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# THE PHOENICIAN WATERS: A STATE-OF-THE-ART REVIEW ON THE CULTIC AND ASTRONOMICAL USE OF THE KOTHON OF MOTYA

*AS ÁGUAS FENÍCIAS: UMA REVISÃO DO ESTADO DA ARTE SOBRE O USO CULTUAL E ASTRONÔMICO DO KOTHON DE MOTYA*

*LAS AGUAS FENICIAS: UNA REVISIÓN DEL ESTADO DEL ARTE SOBRE EL USO CULTUAL Y ASTRONÓMICO DEL KOTHON DE MOTYA*

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**Abstract**
Historically interpreted as a key element of the city's naval and commercial infrastructure, the monumental basin of Motya, known as the 'kothon', was long understood as an artificial inner port, analogous to the military harbour of Carthage (~220 km away). With the support of systematic archaeological campaigns conducted since 2002 by the University of Rome "La Sapienza", it is now possible to challenge this traditional view. The accumulated evidence establishes that the basin was not a harbour, but a sacred freshwater pool at the heart of a monumental sanctuary (temenos). This reinterpretation reveals a sophisticated religious complex, dedicated to the deities Baal and Astarte, which also functioned as an astronomical observatory. The precise alignment of the pool, temples, and stelae with celestial events—such as the solstices and the rising of constellations—demonstrates a profound integration of architecture, cosmology, and the cultic veneration of the natural world. This paper aims simply to present the state of the art regarding this important discovery and its interpretation, in order to provide a better understanding of Phoenician-Punic religiosity from an archaeological perspective.
**Keywords**: Motya, Phoenician-Punic, Temple, Kothon, Archaeoastronomy.

**Resumo**
Historicamente interpretada como um elemento-chave da infraestrutura naval e comercial da cidade, a bacia monumental de Motya, conhecida como 'kothon', foi durante muito tempo compreendida como um porto interior artificial, por analogia ao porto militar de Cartago (~220 km de distância). Com o suporte de campanhas arqueológicas sistemáticas conduzidas desde 2002 pela Universidade de Roma "La Sapienza", atualmente é possível desafiar essa visão tradicional. O conjunto de evidências estabelece que a bacia não era um porto, mas sim um lago sagrado de água doce no coração de um santuário monumental (temenos). A partir dessa nova reinterpretação revelou-se um sofisticado complexo religioso, dedicado às divindades Baal e Astarte, que também funcionava como um observatório astronômico. O alinhamento preciso do lago, dos templos e das estelas com eventos celestes — como os solstícios e o nascer de constelações — demonstra uma profunda integração entre arquitetura, cosmologia e a veneração cúltica do mundo natural. O objetivo desse artigo é, tão somente, apresentar o estado da arte dessa importante descoberta e a sua interpretação visando uma melhor compreensão da religiosidade fenício-púnica, por meio da Arqueologia.
**Palavras-chave**: Motya, Fenício-púnico, Templo, Kothon, Arqueoastronomia.

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**Resumen**
Historicamente interpretada como un elemento clave de la infraestructura naval y comercial de la ciudad, la cuenca monumental de Motya, conocida como el 'kothon', fue durante mucho tiempo entendida como un puerto interior artificial, por analogía con el puerto militar de Cartago (~220 km de distancia). Con el apoyo de las campañas arqueológicas sistemáticas llevadas a cabo desde 2002 por la Universidad de Roma "La Sapienza", ahora es posible desafiar esta visión tradicional. El conjunto de evidencias establece que la cuenca no era un puerto, sino una piscina sagrada de agua dulce en el corazón de un santuario monumental (temenos). Esta reinterpretación revela un sofisticado complejo religioso, dedicado a las deidades Baal y Astarté, que también funcionaba como observatorio astronómico. La precisa alineación de la piscina, los templos y las estelas con eventos celestes —como los solsticios y la salida de constelaciones— demuestra una profunda integración de la arquitectura, la cosmología y la veneración cúltica del mundo natural. El objetivo de este artículo es, únicamente, presentar el estado de la cuestión sobre este importante descubrimiento y su interpretación, con el fin de favorecer una mejor comprensión de la religiosidad fenicio-púnica a través de la Arqueología.
**Palabras clave**: Motya, Fenicio-púnico, Templo, Kothon, Arqueoastronomía.

## 1. Introduction

Whilst one of the most prominent Phoenician foundation in the central Mediterranean, the island of Motya has served for over a century as a crucial site for understanding Punic urbanism and material culture.

During the 16th century CE, the island was visited by the Dutch explorer and scholar Philippus Cluverius. Nonetheless, excavations did not commence until the eighteenth century, under the initiative of the Baron of Alagna. In 1875, Alagna invited Heinrich Schliemann to examine the site, prompted by the architectural parallels between Motya's Northern Gate and the Lion Gate at Mycenae. However, these early investigations did not constitute a structured archaeological campaign, and as a result, their findings were inadequately recorded and lack comprehensive documentation (Rossoni, 2004, p. 16–17).

Later during the 1900s, the initial interpretation established by its first systematic excavator, Joseph Whitaker, this basin was identified as an inner harbour, or kothon[1] (in Greek: κώθων), by analogy with the famed military port of Carthage (Whitaker, 1921, p. 150–165). This functionalist view, which positioned Motya primarily as a strategic and commercial outpost, settled into a long-standing academic consensus, profoundly shaping

[1] Kothon (masculine; plural kothonoi) A large Lacedaemonian cup, whose shape resembles that of a harbour or anchorage. Used in ancient texts to refer to the military harbour (Labeca glossary, 2025).

the understanding of the city's role within the Punic world for much of the 20th century.

While the term 'kothon' is a Greek loanword used in ancient sources to refer specifically to the harbour of Carthage, modern scholarship has since adopted it as a generic label for all Phoenician inner harbours. Yet, the term's other, more common meaning in classical texts is even more revealing. In the works of authors such as Athenaeus and Plutarch, the kothon is not a harbour but a Lacedaemonian drinking vessel, typically rounded with a thick rim. Crucially, this vessel, made of clay or bronze, was often used by sailors and soldiers as a votive offering within sanctuaries (Figure 1). This dual etymology, connecting the term to both maritime activity and sacred offerings, resonates powerfully with the reinterpretation of the Motya basin, where a supposed piece of naval infrastructure is now understood as the ritual heart of a sanctuary (Carayon, 2005, p. 5).

**Figure 1** - An example of a kothon aso known as exaleiptron. Painted with black bands and hatches. Archaic Greek from the 6th BCE from tomb 3 (Macedonia/Aivasil). Diameter: 40.64 centimetres (Museum number: 1919,1119.71, The Trustees of the British Museum).

On the other hand, recent archaeological campaigns directed by the University of Rome "La Sapienza" have brought to light compelling evidence that demands a re-evaluation of the traditional interpretation (Nigro, 2014; Nigro e Spagnoli, 2017). The data gathered from extensive excavations reveal features that are irreconcilable with a maritime function. Among these are the basin's limited depth, the demonstrable absence of a permanent, navigable channel connecting it to the sea during its main phase of use, and, most importantly, its clear integration within a wider sacred precinct, or temenos, a foundational element in Phoenician religious landscapes.

Far from a harbour, it is possible to establish the structure as a sacred freshwater pool, situated at the very heart of a vast religious complex. With the support of architectural and artefactual documentation, this sanctuary, within a temenos[2], can be firmly associated with the principal deities of the Phoenician pantheon, Baal and Astarte. The kothon itself appears to have served a dual purpose, deeply rooted in the city's material and immaterial life. It was at once a reservoir of sacred waters for ritual use, and, in a profound harmony as a religious complex and, possibly, as a vast archive[3], and a mirror for the heavens— a fine astronomical instrument whose surrounding features were meticulously aligned with the cosmos (Nigro, 2016).

In order to contextualise the significance of this reinterpretation, it is first necessary to situate Motya within the broader phenomenon of Phoenician expansion into the central Mediterranean. From this foundation, the historiography of the kothon's interpretation will be traced, from Whitaker's initial hypothesis to the recent discoveries that have rendered its tenets untenable. Finally, through a synthesis of the archaeological, architectural, and archaeoastronomical data, this State-of-the-Art article will explore the evidence that redefines the kothon as a sacred pool, considering the profound implications of this paradigm shift for our understanding of Phoenician religiosity, cosmological

[2] Temenos (masculine; singular τέμενος). In ancient Greece, a sacred precinct—often demarcated by walls or rows of stones—was consecrated to a deity, within which an altar and a temple could be erected (Labeca glossary, 2025).

[3] It is reasonable to posit that Motya possessed a functional archive to store its maritime and astronomical knowledge, or even served as a place of study. Unfortunately, such records were likely lost due to looting, fire, or the perishable nature of the writing media. This hypothesis aligns with the operational logic of many sanctuaries in Mesopotamia and the Near East, such as the archive in Erech (3100 BCE), the business records of Ur, and the repositories at Nuzi (containing religious and private deeds). Similarly, Egyptian temples acted as archives for vital records, ritual sites, and schools for scribes and medicine, as seen in the Hall of Rolls in Heliopolis, the Temple of Ptah in Memphis, and the Temple of Thoth at Hermopolis(see Porcaro, 2002).

knowledge, and worldview.

## 2. Phoenician water cult in Phoenicia and across the Mediterranean

To understand the significance of Motya[4], one must first consider the identity of its founders. The Phoenicians were a Semitic-speaking people whose cities, chief among them Tyre, Sidon, and Byblos, lined the coastal plain of the Levant. Confined by the mountain ranges to their east, they turned their gaze westward, establishing a profound and lasting relationship with the Mediterranean Sea, which became the canvas for their extraordinary expansion.

Unlike the territorial empires of Mesopotamia or Egypt, their political organisation was a network of independent and often fiercely competitive city-states. For long periods of their history, these polities were vassals to larger inland powers, a political reality that undoubtedly spurred their maritime and commercial enterprises as a means of generating wealth and securing a degree of autonomy (Markoe, 2000, p. 12–16; Aubet, 2001, p. 15–25).

Concerning the religious structures in Phoenicia, the Persian period Temple in Sector 7A at Tyre (modern-day Ṣūr, Lebanon), reveals the use of cultic water in the sacred areas. The uncovered temple in the southern part of Tyre—designated as Sector 7A—has been interpreted as dating to the Persian period (Badre, 2015). This area, located near the Roman baths (Secteur 3), was previously part of a Roman residential quarter (Badre, 2015, p. 61 fig. 2). Excavation Unit 15 revealed a sand stratum containing Phoenician jars dated to the 8th–7th centuries BCE (Badre, 2015, p. 60).

Several water-related features were discovered within the temple complex, notably a series of wells and a rectangular basin interpreted as a cultic installation associated with water rituals. A distinct area nearby has also been identified as a possible refuse zone (Badre, 2015, p. 63 fig. 3).

During the Hellenistic period, the temple underwent significant expansion. This is evidenced by the discovery of a nearly 30-metre-long wall, which has been interpreted as the temple's temenos, delineating the sacred enclosure. At the far western end of Excavation Unit 15, a circular sacred well was discovered. Within this feature were fragments of a Greek wine amphora alongside osteological remains of a bovine—finds

[4] It is believed that Tyre was the founder of Motya, due its own similarities (see discussion in Nigro, 2011).

that strongly suggest ritual activity involving libations or offerings deposited in a bothros[5] (Boschloos, 2016, p. 3–5 fig. 4).

In its earliest phase, a wall (designated W304) measuring 2.20 metres in width and 0.90 metres in height was uncovered, oriented southeast to northwest. Built from two rows of unevenly cut sandstone blocks, this structure runs beneath both the temple platform (W207) and the temple wall (W206), suggesting a complex architectural sequence related to the management of space and possibly water within the sacred zone (Badre, 2015, p. 64).

Another significant structure, identified as W306, was found at the north western limit of the excavation. This consists of seven large sandstone slabs laid parallel to each other, oriented southwest to northeast. Measuring up to 2.90 × 1.70 × 0.54 metres, they represent the largest stones recovered thus far. Notably, each slab bears a regular notch on its southern edge, interpreted as part of a quay or landing area—an interpretation supported by the discovery of nearby stone anchors. These may have been deposited as votive offerings, reinforcing the association between the temple and maritime cultic practices. Significantly, the water table was encountered immediately beneath these structures, further confirming the ritual and functional role of water in this temple complex (Badre, 2015, p. 64).

In other parts of historic Phoenician, during the Hellenistic period, the temple complex at Bostan esh-Sheikh (Sidon, modern-day Ṣaydā, Lebanon) was expanded eastward from the podium, extending into the valley below. Approximately 12 metres in front of the main podium lies the so-called Chapel of the Throne of Astarte, an open-air sanctuary established at the eastern base of the platform during the third century BCE (Betlyon, 1985, p. 53). At the heart of this chapel stands the sanctuary's eponymous cult object: the Throne of Astarte (Piscine du trône d'Astarté) a granite monument carved in the Egyptian style. The throne is empty however it is flanked by two sphinxes and surrounded by a pair of lions. It is set against a temple wall adorned with a high-relief hunting scene, reinforcing the sacred and symbolic nature of the space (Figure 2).

Directly in front of the throne lies a stone basin commonly referred to as the Pool of Astarte. This basin is understood to have served a ritual function and was fed by a

[5] Bothros (masculine: singular βόθρος). Hole; cavity; pit; pit for libations and offering sacrifices (Labeca glossary, 2025).

series of ceramic conduits, suggesting a deliberate incorporation of flowing water into the cultic practice. The orientation of the chapel is slightly skewed to the south, in the direction of Sidon, while the sanctuary itself is situated in the northern sector of the wider sacred complex (Betlyon, 1985, p. 53).

The site is briefly mentioned in Lucian of Samosata's De Dea Syria (4), where it is described as a Sidonian sanctuary, though the author provides fewer details than in his vivid description of the temple of Atargatis at Hierapolis-Bambyce (modern-day Manbij, Syria). In that account, cited by Dunand (Dunand, 1971, p. 20–21), the sacred temple is said to contain a naos that appears to float upon water, reinforcing the symbolic centrality of aquatic elements in the worship of goddesses linked to fertility and sovereignty.

The use of thrones in the cult of Astarte was not confined to this site; comparable cultic areas featuring hydraulic installations have been identified at Tayibeh, Emm el-Amad, and Ain Baal. At Kition, in Cyprus, evidence points to a high degree of hydraulic specialisation associated with sacred water practices. These included the use of cisterns, soakaways, sewers, and brothoi, often filled with imported Greek pottery such as skyphoi and drinking cups, underscoring the ritual complexity and symbolic centrality of water in Astarte's worship. Taken together, these features attest to the widespread iconographic and architectural standardisation of the goddess's cult across the Phoenician world (Caubet, 1986, p. 158).

**Figure 2** - Bostan esh-Sheikh. The Pool of Astarte (Bondì et al., 2009, p. 43, fig. 34).

## 3. The tradicional interpretation of the kothon of Motya

From the early Iron Age onwards, Phoenician mariners initiated a movement of expansion that was not one of territorial conquest but of maritime networking. They established their foundations as a "string of pearls": a chain of trading posts, walled emporiai[6], and settlements along the coastlines of Cyprus, North Africa, Sardinia, Sicily, and the Iberian Peninsula, eventually venturing past the Pillars of Herakles into the Atlantic (Aubet, 2001). It is within this dynamic matrix of commerce, cultural interaction, and deeply embedded religiosity that the island of Motya (Figure 3) and its most curious structure, the kothon, must be understood.

**Figure 3** - Aerial view and schematic of the rectangular basin traditionally interpreted as a kothon at Motya, Sicily. Note its alignment and location at the center of the sacred precinct (Nigro et al., 2019, p. 138, fig. 2).

For nearly a century, the scholarly understanding of the Motya basin was settled

[6] Emporiai (feminine; plural ἐμπορίαι) "A maritime trading hub; by extension, a coastal city with a major port and intense commercial activity" (Labeca glossary, 2025).

upon the foundational work of its first excavator, Joseph Whitaker. An Anglo-Sicilian polymath who acquired the island in 1906, Whitaker's systematic campaigns laid the groundwork for all subsequent research. According to his seminal account, Motya: A Phoenician Colony in Sicily (1921), the basin's monumental, artificial construction and its apparent connection to the sea led him to identify it as a kothon, or inner harbour. By direct analogy with the famed (though circular) military port of Carthage, this functionalist thesis was established, one that would prove to be a remarkably resilient orthodoxy (Whitaker, 1921, p. 188–193).

This maritime-functionalist view was later revised, though not fundamentally challenged, by the work of the British Expedition to Motya. The director of this project, Benedikt Isserlin, focused renewed attention on the basin. Whilst upholding its fundamental maritime purpose, Isserlin's soundings failed to confirm a deep, navigable entrance, leading him to propose a revised function as a dry dock for the careening and repair of vessels (Isserlin, 1971; Isserlin e du Plat Taylor, 1974, p. 57). According to this model, ships would have been hauled from the lagoon into the basin for maintenance rather than moored within it.

Thus, from Whitaker's initial hypothesis to Isserlin's modified model, the discourse surrounding the kothon of Motya remained confined within a purely practical, functionalist lens. For almost a hundred years, it was understood exclusively as a key component of the city's naval and commercial infrastructure, a testament to its identity as a bustling Phoenician port.

## 4. The paradigm shift

The long-standing orthodoxy began to unravel with the turn of the 21st century and the renewed, systematic campaigns directed by Lorenzo Nigro for the Sapienza (Figure 4). The resulting paradigm shift was not born of a single discovery, but from the cumulative weight of evidence that directly contradicted the functionalist harbour and dry-dock theories.

**Figure 4** - Topographic and architectural layout of the Motya basin showing its shallow depth and enclosing structures, incompatible with a maritime function (Nigro, 2022b, p. 358, fig. 2).

To begin with, excavations within the basin itself revealed physical characteristics wholly incompatible with a harbour. With a maximum depth of only 1.5 metres, sloping to less than a metre in the north, it was far too shallow to have accommodated the warships or large merchant vessels of the period (Nigro, 2022b, p. 361).

Perhaps more definitively, investigations of the supposed channel demonstrated that during its entire period of Phoenician use (*c.* 800–397 BCE), the basin was completely landlocked. The channel itself was proven to be a later feature, cut only after the city's destruction when the monumental sea wall, which had sealed the basin off from the lagoon, was dismantled (Nigro, 2014, p. 20–23, 2022b, p. 360).

The context of the basin was itself transformed by the discovery that it was not an isolated feature, but the very centrepiece of a vast, circular sacred precinct, or temenos. This sacred space was articulated by a series of monumental religious buildings, including a prominent temple to Baal on its eastern side, a second temple dedicated to Astarte, and a third complex known as the 'Sanctuary of the Holy Waters' (Nigro, 2015, p. 85–88, 2022b, p. 358). The ultimate confirmation of its sacred character came with the identification of its water source: the basin was not filled with seawater, but fed by at least three subterranean freshwater springs, natural features often venerated in the Levantine world (Nigro e Spagnoli, 2012, p. 2–3).

The cumulative weight of this evidence renders the traditional harbour interpretation untenable. The structure was too shallow, it was not connected to the sea, it was fed by sacred freshwater springs, and it was situated at the heart of the city's main sanctuary. The 'kothon' of Motya was not a harbour; it was a sacred pool.

## 5. The kothon as a ritual center

With the harbour theory dismantled, the true nature of the Motya kothon emerges: it was a multifunctional sacred space, meticulously designed to integrate religious ritual, cosmological belief, and the natural landscape. The entire complex functioned as a physical manifestation of the Phoenician cosmos, connecting the terrestrial world with the heavens above and the underworld below.

The great temenos of Motya was consecrated to the principal divine couple of the Phoenician pantheon: Baal and his consort, Astarte. On the eastern bank of the pool stood the primary temple, dedicated to Baal, likely in his manifestation as Baal 'Addir, the "Mighty Lord," a powerful deity of the storm and sea. The identification of the god is secured by epigraphic evidence from a votive pit, which yielded a Greek inscription dedicating an offering to Belios, a Hellenized form of Baal (Guizzi, 2012, p. 13–15). This dedication provides the definitive context for a monumental statue (c. 2.4 m in height) (see Figure 5) recovered from the lagoon—a colossal male figure whose size and iconography are consistent with a base discovered at the very centre of the sacred pool. The original is held at the Museo Salinas in Palermo. The reconstruction, which places the image of the god rising from the sacred waters he commanded, is further strengthened by the discovery of a sculpted stone foot of the same scale and material on the pool's edge (Nigro, 2014, p. 90–91).

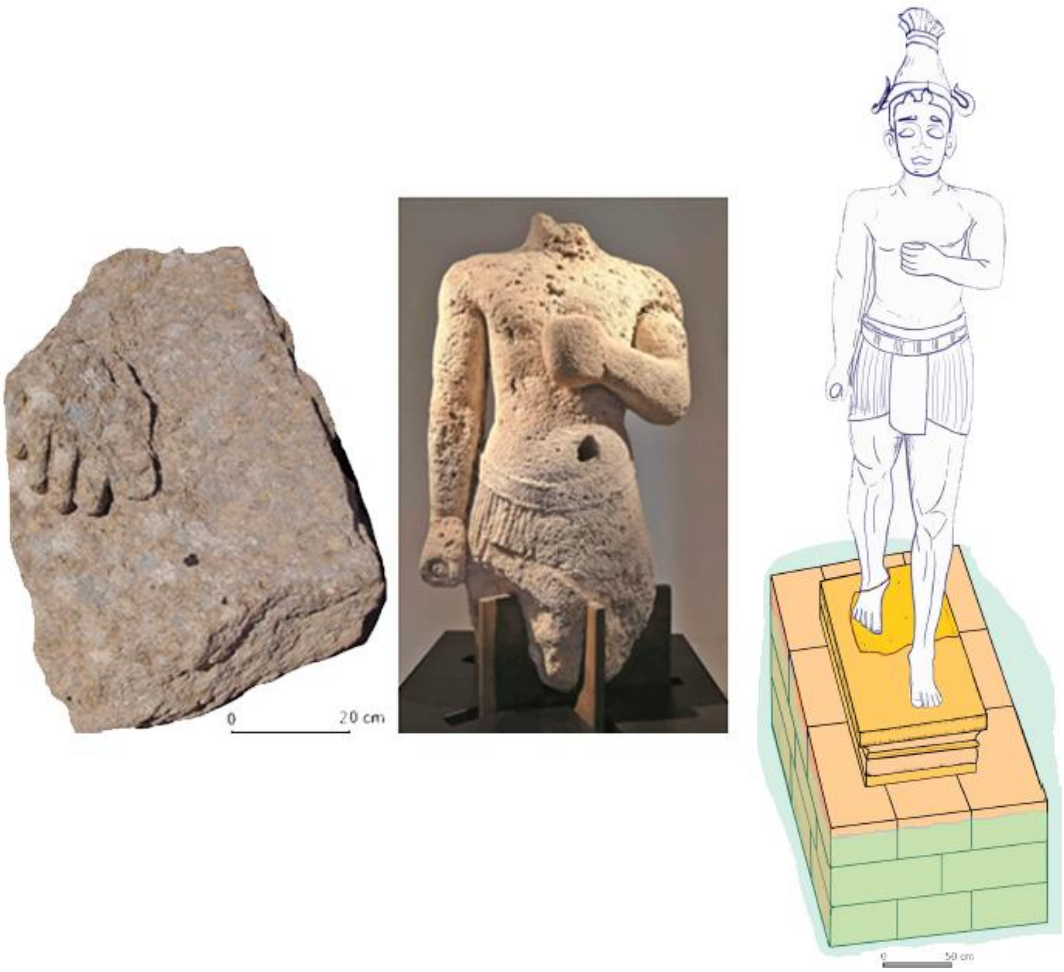


**Figure 5** – Illustration showing the hypothetical position of the colossal sandstone statue of Baal rising from the sacred pool, symbolizing the god's dominion over both water and the underworld (Source: Based on Nigro, 2014, p. 90–91, 2022b, p. 363–365, fig. 6-8).

Alongside Baal, the sanctuary venerated his consort, Astarte, the great goddess of fertility, love, and navigation. Her temple was situated to the northeast, its alignment towards Mount Eryx—home to a famed and ancient sanctuary of the goddess—being a significant act of sacred geography. Her presence is further confirmed by an inscription referring to a female deity by the Greek epithet AGLAIA, "The Shining One," a title that powerfully evokes the astral character of Astarte as the planet Venus, the first star to appear at dusk and the last to fade at dawn (Nigro *et al.*, 2019, p. 101–125).

## 5.2. The kothon as a keeper of astronomical knowledge

The very sacredness of the sanctuary (Figure 6) was founded upon the freshwater that filled its central pool. In the context of the Near East, where natural springs were often venerated as portals to the divine, the kothon was not merely a reservoir but a locus

for ritual purification and libations. The presence of numerous bothroi within the temenos points to a deeply embedded chthonic dimension to the cult, with offerings poured directly into the earth for underworld deities and ancestral spirits. This dualism is entirely consistent with the nature of Baal, a god who reigned not only over the seas but also over the waters that spring from beneath the earth, thereby linking the world of the living to that of the netherworld (Nigro e Spagnoli, 2012).

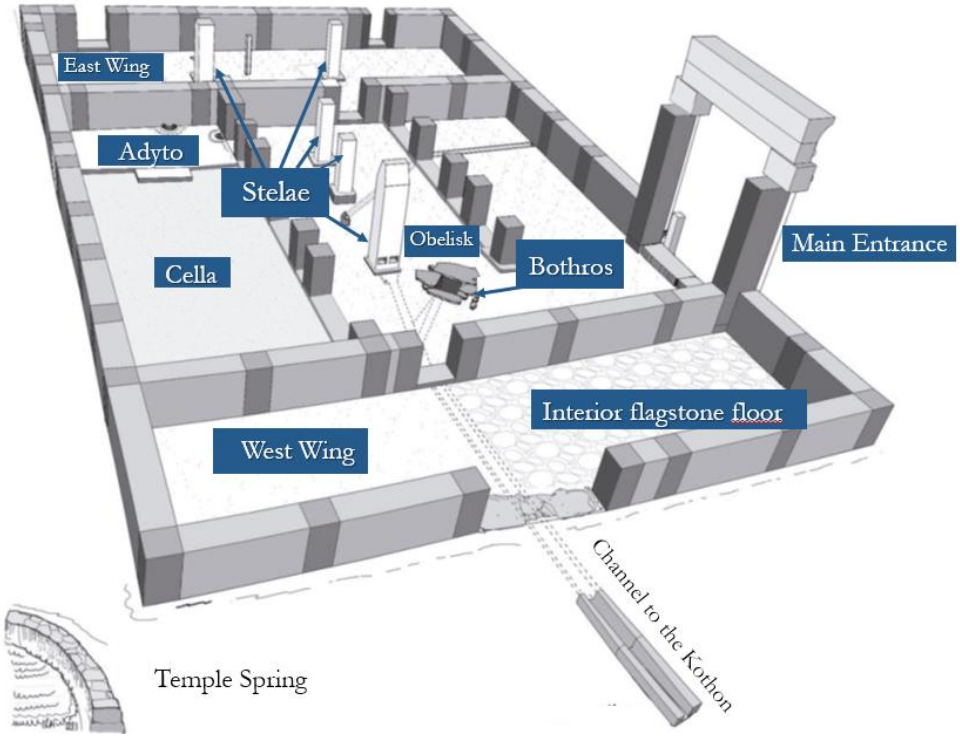


**Figure 6** – Plan of the sacred precinct surrounding the basin, including the temples of Baal and Astarte and ritual pits (bothroi) associated with chthonic worship (Source: Adapted from Nigro, 2015, p. 88 fig. 4).

The reinterpretation of the kothon culminates in the understanding of its function as a celestial observatory as an instrument of celestial observation. It is Its? perfectly still, horizontal surface would have served as an ideal ‘water mirror’ for charting the sky, a technique later attested in Islamic astronomical traditions (Nigro, 2022b, p. 367).

The architectural layout of the temenos confirms this astronomical purpose with remarkable precision, functioning as a veritable map of the sky. Thus, the Temple of Baal is oriented to align with the rising of the constellation Orion—the celestial embodiment of Baal himself—at the winter solstice. In turn, the Temple of Astarte is oriented to mark the summer rising of the planet Venus, the astral form of the goddess. Other features, such as stelae placed at key points along the circular precinct wall, marked the rising and

setting of further significant celestial bodies, with the South Stela, for instance, indicating the heliacal rising of Sirius.

**Figure 7** - Diagram showing the alignment of the Temple of Baal with Orion (winter solstice) and the Temple of Astarte with the rising of Venus (summer solstice), demonstrating the sanctuary's function as a celestial observatory (Source: Adapted from Nigro, 2022a, p. 349, fig. 7).

This celestial clockwork was not, however, merely for observation; it was profoundly ritualistic, linking the cycles of death and rebirth on Earth with the movements of the gods in the heavens. The winter solstice, when Baal/Orion (Figure 7) was "reborn" in the sky, would have marked the ritual renewal of the cosmos. The discovery of a possible bronze pointer, part of an instrument akin to an astrolabe (Figure 8), within the Temple of Baal provides the tangible proof of the advanced astronomical and navigational knowledge possessed by the priests and sailors of Motya (Nigro, 2009, 2022b, p. 359).

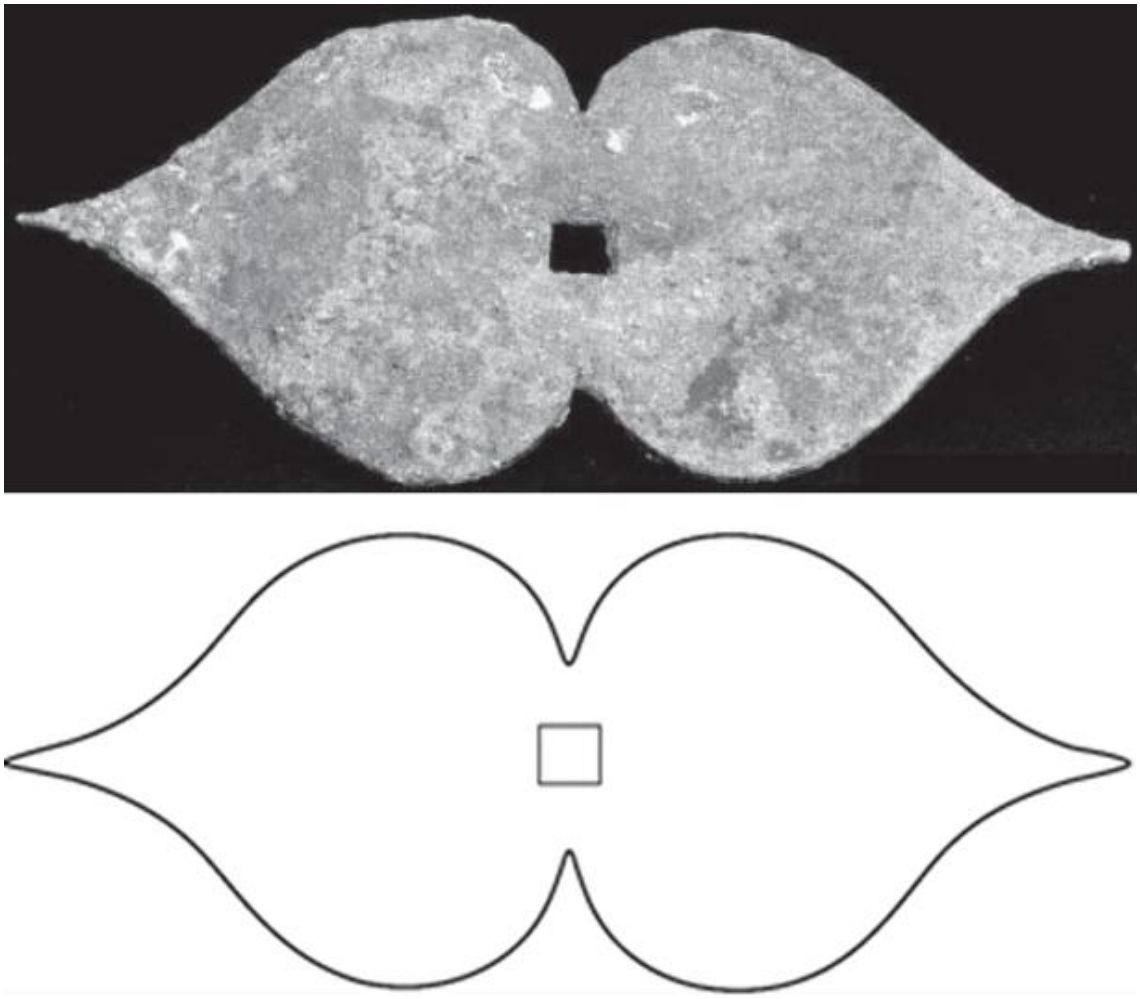

**Figure 8** – Photograph and schematic drawing (Author) of a bronze instrument discovered in the Temple of Baal, interpreted as part of a Phoenician astronomical or navigational instrument, possibly an astrolabe (fig. 13 Nigro, 2012, p. 323, scale not provided in original publication).

## 6. The kothon as a crossroad place

The Phoenician arrival in Sicily must be understood within the island's already vibrant cultural landscape. By the 8$^{th}$ century BCE, Sicily was a dynamic arena of coexistence (Figure 9), a stage upon which diverse peoples met, traded, and clashed. Alongside the Phoenicians, Greek colonists were establishing powerful poleis on the eastern and southern coasts, whilst indigenous peoples, most notably the Elymians in the west, maintained their own distinct territories and traditions (Nigro, 2013).

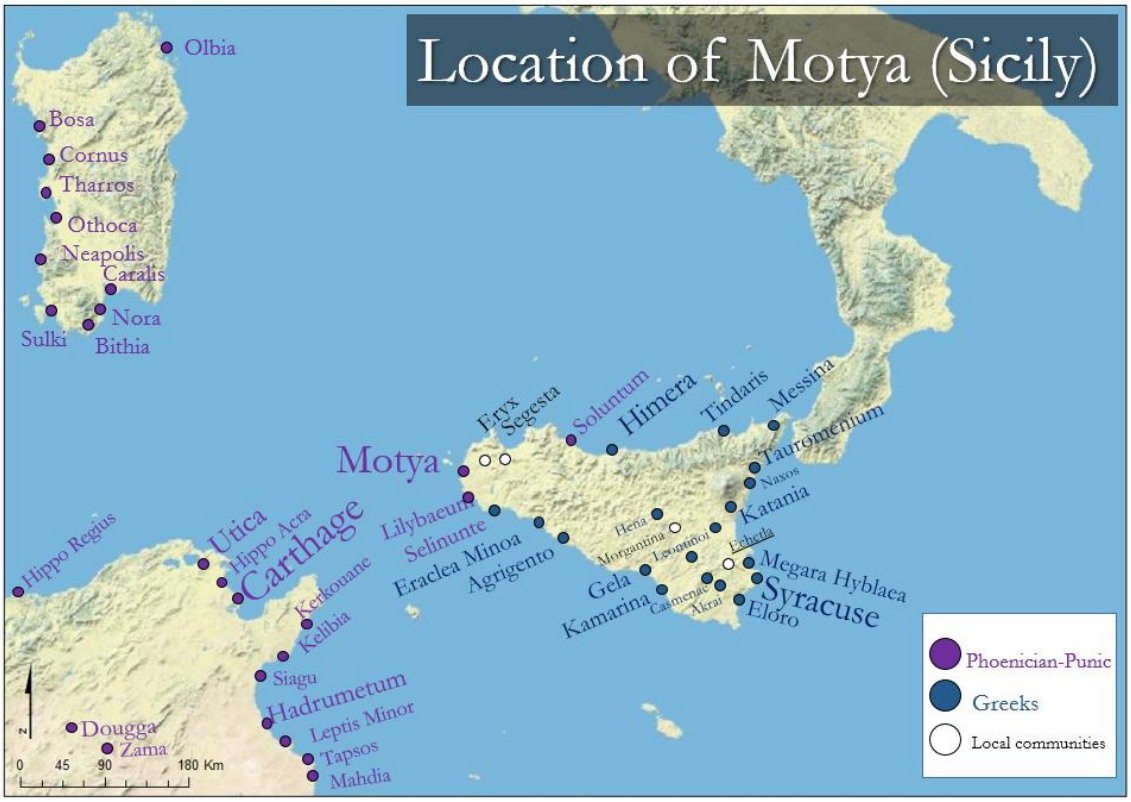


**Figure 9** – *Map of western Sicily highlighting Phoenician settlements (Motya, Solunto, Panormus), Greek colonies, and indigenous territories, illustrating the island's multicultural landscape in the 8th century BCE (Source: Author, 2025).*

This multicultural environment forged a unique context of constant negotiation, where cultural identity was fluid and continually redefined through contact and exchange. The strategic placement of the primary Phoenician settlements—Motya, Solunto, and Panormus—in the west of the island was a deliberate geopolitical act. This positioning allowed them to control the crucial sea lanes connecting the Tyrrhenian Sea to North Africa and the lucrative trade routes to Sardinia and Iberia, rich in coveted metals (Aubet, 2001, p. 220–227).

It is within this intense milieu that Motya, sheltered within its Stagnone lagoon, thrived. The city became a centre for commercial and cultural exchange, a place where the material worlds of the Levant, Greece, North Africa, Etruria, and the Sicilian interior converged. Even after its destruction by Dionysius I of Syracuse in 398 BCE, its archaeological record continued to be a evidence to this interchange, with Greek pottery found alongside Punic ceramics and local traditions visibly entangled with imported styles. It is this very identity as a cosmopolitan hub, a centre of interaction rather than isolation, that provides the essential backdrop for understanding its syncretic nature of its

most important sanctuary.

The paradigm shift that would redefine the Motya kothon was a gradual process, driven by the systematic investigations of the La Sapienza expedition. The functionalist harbour theory was not overturned by a single find, but rather crumbled under the cumulative weight of discoveries that revealed the basin's true context. The revolution began not by looking into the pool, but by excavating what lay around it.

Initial campaigns (2002-2005) focusing on the area to the east of the basin uncovered the foundations of a monumental building with a clear tripartite plan and a rich deposit of votive offerings, definitively identified as the Temple of Baal (Nigro, 2015). This discovery presented the first fundamental contradiction to the established narrative, for the placement of a city's primary temple on the edge of a supposed industrial port was a profound topographical anomaly.

Further campaigns revealed that the Temple of Baal was not an isolated feature. The identification of a vast, circular enclosure wall—a temenos—proved that the sanctuary did not merely sit adjacent to the basin, but that the basin was at its very heart (Nigro, 2018, p. 262–268). This discovery fundamentally altered the basin's context, moving it from the profane sphere of commerce to the sacred sphere of religion. Within this newly understood precinct, subsequent work would identify the Temple of Astarte and the chthonic 'Sanctuary of the Holy Waters', completing the picture of a sprawling sacred landscape (Nigro *et al.*, 2019).

Only after this sacred context was irrefutably established did the expedition drain the pool itself. This final act provided the definitive evidence: the shallow, uneven floor, the absence of a navigable entrance, and the identification of the freshwater springs that fed it (Nigro, 2014, p. 20–23). The archaeological argument, constructed over more than a decade, was complete. The 'kothon' was not a harbour; it was the sacred heart of one of the largest and most complex sanctuaries ever found in the Phoenician world.

## 7. The kothon temple of Motya as a miniature cosmos

The reinterpretation of the Motya kothon as a sacred pool reveals a monument of extraordinary complexity. It was not simply a place of worship, but a meticulously engineered cosmic architecture—a *mappa mundi* that integrated the natural landscape with the divine order. The sanctuary functioned as a link where the three realms of the Phoenician cosmos converged: the heavens, the earth, and the underworld. Its purposes

were manifold, encompassing religious ritual, ancestral veneration, and cosmographic observation.

Yet the water's significance was profoundly dualistic, extending deep into the chthonic realm. The numerous ritual pits, or bothroi, discovered within the temenos were not mere offering deposits but conduits to the underworld, channels through which offerings could be conveyed to ancestral spirits and netherworld deities (Nigro e Spagnoli, 2012). This chthonic function was monumentalised in the 'Sanctuary of the Holy Waters', whose central feature was a great votive pit—a veritable mundus or gate to the underworld—symbolically sealed by two massive stone anchors. This was a powerful act of ritual control, of 'anchoring' the potent forces of the netherworld.

This duality of water—as a source of celestial purification and as a link to the chthonic abyss—is a celestial reflector of the syncretic nature of Baal 'Addir himself, a god who commanded both realms.

The reinterpretation of the sanctuary culminates in the understanding of its most remarkable function: that of a large-scale a ritual calendar encoded in stone and water. The design of the temenos and its sacred pool was not arbitrary, but rather a precise instrument for charting the movements of the stars, which the Phoenicians revered as divine beings.

The architectural alignments within the temenos provide irrefutable evidence of this purpose. Thus, the main axis of the Temple of Baal is oriented to the precise point on the horizon where the constellation of Orion—the celestial embodiment of the god—rises at the winter solstice, marking the ritual "rebirth" of the cosmos. In turn, the shrine of Astarte is aligned to mark the summer rising of the planet Venus, reinforcing her role as the "Shining One," a celestial beacon for mariners.

The entire temenos was thus conceived as a monumental calendar, a clockwork of stone and water that rendered the divine order of the cosmos both visible and predictable. The discovery of a bronze navigational pointer, likely part of an astrolabe, within the Temple of Baal provides the tangible, physical confirmation of this advanced scientific knowledge (Nigro, 2009, p. 40). The priests of Motya were not only religious leaders but also skilled astronomers, presiding over a sanctuary a place where scholarship and religion were inextricably intertwined.

## Final Thoughts

The reinterpretation of the Motya kothon as a sacred pool, founded upon two decades of systematic archaeological investigation, moves far beyond the correction of a long-standing misnomer. It compels a fundamental revision of our understanding of Phoenician society itself, challenging the persistent image of a purely pragmatic and commercially-driven people. The sanctuary reveals a culture possessing a knowledge rooted in the stars movements movements of the stars and deeply integrated worldview, where erudition, religion, and monumental architecture were inextricably intertwined.

The great temenos of Motya was an engineered cosmos, a sacred space where the divine, the natural, and the human worlds were meticulously interwoven. Its freshwater springs served as a portal, linking the terrestrial world to the chthonic realm of Baal and the ancestors. The pool itself, a perfect mirror for the heavens, transformed the sanctuary into a monumental astronomical instrument, allowing the priests to chart the movements of the gods. Through the precise alignment of its temples and stelae with the solstices and the rising of constellations, architecture became the means by which a complex cosmology was inscribed upon the landscape itself.

The sanctuary is also the ultimate expression of Motya's unique identity as an autonomous and cosmopolitan centre. This was not a mere colonial copy of Tyre, but a vibrant cultural hub that absorbed and reinterpreted influences from across the Mediterranean. Its sacred pool, a distinctly Phoenician religious concept executed with a level of monumentality and astronomical sophistication hitherto unappreciated, places Motya firmly among the most significant religious centres of the pre-classical Mediterranean.

The sacred pool of Baal thus stands as a testament to a lost world of Phoenician intellectual and spiritual life. It redefines our understanding of their sacred architecture, reveals the profound complexity of their scientific knowledge, and restores a crucial dimension of cosmic awareness to a people long defined primarily by their alphabet and their trade.

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## AI Contribution Statement

In the preparation of this manuscript, the author used AI-assisted technology (Gemini Pro 2.5) solely for the purpose of revising the English grammar and improving stylistic clarity. The AI's role was limited to that of an advanced proofreading tool to ensure the manuscript's linguistic accuracy. Artificial Intelligence was not used in the conception of the study, its methodological design, or in the collection and interpretation of data. The human author retains full and sole responsibility for all arguments, interpretations, and the final content of this state-of-the-art article.

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