dacia where local logics persisted beneath the Roman veneer.

From a cultural–heritage perspective, this analysis underlines the necessity of recognizing multi-temporality in the interpretation of ancient cities. Presenting Tiddis as purely Roman distorts historical understanding and erases centuries of Numidian innovation. By adopting a polyphonic reading in which temporal layers converse rather than exclude one another, the site reveals a richer and more inclusive urban identity. This vision echoes UNESCO's concept of the Cultural Landscape, which values continuity of use and meaning over static monumentalism, a framework that perfectly fits Tiddis, where space itself becomes a living record of cultural negotiation and memory. Tiddis thus stands as a compelling model of urban hybridity, merging spatial continuity with cultural openness, and demonstrating that hybridity is not a transitional phase but a structural condition in the making of ancient Mediterranean cities, a continuous negotiation between memory and matter, power and identity. It ultimately represents the ingenuity of Numidian urbanism in transforming external influence into an extension of the self rather than its negation.

Conclusion and Applied Perspectives:

Tiddis stands out as a pivotal case study for rethinking urbanism in North Africa. Its multilayered fabric demonstrates that external models can be absorbed without erasing the deep morphological memory. The Roman system in Tiddis was built upon a solid Numidian foundation, producing a form of urban resilience that enabled continuous adaptation between humans and nature and generated a distinctive model of urban hybridization in the Maghreb region.

From the standpoint of contemporary heritage management, these findings lead to practical recommendations. Effective protection cannot be achieved by freezing the site, but by turning it into a living cultural landscape that embodies its multiple historical layers Numidian, Roman, Byzantine, and Islamic and reinterprets them within a holistic vision of spatial identity. Integrating social and economic dimensions into conservation can transform Tiddis into a sustainable resource for knowledge and local development through participatory maintenance programmes that engage the community in safeguarding its heritage. Field experiences show that heritage enhancement can become an economic asset when grounded in an approach that respects the site's intrinsic character (Amraoui, 2017; Drici, 2021).

In this regard, educational and cultural itineraries could be designed to highlight the succession of urban phases, along with low-impact infrastructure such as designated pathways, interpretive panels, and interactive digital content. Traditional crafts pottery and leatherworking in particular could be revitalised as a continuation of ancient material knowledge, while modern digital tools like 3D modelling and augmented-reality displays can enhance visual understanding of monuments without affecting the site's original fabric.

Moreover, the involvement of local populations remains a cornerstone of any sustainable management plan. Training programs for guides, community tourism cooperatives, and small-scale eco-hospitality projects can foster local ownership, turning heritage protection into a source of livelihood and collective pride. Through this perspective, sustainable management becomes not an administrative burden but a cultural and economic force linking archaeological knowledge to daily life and restoring Tiddis's role as an active regional cultural engine.

This vision aligns with the principles of the 1972 UNESCO Convention and the United Nations Sustainable Development Goals (SDGs 8 and 11), which advocate for reconciliation between cultural preservation and local growth. Such an approach could also enhance Tiddis's eligibility for World Heritage nomination, provided it is supported by local capacity building and participatory governance that preserves the site's spirit without reducing it to a static monument.

The future of research remains open towards deepening the diachronic understanding of Tiddis, through the documentation of rock-cut dwellings and the study of urban networks linking Cirta to the Mediterranean basin. This type of mountain city, resiliently adapted to its terrain, constitutes a valuable scientific reference for studying Numidian urban intelligence, which succeeded in transforming natural constraints into functional urban resources.

Ultimately, Tiddis offers a timeless lesson in cultural hybridization and urban resilience, demonstrating that urban flourishing does not come from denying the past but from its creative uperimposition with the present. It is now taught in universities as a rare model of human capacity to adapt simultaneously to geography and history, opening vast horizons for future research projects on the concept of the city reconciled with both nature and identity.

References:

-Studies (Books and articles)

1. AOUNALLAH, S., BROUQUIER, V., et al. (2020). "Architecture et pratiques funéraires dans la nécropole nord-ouest à Dougga." *Afrique Antique* 56, 183–205.
2. AMRAOUI, T. (2017). Craft production in the ancient cities of Algeria (1st century BCE – 7th century CE). *Oxford: Archaeopress.*
3. AMRAOUI, T. (2018). "Urban evolution in Africa and the establishment of workshops between the 1st century BCE and the end of Antiquity: a chronological and spatial approach based on several Algerian cities." *Antiquités africaines* 54, 95–114.
4. BERTHIER, A. (1945). "Trois inscriptions de Tiddis." *Revue Africaine*, 5–20.
5. BERTHIER, A. (1956). "Les Bazinas de Tiddis." *Libyca série Anthropologie, Préhistoire, Épigraphie*, 147–153.
6. BERTHIER, A. (1991). *Tiddis antique castellum tidditanorum*. Algiers: National Archaeology Agency.
7. BRTHIER, A. (2000). *Tiddis, cité antique de Numidie*. Paris: BOCCARD.
8. BERTHIER, A. & LEGLAY, M. (1958). "Le sanctuaire de sommet et les stèles Baal-Saturne de Tiddis." *Libyca série Archéologie, Épigraphie*, 23–74.
9. BUSSIERE, J. (1998). "Quatre sépultures berbères protohistoriques de Tiddis." *Libyca* 46, 115–132.
10. CAMPS, G. (1956). "La céramique des sépultures berbères de Tiddis." *Libyca* 4, 155–203.
11. DRICI, S. (2021). "The settlement of Numidia: a historical and archaeological approach." *Ikosim* 10, 45–67.
12. FILAH, M. & AMROUS, F. (2021). "Castellum Tidditanorum Tiddis, Quintus Lollius Urbicus and his mausoleum." *Revue des Études Archéologiques* 19(01), 434–456.
13. GSELL, S. (1991). Atlas Archéologique de l'Algérie. Paris.
14. GSELL, S. (1898). "Note on some figured monuments discovered in Algeria." *Bulletin Archéologique du Comité des Travaux Historiques et Scientifiques*, 338–342.
15. KHELIFA, A. (2011). *Cirta, Constantine la capitale numide*. Algiers: Colorset.
16. LEVEAU, P. (2019). "Water in the cities of the Maghreb and their territories during the Roman era." *Revue des Études Anciennes*, 557–559.
17. MHENTEL, M. & TOUAHRI, H. (2021). "Numidian habitat in Algeria: the case of Cirta and Tiddis." In Die Numider, 40 years after. *Proceedings of an international colloquium*, Tunis.
18. PFLAUM, H.G. (1977). "Remarks on the onomastics of Castellum Tidditanorum." *Bulletin du Comité des Travaux Historiques et Scientifiques*, 109–117.
19. TROUSSEL, M. (1948). "Monetary treasure of Tiddis." *Recueil des Notices et Mémoires de la Société Archéologique Historique et Géographique du Département de Constantine*.
20. URBACO (2012). *Phase 01 du PPSMVA*, Constantine: Direction du Patrimoine.
21. WARTELLE, A. & BERTHIER, A. (2000). "Tiddis. Ancient city of Numidia." *Revue des Études Grecques* 113, 671–672.

Maps and Plans

1. BERTHIER, A. (2000). *Cité antique de Numidie*. Paris: BOCCARD, general site plan of Tiddis.
2. URBACO (2012). *Phase 01 of PPSMVA*, topographic survey of the city of Tiddis.
3. Geographical location map. Source: Expertise of the Constantine group and the SDRA (*road and highway master plan*).