

Article

Grand funerary stelae (2nd–3rd c. AD) of the microregion of Musti (El Krib, Tunisia): an iconographic and epigraphic analysis and the latest eco-factual data (2019–2023)

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Abstract

New research in the microregion of Musti (El Krib) in N Tunisia in 2019–2023 has revealed unpublished 2nd–3rd-century AD funerary monuments featuring rich iconography, including a female figure beside the altar and two pigs. These items and other published epigraphic and anepigraphic monuments from the fertile microregion stand out from other tombstones in Roman Africa. Both the type of monument and its relief decoration distinguish these objects. A rare holistic approach, combining historical, epigraphic and iconographic analyses with the results of archaeobotanical and archaeozoological research, will enhance our understanding of the history and agriculture of the Musti microregion and this part of Proconsular Africa during the early Roman Empire.

اللوحات الجنائزية الكبرى (2–3 م) لاقليم موستي (الكريب ، تونس): تحليل أيقوني ونقائشي وأحدث البيانات البيئية (2019–2023)
كارول كلودزينسكي

كشفت بحث جديد في اقليم موستي (حاليا الكريب) في شمال تونس في 2019–2023 عن آثار جنائزية غير معروفة من القرنين الثاني والثالث بعد الميلاد تتميز بأيقونات غنية، بما في ذلك شخصيات أنثوية بجانب المذبح وخنازير. تبرز هذه العناصر وغيرها من النقائش المنشورة من الاقليم الخصب في شواهد جنائزية أخرى من عديد مدن إفريقيا الرومانية. وتميز الانصاب التذكارية وزخارفها البارزة هذه الخصائص. تتبع هذه الدراسة منهجا شاملا، يجمع بين التحليلات التاريخية والكتابية والأيقونية مع الاخذ بعين الاعتبار نتائج البحوث الأثرية، وهذا سوف يعزز فهمنا لتاريخ وزراعة اقليم موستي خلال الفترة الرومانية.

Key words: cult of Ceres/the Cereres, epigraphy, archaeobotany, archaeozoology, Musti, Tunisia

Introduction

Musti/Mustis (*municipium Iulium Aurelium Mustitanum*)¹ was located in a highly urbanised area, 12 km from Thugga, 10 km from Uchi Maius and ca. 123 km from Carthage, along the main route leading from Carthage to Theveste.² The area of the entire town of Musti was estimated to cover ca. 34 ha.³ During the early Roman Empire, Musti was surrounded by numerous private, community or imperial domains,⁴ such as the imperial property in Henchir Hnich (3.5 km west of Musti), where the first copy of the *lex Hadriana de agris rudibus* was recently discovered,⁵ or the *Fundus Turris Rutundae* (7 km southeast of Musti), where the *coloni fun[di Tur]ris Rutundae d(omini) n(ostri) Aug(usti)* were active in 235 AD.⁶

Musti and the surrounding microregion included the southwestern part of the modern ‘plaine du Krib’ comprising agricultural areas and fallow lands covering approximately 100 km² (Figure 1).⁷ Nearby landforms marked clear boundaries of the farmlands surrounding Musti: Jebel Khdeit from the west, Jebel Ech-Chehid from the east and the lonely mountain range of Jebel Bou Khil, closing off the valley from the south. Only the

northern limit of the town’s influence was demarcated by an artificial administrative boundary of Thugga, in the vicinity of Agbia and Aunobari. The microregion of Musti lies in the fertile alluvial valley of the Oued Khalled, a tributary of the River Bagradas (Oued Majardah/Medjerda) – an important communication route and a vital agricultural area in the Tunisian Tell.⁸ The heavy soils of the valley were perfect for growing crops, which were watered by annual rainfall of 500–700 mm.

In the years 2018–2023, the Musti site and adjacent areas were investigated by the Tunisian–Polish Archaeological Mission. Three funerary monuments from Musti (no. 1) (Figure 2), Sidi Bou Beker (ca. 2 km southwest of Musti, on the southern slope of Jebel Bou Khil) (no. 2) (Figures 3–4) and Aïn El Gueliane⁹ (ca. 1.5 km east of Musti) (no. 3) (Figure 5) were documented during the research, and these attracted our special attention. The monuments contain an inscription and feature unique iconography, including a female figure beside the altars, as well as images of cereals, other crops and pigs. Two of the objects are unpublished, and there was little interest in the Sidi Bou Beker monument, published in the late 1920s.¹⁰ The exact provenance of these objects is unknown, but they certainly came from the immediate area of Musti and were documented on the nearest farms or at the site in Musti. From the same microregion, Thacia–Bordj Messaoudi (ca. 8 km west from Musti) (no. 4) (Figure 8), comes another similar anepigraphic monument, known only from a provisional drawing. Three grand stelae of

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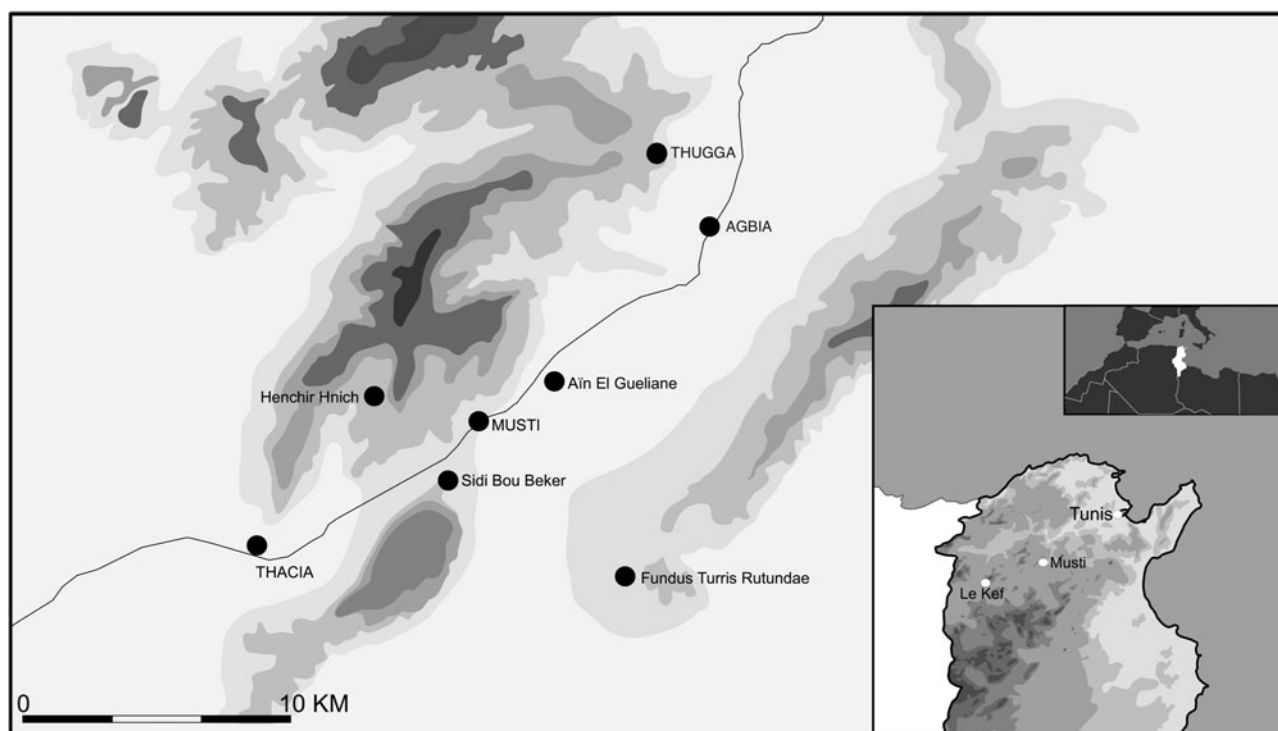


Figure 1. Map of the modern 'plaine du Krib' with the most important ancient toponyms (drawing by M. Antos).

the Musti microregion contain an epitaph. The fourth anepigraphic stele from Thacia shows the same relief decoration, so it can be assumed that it also has a funerary character. These four monuments are dated to the 2nd–3rd c. AD.

Almost all objects are fragmentary, but their iconography, text, dating and stylistic parallels could be considered together. The fact that we are dealing with not one, but four similar objects means that focusing solely on epigraphic and iconographic analyses would be insufficient and would narrow the research.

Therefore, finding a new methodological formula that would allow for placing the studied monuments in a broader perspective, and thus provide a multifaceted understanding of not only the local community and mortuary landscape, but also religious life and agricultural production in this microregion, turned out to be necessary. For this purpose, we used the latest eco-factual data obtained from the Musti site.



Figure 2. The stele from Musti (photo by K. Kowalewski).



Figure 3. The stele from Sidi Bou Beker (photo by T. Waliszewski).

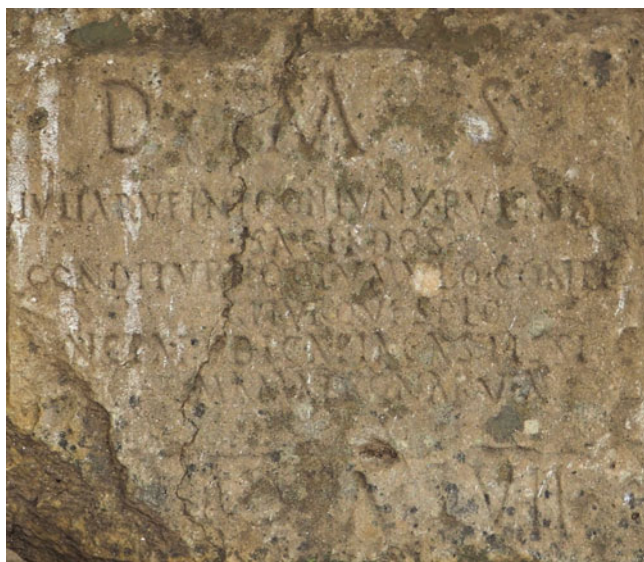


Figure 4. The epitaph of Iulia Rufina from the Sidi Bou Beker stele (photo by T. Waliszewski).

In classical archaeology, combining and analysing different types of data is nothing new. It is worth recalling M. MacKinnon's theoretical considerations, which show the great potential of interrelationships of textual, iconographical and zooarchaeological evidence in determining 'breeds' of animals in antiquity.¹¹ Each of these categories of sources is specific, and their study requires a specific methodological approach. According to M. MacKinnon: 'Overall, ancient texts, iconographic works, and archaeological materials (bones or otherwise) often reflect different activity domains, locations, and timescales in the past, which in many cases inflicts serious challenges on interweaving their accounts into a single comprehensive narrative.'¹² However, a joint analysis of these different data seems promising: 'Exploration of animal "breeds" in Greek and Roman antiquity represents one field for which the integration of ancient textual, iconographic, and zooarchaeological datasets shows tremendous promise.'¹³ The deceased, their families and stonecutters functioned in a specific natural reality. Their activity was conditioned not only by cultural and religious elements, but also by the local economy and agricultural production and consumption.

Approaching revealed items by combining historical, epigraphic and iconographic analyses with the results of archaeobotanical and archaeozoological research will improve our

understanding of the history of the Musti microregion and this part of Proconsular Africa during the early Roman Empire. Until now, such a multidisciplinary approach combining different fields has been rare;¹⁴ historical, epigraphic and environmental studies relating to North Africa have, despite often covering similar topics, usually been done separately.¹⁵ In this context, the characteristics of crops and livestock in the Musti area and the analysis of their importance to the inhabitants are particularly important. Seed, fruits and bones are direct evidence of the use of particular plants and animals at a particular place and time. They also bring us knowledge about these biotic elements of the past environment. But each source mentioned, because of its character, provides incomplete data. Only comparing the information contained in historical sources with the list of plant and animal taxa found in materials from archaeological sites and the artifacts described allows broader findings and a more complete assessment of the life of ancient communities.

Materials and methods

The epigraphic and anepigraphic funerary monuments with reliefs from the Musti microregion analysed in the article were presented according to a set scheme. Specifically, we provide the characteristics of the item itself (its dimensions, editions and dating, and the text of the epitaph with translation) and a historical commentary that focuses mainly on onomastics and controversial issues. Three monuments (nos 1–3) were documented between 2019 and 2023 based on direct study of the items: no. 1 – at the Musti site; no. 2 and no. 3 – on two modern farms, Sidi Bou Beker–Bordj Ouiba and Aïn El Gueliane. Meanwhile, the anepigraphic stele from Thacia–Bordj Messaoudi (no. 4) is kept in the Bardo National Museum.¹⁶

Considerations on the religious iconography of the four stelae from the Musti microregion and their comparison with other funerary stones with relief decorations from Roman Africa are based on the list of religious symbols in Table 1. *Religious symbols in the funerary stones of priestesses of Ceres/the Cereres in Roman Africa*. The table presents 17 tombstones with at least two symbols that are part of the canonical iconography of priestesses in this cult.¹⁷ However, the table does not include tombstones with single decorations, such as a stele with a garland from Madauros¹⁸. It also excludes the funerary stele with a torch on the left from Chusira¹⁹ and two *cippi* from Ammaedara (Haïdra): the first with two columns and torches at both sides and the second whose epigraphic field was flanked by two torches.²⁰

The archaeozoological and archaeobotanical materials used in this article were obtained during the course of excavations in 2019–2022 on the site of the former Musti. Archaeobotanical samples in the form of bulk sediments were collected from each archaeological layer (context) revealed during exploration. Flotation samples (ca. 5 kg) were taken for the recovery of archaeobotanical remains from each archaeological layer (context) identified during excavation. The flotation residues (sieves 2.0, 0.5, 0.2 mm) were examined for diaspores and charcoals. Larger animal bones were collected manually during the exploration of individual contexts, and smaller fragments were collected by flotation. The chronology of individual layers was established based on the results of archaeological research (stratigraphy, ceramic finds) and C¹⁴ dating. For the purposes of this article, only those materials whose chronology was set at the 1st–3rd c. AD were selected. The archaeobotanical results presented in the article concern 14 contexts represented by 17 samples. They were associated with three trenches, where the trench T4 was located within the ancillary building near the B6 temple and the trench T7 was part of the area of the B5 temple. The trench T1 was opened in the north part of street 5, between buildings B8 and B9. The archaeozoological



Figure 5. The stele from Aïn el Gueliane (photo by K. Kłodziński).

Table 1. Religious symbols in the funerary stones of priestesses of Ceres/the Cereres in Roman Africa (table by K. Kłodziński).

No.	Funerary stone	Funerary object	Name of priestess	Altar	Calathos (a fruit basket)	Snakes	Candelabra	Canistraria	Priestess	One sow	Two sows	Sacrificial tools (e.g. knife)	Torches (most often topped with candelabra)	Ears of cereals	Source
1.	Musti	stele	Iulia(?) O[—]	X	X	X	X	X	X	-	X	-	X	-	in this article
2.	Sidi Bou Beker	stele	Iulia Rufini coniunx Rufina	X	X	X	X	-	X	-	X	-	X	X	Saumagne 1928–29, 693–96 = <i>ILTun</i> 1563
3.	Aïn El Gueliane	stele	Vitellia L. f. Quartina	X	-	X	-	-	X	-	X	X	X	-	in this article
4.	Thacia-Bordj Messaoudi	stele	-	X	X	X	X	X	X	-	X	-	X	-	Catalogue du Musée Alaoui 1897, C (Sculpture), p. 59, no. 103, Pl. XVI
5.	Aïn Maja (near Thala)	three-sided cippus	Flavia M. f. Tertulla	-	X	-	X	X	-	-	X	-	-	-	<i>IL Afr</i> 199 = <i>ILPBardo</i> 25
6.	Bou Arada region	four-sided cippus	-	X	X	-	-	-	-	X	-	X	-	-	Poinssot 1959–60, 108, no. 1
7.	Ferme Fritch (near Simitthus)	stele	Iulia C. f. Rosa	-	-	-	X	-	X	-	-	-	X	-	Quoniam 1953, 149 no. 24
8.	Hr Jenoun -Saltus Massipianus (near Thala)	cippus	Helvia Severa	-	-	-	-	X	X	-	-	-	-	-	<i>CIL</i> VIII 591 = <i>ILTun</i> 504
9.	Hr Kharrouba (Gales) ¹	four-sided cippus	Quarta, Nyptanis f(ilia), Galenisis, ux{s}or Celeris, Mantis f(ili)	-	X	X	-	X	-	-	-	-	-	X	<i>ILPBardo</i> 320 = <i>CIL</i> VIII 23834
10.	Hr Sidi Slimane	cippus	-	X	-	-	-	-	X	X	-	X	X	X	Ben Romdhane 2013, 150–52, fig. 7–10
11.	Mactaris	three-sided cippus	-	X	X	-	-	X	X	-	X	-	X	X	Drine 1986, 220–221, pl. XXIX (cippe inédit)
12.	Mactaris	pediment of the edicule	-	-	X	-	-	-	X	-	-	-	-	-	Picard 1970, 195–96
13.	Madauros	stele	Claudia Paula	X	-	-	-	-	X	-	-	-	-	X	<i>ILAlg</i> I, 2218
14.	Saddar – Aïn El Bey	altar	Firmidia L. filia Impe[t]rata	X	-	-	-	-	X	-	-	-	-	-	<i>CIL</i> VIII 5937
15.	Saradi – Hr Sehili	three-sided cippus	-	-	X	-	X	X	-	-	-	-	-	-	Bourguida-M’Charek 1997, 34–36
16.	Sidi Ali Mediouni (Mactaris region)	stele	-	-	X	X	X	-	-	X	-	X	X	-	Picard 1954, 186–87, fig. 20; Picard 1956, 186, pl. 86
17.	Sucubi	four-sided cippus	-	X	-	-	-	-	-	X	-	X	X	-	Poinssot 1959–60, 107–8, pl. II

remains were recorded from the same contexts. Animal remains were identified in terms of taxon and anatomical elements. Standard methods were used for their analysis.²¹ The data was given as NISP (Number of Identifiable Specimens).

Description of the monuments

1. Monument from Musti (Figure 2)

- a) **Limestone funerary monument stored at the archaeological site in Musti, located at the southern wall of the so-called Temple of Ceres; discovered during excavations in 1960, Fonds Poinssot (Archives 106/94/1/10), INHA Library.**
- b) **Dimensions of object:** h. 130 cm; w. 120 cm; d. 23 cm.
- c) **Height of letters:** l. 1: 4.5 cm; l. 2: 3 cm.
- d) **Dating:** 2nd c. AD (the *DIS MAN SACR* formula).²²
- e) **Edition:** unpublished.
- f) **Text:**

DIS MAN SACR

IVLIA O [—]

Dis Man(ibus) sacr(um). | Iul̄ia O[—].

- g) **Translation:** To the Spirits of the Dead. Iulia O[—].
- h) **Commentary:** Due to the epitaph being damaged, the reconstruction of the priestess' *gentilicium* is hypothesised. Iulius/Iulia is the most popular *gentilicium* in all of Roman Africa.²³ Iulii are well attested not only in Musti but also in the Musti microregion, e.g., L. Iul(ius) L(uci) f(ilius) Cor(nelia) Pontius from Henchir El Oust.²⁴ Iulius is the most common *gentilicium* in the neighbouring town of Thugga (10% of the entire epigraphic evidence),²⁵ not to mention the nearby region.²⁶

2. Monument from Sidi Bou Beker (Figures 3–4)

- a) **Limestone funerary monument stored on a farm.**
- b) **Dimensions of object:** h. 160 cm; w. 180 cm; d. 35 cm.
- c) **Height of letters:** funerary inscription – l. 1: 5 cm; l. 2: 2 cm; l. 3: 2 cm; l. 4: 2 cm; l. 5: 2 cm; l. 6: 2 cm; l. 7: 2 cm; l. 8: 5 cm.
- d) **Dating:** 2nd–3rd c. AD (onomastics and the *DMS* formula).
- e) **Edition:** Saumagne 1928–29, 693–96; *AE* 1932, 16; *ILTun* 1563; Pikhaus 1994, 95, A132.
- f) **Text:**

D · M · S
IVLIA · RVFINI · CONIVNX · RVFINA
SACERDOS
CONDITVR HOC TVMVLO CONTE
GITVRQVE SOLO
NCTA PVDICA PIA CASTISSI
MA MATRONARVM
V · A · LVII

D(is) M(anibus) s(acrum). | Iulia Rufini coniunx Rufina | sacerdos, | conditur hoc tumulo conte|giturque solo, | [sa]ncta pudica pia castissi|ma matronarum | v(xit) a(nnis) LVII.

- g) **Translation:** To the Spirits of the Dead. Iulia Rufina, wife of Rufinus, the priestess, is buried in this tumulus, and covered by the earth. She was a saint, a modest, pious and most chaste of matrons, having lived 57 years.

- h) **Commentary:** In the *editio prima* the epithet *pia* (l. 6) was omitted.²⁷ The epitaph of Iulia Rufini coniunx Rufina was written in the form of an elegiac distich.²⁸ Iulia Rufina bears the same *cognomen* as her husband, which is unusual. Iulia Rufina belonged to the same family as Iulia O[—] from Musti (no. 1). Rufina is a popular female *cognomen* in the Principate, especially in the 2nd c. AD.²⁹ Four hundred and three women bearing the *cognomen* Rufina are known.³⁰ Octavia Rufina is confirmed from Thugga,³¹ whereas Antonia Rufina P. f. and Iuventia Rufina are confirmed from nearby Sicca Veneria.³² Furthermore, a senatorial woman, *c(larissima) f(emina)*, Aemilia Tertulla Marciana Cornelia Rufina Africaniana, comes from the nearby locality of Aquae Aptuccensium (Hammam Biada).³³

3. Monument from Aïn El Gueliane (Figure 5)

- a) **Limestone funerary monument stored on a farm.**
- b) **Dimensions of object:** h. 56 cm; w. 83 cm; d. 14 cm.
- c) **Height of letters:** altar – l. 1: 3.5 cm; l. 2: 3.5 cm; l. 3: 3.5 cm; l. 4: 3.5 cm; epitaph – l. 1: 2.5 cm; l. 2: 2.5 cm; l. 3: 2.5 cm. Upwards-pointing ivy leaves (*hederae*) are engraved in lines 1–3 of the epitaph.
- d) **Dating:** 2nd–3rd c. AD (onomastics and the *DMS* formula).
- e) **Edition:** unpublished.
- f) **Text:**

MA
NAS
DVAS
IC

D · M · S
VITELLIA · L · F · QVARTINA
PIA · VIXIT · ANNIꝯ LXXX

(Vitellia Quartina?) Ma|nas | duas | i(ta) c(onsecravit). || D(is) M(anibus) s(acrum). | Vitellia L(ucii) f(ilia) Quartina | pia vixit anniꝯ LXXX.

- g) **Translation:** Vitellia Quartina (?) consecrated in that way two (statues?) of the goddess Mana. To the Spirits of the Dead. Vitellia Quartina, pious, daughter of Lucius, lived 80 years.
- h) **Commentary:** The proposed interpretation of the abbreviated text carved on the altar and unattested in other Latin inscriptions is hypothetical. The accusative plural MANAS DVAS, unconfirmed by epigraphic evidence, could not relate to the spirit-gods (*Manes*), because the accusative plural of *Manis* (*Manis*, m.) is MANES, not MANAS. This form might be a 'misspelled' version of *Manes*, such as *Dis Manes* (instead of *Dis Manibus*) in the funerary inscription from Zmala (Numidia).³⁴ However, having a doubled mention of the spirit-gods, along with the invocation DMS, in the same object raises doubts. Moreover, the epitaph did not contain misspelled terms, so the term MANAS was not likely to be a stonemason's *lapsus*. The personal Libyan name Mana, with the unusual localised ending Bizizi Manan, is epigraphically attested in Africa Proconsularis.³⁵ Explaining its potential relation to the accusative numeral DVAS and understanding the reasons for its placement on the altar are also challenging. Alternatively, the appearance of the formula on the altar, rather than in the epigraphic field of the epitaph, suggests that it may be an abbreviated votive formula, similar to

Punic *nasililim* ('sacrifice for god') or *ex vitulo* in the votive stela of the sanctuary of Saturn at Thignica,³⁶ or to an abbreviation VSLM, *v(otum) s(olvit) l(ibens) a(nimo)* or *v(otum) s(olverunt) l(ibentes) a(nimo)*, altar-inscribed text on Saturn-stelae at Cuicul.³⁷ However, the mysterious Latin formula from the Ain El Gueliane stele is part of a funerary monument, not a votive. There is one more option worth considering. We can assume that the subject is the deceased, Vitellia Quartina. Her epitaph must correspond to the inscription from the altar. The object, the accusative plural MANAS DVAS, depends on some verbal notion that was probably written in the abbreviated form IC (l. 4), perhaps *i(ta) c(onsacravit)* or *i(ta) c(onsacravit)*.³⁸ The exceptional phrase may refer to the infernal Roman goddess Mana (Manae, f.), Genita Mana (or Mana Genita)³⁹. She received, as the goddess of childbirth, the sacrifice of a bitch (puppy). Additionally, she was connected with death and associated with the Manes and the Lares. A Genita Mana was also responsible for stillbirths. Thus, the reference to Genita Mana in the funerary inscription is not surprising, because it 'reminds us of a fundamental application of canine liminality: the transition from life to death and the wider process of coming into being'.⁴⁰ The reference to the goddess Genita Mana was used as a metonymy for her two statues, MANAS DVAS. The metonymy, where the statue of a god or goddess is replaced by his or her name (in the accusative case), was common in Roman literature.⁴¹ For example, the author of *Historia Augusta* quotes Aurelian's letter to the prefect of the city, in which the emperor emphasised: *almam Cererem consecravi* (I have consecrated [a statue] of fostering Ceres).⁴² It seems that the action carved on the altar is the consecration of two statues, perhaps a testamentary disposition of Vitellia Quartina, but this remains a matter of speculation. Although the epitaph does not contain the title *sacerdos*, the iconography presented is analogous to three other objects from the Musti microregion, which allows us to assume that Vitellia Quartina was a priestess.⁴³ Her outfit (its upper part is damaged), consisting of a long tunic and cloak, closely resembles the priestly costume worn by Iulia Rufina, as seen on the Sidi Bou Beker stele. Moreover, Quartina died at the age of 80, which is in accordance with the image of a lifelong priesthood of Ceres/the Cereres in Roman Africa. T. Nuorluoto counted 24 women with the Latin *cognomen* Quartina.⁴⁴ From the mid-1st century AD female *cognomina* with the suffixes -ina became increasingly common.⁴⁵ The following are known from Roman Africa: Caecilia (?) f. Quartina,⁴⁶ Ulpia Quartina,⁴⁷ C[ae]sia Quartina,⁴⁸ Alfidia L. filia Quartina,⁴⁹ Quartina Luci(i) filia.⁵⁰ The Latin *gentilicium* Vitellius is not so common in Africa Proconsularis.⁵¹ Vitellii lived in Thugga⁵² (including the equestrian A. Vitellius Felix Honoratus, who was active in the mid-3rd century).⁵³ From Ain el Ksar (2 km from Thugga) comes an inscription dedicated to Alexander Severus, his mother and his wife, whose dedicator was A. Vitellius Privatus.⁵⁴ Vitellii are also attested in Musti. In August–September 2019, a team of epigraphers inventoried over 140 Latin inscriptions. Among them were two unpublished stelae made of regional limestone that were stored in a cistern (*lapidarium*) within the Byzantine citadel, making their exact provenance unknown. However, they do come from the site of Musti. The first one (Inventory no. 2) is fragmentary, with damage on the right and lower parts (Figure 6). The letters are not regular, carved in rustic capitals (L in the form of lambda). The

invocation DMS and onomastics (lack of *praenomen*) allow us to date the inscription to the end of the 2nd and the beginning of the 3rd c. AD. The present dimensions of the object are: full height, 31 cm; width, 39 cm; depth, 20 cm. The height of the letters is 4.5–5 cm.

D(is) M(anibus) s(acrum). | Vitel(l)ius | Eneas [—].

'To the Spirits of the Dead. Vitel(l)ius Eneas [—].'

The second epitaph (Inventory no. 86) was carved on a stele with a rounded top, made of regional limestone (Figure 7). The letters are regular, carved in rustic capitals. Triangular interpuncts are carved into all four lines. The crescent of the moon and the lack of invocation DMS allow us to date the inscription to the first half of the 1st century AD. The present dimensions of the object are: full height, 84 cm; width, 32 cm; depth, 22 cm. The height of the letters is 4–4.5 cm.

The crescent of the moon

Vitellia L(ucii) l(iberta) | Tiche pia | vixit ann(is) | XXXV.

H(ic) s(ita) e(st).

'Vitellia Tiche, pious, freedwoman of Lucius, lived 35 years. She lies here.'

The Greek *cognomen* Tyche (Tiche)⁵⁵ is popular in Roman Africa, particularly among slaves and freedwomen from Carthage.⁵⁶ The Greek *cognomen* Aeneas (Eneas), by contrast, is unattested in Roman Africa and is very rare, also indicating slaves and freedmen.⁵⁷ Three new members of the *gens* Vitellia – Vitellia Quartina, freeborn woman and priestess of Ceres; Vitel(l)ius Eneas; and Vitellia Tiche, freedwoman of Lucius, who lived a few generations earlier – belonged to the same family and originated from Musti.

4. Monument from Thacia–Bordj Messaoudi (Figure 8)

- a) **Limestone, anepigraphic and funerary (?) monument stored in the Bardo National Museum.**
- b) **Dimensions of object:** h. 100 cm; w. 173 cm.
- c) **Dating:** 2nd–3rd c. AD (relief decoration).
- d) **Edition:** *Catalogue du Musée Alaoui*, ed. Feu du Coudray La Blanchère, P. Gauckler, Paris 1897, C (Sculpture), p. 59, no. 103, Pl. XVI.

Grand funerary stelae – exceptional type of the monument?

The most commented-upon monument has been that from Sidi Bou Beker,⁵⁸ which G. Picard even compared with the anepigraphic funerary aedicula from Mactar.⁵⁹ Only Cl. Poinssot, recalling an unpublished, inscribed monument from Musti, emphasised its similarity to two others from nearby locations: Sidi Bou Beker and Thacia–Bordj Messaoudi (ca. 8 km from Musti).⁶⁰ Meanwhile, L. Ladjimi-Sebaï compared the costumes of priestesses in the stele from Sidi Bou Beker with that from Thacia.⁶¹ The most general description of the Sidi Bou Beker tombstone was given by its publisher, Ch. Saumagne: 'La pierre affecte une forme rectangulaire à sa base [...]; elle s'achève, dans sa partie supérieure, en forme de fronton triangulaire,' although scholars differ in their categorisations of the item.⁶² Cl. Poinssot categorised it as a stele,⁶³ but G. Picard wrote of a relief from the El Krib region or a triangular pediment of a funerary aedicula.⁶⁴ E.A. Hemelrijk classified it as a funerary *cippus*.⁶⁵

Although the studied group of four monuments from the Musti microregion resemble pediments of aediculae in their



Figure 6. The stele from Musti. (photo by R. Selmi).

form, they are smaller. Pediments of aediculae are best exemplified by a monument from the Bou Arada region featuring a priestess (most likely Juno Caelestis) or a (funerary?) aedicula from Mactar.⁶⁶ The group of objects studied from the Musti microregion is a specific group. They are not *cippi*, altars or pediments of aediculae, but grand stelae with a massive rectangular base and triangular fronton.⁶⁷ A similar, though smaller, 'stele anepigrafe con sommità triangolare' (no. inv. I 319) with symbols of the Caelestis cult comes from the neighbouring town Uchi Maius.⁶⁸ The triangular fronton is an architectural reference to the Punic or Neo-Punic tradition.⁶⁹ The physical characteristics of four grand stelae in the Musti microregion stand out. They differ from the more numerous typical stelae with rounded, horizontal and triangular tops, and lack decor; they also differ from various types of *cippi* and other tombstones with specific physical characteristics found in neighbouring (micro)regions, including Thugga.⁷⁰ The fragmentarily preserved unpublished stele from Aïn El Gueliane, although distinguished by its form (without triangular fronton), presents the same type of relief decoration.

Defining the characteristic type of group of funerary monuments is possible in some (micro)regions of Africa Proconsularis. N. Ferchiou described a group of funerary stelae typical of the Bou Arada (Apisa Maius or Minus) region, for instance.⁷¹ These are very high objects (up to 2 m) with specific architectural decoration resembling a complete temple facade (with columns, entablature and pediment), inside which there is a statue (or statues). Outside the Bou Arada region, e.g. in Thugga, these high temple-style stelae are very rare.⁷² In the area between Althiburos and Thugga, a common category of tombstones is small aedicula (*naiskos*), which may have been placed in sanctuaries.⁷³ G. Picard described a group of specific, combined funerary *arulae* and *cippi*, named as 'cippes-autels', from the Mactar region.⁷⁴ In the Simitthus microregion, a

category of tombstones, high 'Menhirstele' with a round or triangular top, typical of this area ('eine regionale monumentale Grabmarkierungsform'), is very distinct.⁷⁵

The examined funerary stelae of the Musti microregion are distinguished not only by their architectural type, featuring a wide rectangular base (over 1.20 m) and a triangular fronton, but also by a specific and repeatable relief composition unique to this area. Consequently, we can infer the existence of a distinct stonecarving practice in this microregion, although the precise details remain unknown. It is possible that these monuments were created in local sculptors' and stonecutters' workshop(s), even though there are variations in paleography and the precision of iconography. However, the material (grey and white limestone) from which these monuments were made comes from local quarries and is noticeable in other epigraphic (especially funerary) monuments from Musti. While the state of preservation varies, the most intricately crafted reliefs, showcasing naturalistic images of pigs and female figures, are observed in the stelae from Sidi Bou Beker and Aïn El Gueliane. On the other hand, the iconography on the stelae from Musti and Thacia is more provisional and abstract, despite these monuments being more damaged. H. Saladin characterised the latter monument as follows: 'Ce monument est excessivement fruste et d'un travail très barbare. Les figures, une fois dessinées et légèrement modelées par un trait gravé sur la pierre, ont été réservées le fond général qu'on a abaissé d'un centimètre et demi, à peu près. Je ne serais pas éloigné de voir dans cette oeuvre barbare, non pas un travail romain, mais un travail punique de l'époque romaine [...]'.⁷⁶

Priestesses of Ceres/the Cereres?

Single symbols presented in stelae from the Musti microregion are widely used in Roman African iconography. *Canistrariae*, fruit

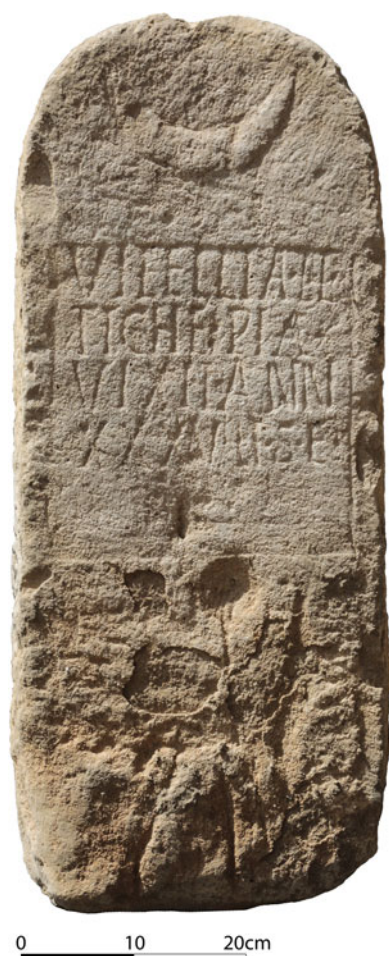


Figure 7. The stele from Musti. (photo by F. Ogidel).

baskets, and torches, as well as grain and snakes, appear on funerary and votive stelae, including those dedicated to Saturn.⁷⁷ Moreover, the representation of the snake was very popular in various African cults.⁷⁸ Various deities with attributes, such as Eros, Bacchus, Hercules, Juno, Ceres/the Cereres, also appear in

African funerary iconography in personified form or through symbols.⁷⁹ A woman offering incense or pouring a libation on a flaming altar is also popular in iconography of Saturn.⁸⁰ For example, in the votive stele from central Tunisia (exact provenance is unknown) dedicated to Saturn a woman stands beside an altar, her right hand over the flames, in the act of offering incense or pouring a libation.⁸¹ However, the female figures depicted are not priestesses but rather the commissioners of the votive stelae. In the Saturn cult, male priests were featured instead of female priests.⁸²

The relief decoration of grand funerary stelae from the Musti microregion stands out. It does not contain personifications of deities or individual symbols, but rather a rich and coherent, almost identical iconographic composition, in the centre of which is the female figure and two sows. The identification of the grand stelae as tombstones of Ceres/the Cereres priestesses and their cult personnel seems justified for three main reasons. First, the title *sacerdos* of Iulia Rufina, along with her epithets *sancta*, *pudica*, *pia*, *castissima matronarum* in the inscription from Sidi Bou Beker,⁸³ corresponds to the exclusive epithet *casta Ceres*⁸⁴ or, in the plural, African *castae/castissimae Cereres*.⁸⁵ Secondly, the title *sacerdos castissima* of Helvia Severa, whose iconography on the funerary cippus features similar motifs, such as a woman sacrificing and a basket-bearing woman (*canistraria*).⁸⁶ Thirdly, Tertullian's account of the chastity (*castitas*) of the African priestesses of Ceres aligns with this identification.⁸⁷ Secondly, it can be assumed that in all four stelae the female figure standing beside the altar is a deceased person. What distinguishes them is a similar priestly outfit, a characteristic robe tied at the waist with a belt and a hood falling over the shoulders and fastened under the chin. L. Ladjimi-Sebaï noted that these specific elements characterised exclusively the costumes of the priestesses of the Cereres.⁸⁸ Thirdly, what is decisive, the four analysed stelae depict two sows, exclusively tied to Ceres in iconography.⁸⁹ The connection between women serving in the cult of Ceres and the sacrifice of sows is well attested by the funerary inscription of the Pompeii freedwoman Clodia Nigella, which was described as *porcaria publica*.⁹⁰ She was probably involved in breeding or selecting sows⁹¹ that were then sacrificed by her patron priestess of Ceres (*sacerdos publica Cereris*).⁹²



Figure 8. The stele from Thacia – Bordj Messaoudi.

The cult of Ceres, the goddess of agriculture, has been a subject of research since the early 20th century.⁹³ The cult was particularly popular in Roman Africa during the Principate period,⁹⁴ undoubtedly due in some part to the exceptional fertility of African grain provinces⁹⁵ and of individual regions (e.g., the region of Bou Arada).⁹⁶ In this part of the Roman Empire, this cult was very distinct, as evidenced by the plural form of the name *Cereres* (Ceres–Demeter and Proserpina–Cora), with a few exceptions confirmed only in the African provinces, and by the existence of local epithets *Ceres punica*, *Ceres maurusia Augusta*, *Ceres africana*,⁹⁷ but also by the existence of male priests associated with the cult.⁹⁸ A particularly popular subject of research is the large group of priestesses of Ceres/the Cereres, who are referred to in the epigraphic records by various titles: *sacerdos*, *sacerdos castissima*, *sacerdos/sacerda magna*, *sacerdos Cererum*, *sacerdos magna Cererum*, *sacerdos Cererum publica*.⁹⁹ V. M. Gaspar counted 97 women associated with various cults in Roman Africa, of which as many as 54 (55.7%) served Ceres/the Cereres.¹⁰⁰ The numerous inscriptions include quite a large group of anepigraphic and epigraphic *cippi* and funerary altars with relief decoration presenting priestesses and the rich symbolism of the cult of Ceres/the Cereres. Cl. Poinssot has prepared a list of 28 monuments (not only funerary) with iconography connected to the cult of the Cereres.¹⁰¹ By gathering and analysing various religious symbols presented on 17 tombstones (mainly *cippi*) with relief decorations of Ceres/the Cereres priestesses from Roman Africa, we will be able to capture the specificity of the unique grand stelae from the Musti microregion.

The objects studied are not the only sources confirming the importance of the Ceres cult in the Musti microregion. We know that the *Cerealicii* college also operated in Musti,¹⁰² which is extremely rare in Roman Africa.¹⁰³ On the occasion of the dedication of the Arch of Commodus in Musti, C(aius) Orfius L(ucii) f(ilius) Cor(nelia) Luciscus funded scenic games (*ludi scaenici*) and organised a banquet for the curia and college of *Cerealicii* (*epulum curiis et Caerealicis*). Moreover, in Musti, under Trajan, there was a temple of the Cereres (*templum Cererum*), and, under Severus Alexander, a statue of Ceres Augusta was dedicated.¹⁰⁴ In Musti, there were also male priests associated with the cult of the Cereres who, though rarely confirmed in the epigraphic records,¹⁰⁵ bore the title *sacerdos Cerealium* or *patronus Cerealium*.¹⁰⁶

Religious symbols in the funerary stones of priestesses of Ceres/the Cereres in Roman Africa

Symbols of the cult of Ceres are attested not only in the funerary iconography of priestesses of Cereres, but also on African tombstones depicting personifications of the Cereres and their attributes, such as the *cippi* of Theveste and Abthugni. In the case of these two monuments the deceased were quite young (Aelia Leporina 39, Domitia L(ucii) fil(ia) Concessa 43, S[—]a L(ucii) fil(ia) Fortunata 18 years), so they do not fit the age profile of elderly priestesses, and none of them was described as *sacerdos*. Iconographic references to the Cereres (in the case of the Aelia Leporina tombstone, also to Juno) probably symbolised loyalty and attachment of the deceased to these goddesses and placing themselves under their protection.¹⁰⁷ The four-sided funerary monument from Theveste, the front of which contains the funerary inscription of Aelia Leporina, presents the specificity of the iconography of the Cereres cult in Roman Africa.¹⁰⁸ Each of the remaining three sides of the stele resembles a temple façade with a triangular pediment and a niche between two pilasters with Corinthian capitals. Each of the three niches contains a personification of the goddess with attributes, which together create a 'triple representation divine'.¹⁰⁹ According to M. Leglay, the back

of the stele presents the image of Juno, whereas the sides present two goddesses: Ceres–Demeter and Proserpina–Cora.¹¹⁰ In the lower part, under the niches with the goddesses Cereres, who are touching a torch with their right hand and holding a small box (*cista mystica* or *capsa*) or an incense box (*acerra*) in their left hand, there are two iconographic compositions. On the left side of the stele (Cora, Figure 9), a pregnant sow is walking rightwards, and in the background there are ears of wheat or barley,¹¹¹ flanked on each side by a basket containing fruit and flowers. In the lower right of the stele (Demeter, Figure 10), a sow, most likely also pregnant, is walking leftwards, and behind her there is a field with plump ears of what is probably wheat.

However, the richest symbolism of the cult of Ceres can be observed in the iconography of the priestesses' tombstones. Of the various symbols of the cult of Ceres, the torch, the basket of fruit, snakes, sacrificial tools, *canistrariae* and ears of cereals, it is the sow that occupies the foreground.¹¹² A constant and major compositional element of relief decoration of the stelae studied is a pair of sows placed either side of the altar, flanked to the left and right by torches. The only similar representation of these symbols, a direct reference to the Cereres, is found in the decoration of a monument from Turratensium in the Theveste region (Figure 11).¹¹³ There, flanked by torches to the left and right, two sows are placed on either side of a basket (*calathos*) that is laden with fruit and covered with a snake. Moreover, this decoration accompanies a sacred inscription dated to 212–217 AD and dedicated to the Cereres and Pluto,



Figure 9. Left side of the Theveste stele (source: Leglay 1956, 40).

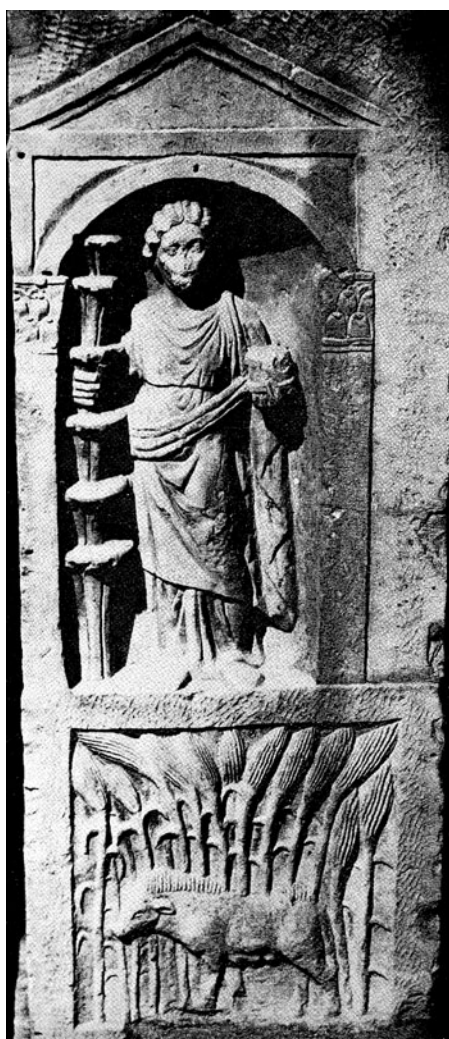


Figure 10. Right side of the Theveste stele (source: Leglay 1956, 38).

and *pro salute* Caracalla and the whole divine house by the Turratenses, and not the funerary inscription of the priestess of the Cereres.¹¹⁴ Two sows are also depicted on the tombstone of the priestess (*sacerdos*) Flavia M. fil(ia) Tertulla from Aïn Maja (near Thala).¹¹⁵ However, it is important to note that this tombstone is a three-sided *cippus*. The two lateral sides of the *cippus* depict one sow each, along with a *canistraria* carrying a basket on her head. A similar iconography, featuring one *canistraria* and one sow on the two lateral sides, can be observed on an anepigraphic, also three-sided, unpublished *cippus* from Mactar.¹¹⁶ Another inscription from Roman Africa also indicates a direct connection between sows and the cult of the Cereres: a sow wearing a laurel wreath and embellished with a ritual dorsal decoration, as *ex voto* offering to the Cereres, is presented in bas-relief with a fragmentary votive inscription from Utica (Figure 12).¹¹⁷

The sacrifice of a sow to the goddess Ceres (or Demeter in the Greek cult) was a ritual practice often described by ancient authors and presented in art.¹¹⁸ This animal served three main functions: as a sacrifice offered cyclically by cult officials; as a cleansing offering that was an element of funeral rituals; and as an *ex voto*. At the end of January, during the *feriae sementivae*, farmers made offerings to Ceres and Tellus – the two *frugum matres* – of the spelt and the entrails of a pregnant sow (*farre suo gravidæ visceribusque suis*).¹¹⁹ While describing the games of Ceres (*Cerēris ludī*), for April 12, Ovid wrote that, in spring, a lazy sow (*ignavam sacrificatē suem*) was sacrificed to the

goddess Ceres.¹²⁰ Furthermore, on January 9, the poet noted: ‘The first to joy in blood of greedy sow was Ceres, who avenged her crops by the just slaughter of the guilty beast; for she learned that in early spring the grain, milky with sweet juices, had been rooted up by the snout of bristly swine.’¹²¹ Cato wrote of a young sow (*porca praecidanea*, *porca femina*) that was to be sacrificed to the goddess Ceres not in spring but in summer; this was to precede the harvesting of spelt, wheat, barley, beans and rape seeds.¹²² Cicero, Varro, Aulus Gellius and Festus also wrote about an obligatory funeral ritual, a cleansing sacrifice of a *porca praecidanea* or *porca praesentanea*, a female pig sacrificed to the goddesses Ceres and Tellus.¹²³ The set of four stelae is unique not only for the African provinces, but also for the entire Roman Empire. Only three funerary reliefs are known from Italy, and these represent priestesses of the goddess Ceres sacrificing a sow on an altar, or contain a representation of a sow alone.¹²⁴

Most of the religious iconographic features that can be identified on the fragmentarily preserved funerary stelae from the Musti microregion are also attested in other funerary stones of Ceres/the Cereres priestesses from Roman Africa and constitute part of the cult’s symbolism. Of the 17 tombstones of the priestesses of the Cereres in Roman Africa (Tab. 1), the sow is depicted in ten cases. Only in the *cippus* from Henchir Sidi Slimane (no. 10) is one sow with a piglet presented. This unique iconographic composition, presenting a piglet falling out of a sow, may be a reference to the sacrifice of the entrails of a pregnant sow, which Ovid wrote about.¹²⁵ Apart from two three-sided *cippi* from Aïn Maja (no. 5) and Mactar (no. 11), in which two sows with *canistrariae* (female basket-bearers) are carved on the two front-facing sides, only four stelae from the Musti microregion feature a frontal representation of two sows, one on either side of the altar, the basket, or the epitaph, slightly below the presented priestess. The sows are depicted in sacrificial imagery, and on each of the stelae (perhaps also from Aïn El Gueliane) a priestess pouring a libation on a flaming altar is carved. An altar (varying in shape) at which the priestess stands is another constant feature of the relief decoration of the stelae from the Musti microregion (nos 1–4), although this symbol is visible in as many as six other tombstones of priestesses of Ceres (nos 6, 10, 11, 13–14, 17). In most cases, the priestess stands at the altar, most often in a sacrificial gesture, but in the stele from Ferme Fritch (near Simitthus) (no. 7) the female figure has her arms crossed, and the priestess depicted in the stele from Sidi Ali Mediouni (Mactar region) (no. 16) holds her hands up: in the right there is a caduceus and in the left there is an ear of corn.

The *canistrariae* were an important complement to the sacrificial scene in the grand stelae from the Musti region. However, they were common in the cults of several deities, not only Ceres/the Cereres.¹²⁶ Long torches of Ceres–Demeter (associated with her search for Proserpina–Cora), often topped with candelabra, are confirmed in several items (nos 1–4, 7, 10–11, 16–17). However, only on the studied stelae are they a constant feature of the decoration, and the torches on each side lead to the basket (*calathos*), which is placed at the very top of the triangular fronton. (However, these symbols cannot be confirmed on the stele from Aïn El Gueliane, due to the object being damaged, no. 3, Fig. 5) A snake or two snakes – an attribute of Ceres (Demeter)¹²⁷ but also a symbol of fertility – wrapped around a basket or torches are attested in six cases, including all four from the Musti microregion (nos 1–4, 9, 16). In the case of stelae, the snakes accompanied the torches and were directed toward the basket located at the top of the triangular fronton. Sacrificial tools (*instrumenta sacra*) associated with the cult of Ceres, such as a set of knives or a triangular knife (*secespita*, *culter*),¹²⁸ a dish (*patera*), a scoop, or tweezers, are carved in several cases (nos 6, 12, 14), but they are not confirmed in stelae from the Musti



Figure 11. The sacred inscription from Turratensium, CIL VIII 16693 = ILAlg I, 3517 (source: https://db.edcs.eu/epigr/bilder.php?s_language=en&bild=SCIL_08_16693.jpg, DOA – 13.11.2023).

microregion. In the stele from Aïn El Gueliane (no. 3, Fig. 5), a *canistraria* holds in her left hand a downward-pointing object with a branched end that resembles an *aspergillum*.¹²⁹ Interestingly, an important attribute of Ceres/the Cereres – ears of cereals – appear quite rarely in the decorations of the tombstones of priestesses of the goddess(es). They are confirmed in only five cases (nos 2, 9, 10–11, 13), but they are represented most fully as a bunch of ears of cereals in the Sidi Bou Beker stele (no. 2, figs 3–4). The ears shown are most likely to be of wheat. Furthermore, the sows featured in this stele are shown holding some plants, possibly leaves like laurel leaves, in their mouths,¹³⁰ a unique element in Roman visual culture.¹³¹ These are certainly not the boar tusks that Ch. Saumagne wrote about.¹³² Furthermore, in the Thacia-Bordj Messaoudi stele, in the lower part of the decoration, between sows, there is a large basket full of fruit, vegetables and bread, which is entirely unique for such monuments.

Such a large concentration of agrarian motifs and similar relief decoration in the funerary stelae from the Musti microregion – and especially the unique image of two sows between the altar and the priestess – cannot be a coincidence. The stelae in question, whose iconography draws fully from Greek and Roman culture, are rooted in the local context, and the stonemasters, expert sculptors, were operating in a specific and regional context with

its own distinctive features.¹³³ However, we know nothing about the individuals involved in the creation of any of the above-mentioned stelae, including their designer(s), commissioner(s), or, finally, local stonecutter(s)–sculptor(s). Undoubtedly, the rich relief decoration of these four objects reflects the fertility and agrarian character of the Musti microregion in the times of the early Roman Empire, which is confirmed by the latest environmental research.

Environmental analysis

The rich and detailed epigraphic and iconographic sources provide a solid foundation for the suggestion that the stelae, which are the subject of the study, are significantly related to the cult of Ceres/the Cereres. They also fit perfectly into the highly agricultural character of the microregion mentioned in the historical sources. It is therefore interesting to note the environmental background obtained from the analysis of fossil plant and animal remains collected during excavations in Musti. However, it is important to note some aspects related to these studies. Despite the rich data on the Roman history of the site, there are not many archaeological, and thus environmental, results. This is because cultural layers representing the Roman period were partially removed from the town in the late-antique/medieval period



Figure 12. The fragmentary votive inscription from Utica, ILPBardo 435 = CIL VIII 25378 (photo by K. Kłodziński, the Bardo National Museum).

and then again during excavations in the 1960s. Archaeobotanical or archaeozoological discussion is also limited because in the vicinity of Musti there are no archaeological sites where plant or animal remains have been analysed. It would be better to look at the nature of the local environment. The only sites in Tunisia that provided interesting data of this kind are located relatively far from Musti, and their chronology is not always related to the Roman period.¹³⁴ Despite such limitations, the archaeobotanical and archaeozoological results obtained so far are a very important addition to the overall picture of Musti's functioning.¹³⁵

The environmental data included in the analysis are derived from archaeological strata excavated in the central part of Musti, near the Roman road traversing the city and the *forum transitorium*, including on buildings adjacent to the so-called Temple of Apollo and the area of the so-called Temple of Ceres. Each of 14 discovered contexts represents the typical useful layers that lie within the city's boundary. Among these, in only one case were no plant remains found. In the remaining contexts, mainly charred or mineralised seeds and fruits were recorded. A small number of finds is normal for archaeological sites in the region of North Africa. This is primarily an effect of natural conditions, largely climatic, which impede the preservation of uncharred plant remains. The list of taxa from Musti includes 18 determinations representing mainly useful plants (Table 2). The group 'other plants' contains plants belonging to the ruderal and segetal communities developing near the city.

The material is dominated by remains of cereals, mainly wheats (*Triticum aestivum/durum*, *T. cf. dicoccon*). It is worth noting that wheat was preserved not only in the form of charred grains but also rachis. This may indicate that cereal came to Musti in the form of cleaned product (grains), but also ears, which were then processed on site. It can be assumed that the cereals used in the town came from the surrounding fields. Ears of cereals, most likely wheat, were also preserved on an unpublished architectural element from Ain El Gueliane, perhaps presenting a hunting scene, documented during the survey in 2019 (Figure 13). This may be further proof of the presence of cereals in the microregion of Musti and the significant symbolism of this group of plants for the inhabitants. Apart from the wheat, single remains of barley (cf. *Hordeum vulgare*) and oats (cf. *Avena* sp.) were found in the archaeobotanical samples. In the latter, the wild form of oats cannot be ruled out because the determination was based on awn remains.

The group of fruits contains remains of both cultivated plants and those collected from the wild. In terms of the number of finds, the remains of fig (*Ficus carica*) dominated, preserved both in charred and mineralised form. Next to them, single remains of grapevine (*Vitis vinifera*) preserved in the form of seeds and stalk were found. Fruits of both plants could be eaten fresh or after processing. What is surprising is the fact that the material from Musti contains few traces of olive (*Olea europaea*). It is possible that its remains represent fruit that were transported to the city for direct consumption and had nothing to do with the obtaining of oil. It is worth adding that the architectural fragment from Ain El Gueliane also contains an image of a small tree (Figure 13). Unfortunately, its state of preservation and the lack of diagnostic features do not allow us to determine precisely whether we are dealing with a fig tree, an olive tree or a palm tree.

Apart from the typical cultivated species, remains of myrtle (*Myrtus communis*) were also noted. This is an evergreen perennial shrub or a small tree that is widespread throughout the Mediterranean region and the Middle East.¹³⁶ Myrtle usually grows wild, but it cannot be ruled out that the remains from Musti represent cultivated ones. This is because of its aromatic properties, edible fruits, fragrant white flowers, evergreen and culinary leaves and uses in traditional medicine.¹³⁷

Table 2. Listing of the taxa recorded in the contexts dated to the Roman period. * – cultivated plant or weed, C – charred, M – mineralised.

taxa	description	number of contexts/ number of finds
cereals		
Cerealia indet. cereals	grain ^C	11/33,5
cf. <i>Avena</i> sp.* oat	awn ^C	1/1
cf. <i>Hordeum vulgare</i> barley	grain ^C	1/3
<i>Triticum aestivum</i> common wheat	grain ^C	1/4
<i>Triticum aestivum/durum</i> common wheat/durum wheat	rachis ^C	5/11
	grain ^C	3/5
<i>Triticum</i> cf. <i>dicoccon</i> emmer	grain ^C	1/1
<i>Triticum</i> sp. wheat	rachis ^C	2/4
	grain ^C	2/2
fruits		
<i>Olea europaea</i> olive	stone ^C	4/7,5
<i>Ficus carica</i> fig	fruit ^C	6/22
	fruit ^M	4/29
<i>Vitis vinifera</i> grapevine	seed ^C	1/1
	pedicel ^C	1/1
<i>Myrtus communis</i> true myrtle	seed ^C	2/3
pulses		
<i>Lens culinaris</i> lentil	seed ^C	1/1
<i>Vicia ervilia</i> * bitter vetch	seed ^C	1/1
other plants		
<i>Malva sylvestris</i> common mallow	fruit ^C	2/3
Malvaceae indet. mallows family	fruit ^C	1/1
Plantaginaceae indet. plantain family	seed ^C	3/4
Poaceae indet. grasses family	grain ^C	1/1
cf. Rubiaceae indet. mader family	fruit ^C	1/1

In the past, legumes were second only to cereals in importance for consumption.¹³⁸ Pulses, generally cultivated and easily collected, do not need any tool and ripen earlier than cereals, and most of them can be eaten before they ripen, when they are still green. However, their finds in the form of accumulation on archaeological sites are usually rare. This reflects the poorer preservation potential and underrepresentation of legumes in archaeological contexts.¹³⁹ We also face such a situation in Musti. In the material dated to the Roman period, only a single find of lentil (*Lens culinaris*) and one of bitter vetch (*Vicia ervilia*) were noted. The former is one of the first domesticated grain crops. Lentil seed is an excellent source of energy, dietary protein, fibre and micronutrients.¹⁴⁰ Seeds of bitter vetch have toxic properties, so may not have been intended for human consumption but used as fodder or famine food.¹⁴¹

Animal remains were discovered in nine out of 14 contexts discussed in a total number of 310 fragments (Table 3). However, most contexts contained a small number of remains. Their state of preservation was relatively good. Despite the desiccation that



Figure 13. The fragmentary (upper part?) of an architectural element from Ain el Gueliane (photo by K. Kłodziński).

caused the crumbling of the bones, only 19% of the bone fragments were not identified. They were typical kitchen waste with numerous bones bearing the marks of chopping, cutting and dismembering. The animal remains chiefly came from domestic animals, and no game remains were found. Additionally, in one of the contexts, the remains of a dove that probably died naturally there were found. Other remains that did not belong to livestock were from a turtle. They too were located in a single context, so they could probably have come from the plastron and carapace of a single individual turtle, cf. *Testudo* sp.

Livestock from Musti was represented by four main species: sheep, goat, pig and cattle. Sheep and goats are the most characteristic animals kept in Northern Africa because of their high tolerance for poorer-quality forage and smaller amounts of water (goats, in particular, are well adapted to weaker environmental conditions). Their husbandry is relatively easy and requires few breeding procedures. Instead, these animals provide primary (meat) and secondary (milk, wool) products. The proportion of sheep to goat remains was 5:1. Similar predominance of sheep remains was also recorded at the other sites in Tunisia in the

Roman period.¹⁴² The ovicaprine remains came from young and adult animals, indicating their husbandry in the area. The presence of lamb and goat kid remains among the kitchen waste of the inhabitants of Musti suggests a demand for delicate meat and well-developed breeding with a surplus of young individuals.

On the other hand, the pig was an animal rarely kept in significant numbers in Tunisia, especially in the pre-Roman (Phoenician) contexts. Their greater importance is linked to the influence of the Roman Empire.¹⁴³ According to some authors, pork was an important part of the Roman diet.¹⁴⁴ However, in Northern Africa, where the temperatures reach 40 degrees, pigs are not easy to raise, as they are susceptible to heat stress because they have few functional sweat glands. It is interesting to note that pigs also need more drinking water than other livestock. Research shows their presence in Tunisia during earlier times. In neighbouring areas, pigs were bred even in the Neolithic period in considerable numbers.¹⁴⁵ However, the Phoenician settlement caused pigs to be considered unclean and their breeding in this region to lose importance.¹⁴⁶

Pig remains recorded in Musti were abundant even compared with other bone materials from the Roman sites. Only at sites such as Carthage and Althiburos was their frequency similar to that in Musti, reaching over 30%.¹⁴⁷ Their share was much lower in the nearby Zama region than in Musti: less than 9%.¹⁴⁸ The preserved remains did not allow an analysis of animal morphology due to their fragmentation. However, by comparing them to the reference collection, it seems that they belonged to small or medium-sized individuals, but it is uncertain whether they originated from a large pig or a wild boar. The current range of the wild boar, the wild ancestor of the pig, includes, among others, the northern Mediterranean coast of Africa. Wild-boar hunting was known from Roman times in Tunisia, and it is depicted in mosaics from Carthage and Radez, among other sites.¹⁴⁹ Unfortunately, epigraphic or iconographic data are not helpful in determining exactly which animals could have been bred or kept in the Musti area. Authors commenting on iconography on tombstones mention a pig, sow, or wild boar.¹⁵⁰ G. Picard had doubts about the identification of the animal from the Sidi Ali Mediouni stele (no. 16).¹⁵¹ A similar doubt applies to the remaining tombstones discussed above. The stelae from the microregion of Musti are also inconsistent in their depiction of these animals. The stelae from Musti (no. 1) (Figure 2) and Ain el Gueliane (no. 3) (Figure 5) show animals with smooth fur and without the characteristic bristle, while the stelae from Sidi Bou Beker (no. 2) (Figure 3) and Thacia – Bordj Messaoudi (no. 4) (Figure 8) most probably show animals with the bristle. The bristle is characteristic of a wild boar and may also occur in the primitive form of a pig. According to M. MacKinnon, in the case of pigs mentioned by Roman authors, there are two types: larger, ‘smooth-skinned, great-bodied, large hips, white-bellied, long in shape, ample and round; pastured in warmer, sunnier regions’; and smaller, ‘smaller-sized; hard, dense, black bristles; similar to wild boar’.¹⁵² It seems, therefore, that the remains from the Roman contexts at Musti could have represented both these forms, taking into consideration the archaeozoological and iconographic data. However, there is also a probability that a large ulna discovered could have belonged to a wild boar.

Almost a third of the bones were from young animals (Figure 14). The interpretation is similar to the case of the remains of the young ovicaprines. However, the pig is kept for only one purpose (meat) and is a very fertile animal. It can birth ten or even more piglets in an annual litter. Therefore, youngsters not needed for further breeding (especially males) can easily be destined for consumption. The meat of piglets is known for its delicacy. It is important to note the appearance of five foetal/neonatal pig bones in three contexts dated to the

Table 3. Animal remains from the contexts dated to the Roman period.

	n.	%
Sheep/goat (<i>Ovis aries</i> / <i>Capra hircus</i>)	81	35.1
Sheep (<i>Ovis aries</i>)	10	4.3
Goat (<i>Capra hircus</i>)	2	0.9
Pig (<i>Sus domestica</i>)	78	33.8
Cattle (<i>Bos taurus</i>)	54	23.4
Horse (<i>Equus caballus</i>)	4	1.7
Donkey (<i>Equus asinus</i>)	1	0.4
Dog (<i>Canis familiaris</i>)	1	0.4
TOTAL Mammals	231	100
turtle (<i>Testudo</i> sp.)	3	
dove (Columbinae)	17	
TOTAL Identified	251	
indet.	59	



Figure 14. Share of young pigs in different stages of bone and tooth development process (by U. Iwaszczuk).

Roman period, one of which was confidently from a foetus. Although the high perinatal mortality may be the result of poor rearing conditions for these animals, the presence of these bones is interesting in the context of the rituals described by Ovid (*Fast.* I, 671–72), in which pregnant sows were sacrificed to Ceres. In addition, depictions of pregnant sows are known from the tombstones from Aïn Maja (no. 5), Hr Sidi Slimane (no. 10) and perhaps Sidi Ali Mediouni (no. 16).

Cattle husbandry requires a large amount of water. The animals also need an extended breeding period before they reach their target weight, and they usually have only one calf per litter. It also takes time before they can perform as draught animals (usually about four-year-old animals are morphologically mature and can be used for work). That is why the lower percentage of their bones is not surprising. The lesser importance of cattle is also characteristic of other Tunisian sites from the Roman period.¹⁵³ As in the case of ovicaprines, the remains of cattle came from young and adult animals. However, the calves were older than the lambs and goat kids. The bone of the most immature calf belonged to an individual between 15 and 18 months old, while the other remains came from subadult and adult animals.

The remains of transport animals (horses, donkeys) and dogs were very few, which is also typical of the other Roman sites in Tunisia.¹⁵⁴ The bones came from adult animals, showing that they belonged to animals used for traction or riding rather than for their meat. There were no post-consumption marks on these bones, which may be an additional confirmation of this thesis.

The archaeobotanical and archaeozoological data obtained constitute an important background for the stelae discussed. Finds of cereal remains emphasise the fundamental role of this group of plants in the local agricultural economy. This is a phenomenon that persists both before the Roman period as well as in the final stage of Musti. The archaeozoological material, containing almost exclusively livestock remains, indicates a significant interest in farming. Environmental results, although related to the typical urban character of the site, indicate a significant attachment of the inhabitants of Musti to agricultural activities. The results of the environmental analyses seem to be consistent with the iconographic and epigraphic studies in many aspects.

Summary and conclusion

This article represents a comparative systematic study of historical, epigraphical, iconographic and eco-factual data from the Musti microregion and North Africa. This approach to the interpretation of past results is rare. To date, no such research has been conducted for nearby Dougga (Thugga), which has been systematically studied since the beginning of the twentieth century.¹⁵⁵ This may be due not only to the lack of archaeobotanical or

archaeozoological finds, but also to the problem of identifying the presented plants or animals. Environmental research indicates a developed agricultural economy at Musti. It can be assumed that agriculture was mainly based on growing cereals and breeding animals, including pigs. Cereals, chiefly wheat, were used to make bread as a main part of the Roman diet. Livestock were the only sources of meat, and our research indicates that the diet was not supplemented with meat from game animals or fish.

The iconographic analysis of the studied stelae from the Musti microregion appears to correspond with the environmental research. Individual symbols, particularly depictions of fruits, vegetables and cereals, may be linked to the botanical remains discovered at the Musti site. Based on the faunal data that show the exceptional abundance of pigs, it can be concluded that the unique representation of two sows in iconography does not have to be an artistic vision or a reference to cult symbolism but rather an emphasis on the high availability of these animals in the local market and/or the fertility of the cereal microregion of Musti. It is not only about the exceptional representation of two sows on one face of a monument, but also the fact that in one of the stelae the sows hold some plants, possibly leaves like laurel leaves, in their mouths, a unique detail in African iconography: therefore, a microregional iconography (cereals, fruit, vegetables, loaves of bread, pigs) grounded in lived experience, lifestyle and agricultural production.

The functioning of the local community, in this case the priestesses of the Cereres, their families and stonecutters, was conditioned by the local economy, the availability of food products and the proximity of numerous private and imperial domains, and it also reflected the ritual practices of these priestesses. Their details are not well known, but the sacrifice of a sow certainly was an important part of that ritual. Although local stonecutters and sculptors adhered to cultural and religious conventions in presenting relief decorations, they had some creative freedom in their representations. The local environment, coupled with the desire to emphasise architectural and artistic uniqueness, probably played a significant role in inspiring their choices for the distinctive tombstone type and specific relief decoration. It cannot be ruled out that artistic inspiration may have also originated from the priestesses themselves or their family members. Unfortunately, the commissioners of these funerary objects remain unknown. We also know little about the priestesses themselves. Two of them, Iulia(?) O[—] and Iulia Rufina, belonged to the same family of Iulii. Vitellia L. f. Quartina was freeborn. Their Latin *cognomina*, Rufina and Quartina, are not exceptional, although the priestesses of the Cereres from Roman Africa also had Punic (Aemilia Amotmicar – CIL VIII 12335 = ILTun 649, Biricbal Iurat – AE 1935, 34) and Libyan names (Caecilia Zaba – CIL VIII 10575). While the set of four similar

monuments from the Musti microregion is not as extensive a sample as the dozen or so high funerary stelae from the Bou Arada region, it provides valuable insight into the distinct stone-carving practice in the Musti microregion. In this context, the grand stelae with a rectangular base and triangular pediment stand out from other many tombstones (mainly *cippi* and high altars) of priestesses in Roman Africa.

The cult of Ceres was widespread on both sides of the *fossa regia*, especially in the Campi Magni cereal area.¹⁵⁶ Based on the geographic distribution of the epigraphic records of the priestesses of the Cereres, it can be concluded that their activities were concentrated on the western side of the *fossa regia*, in the former area of the Numidian kingdom (*Africa Nova*), where the protection of exceptionally fertile lands was most needed.¹⁵⁷ However, the popularity of Ceres distinguishes Musti and its microregion, particularly as regards the activities of the priestesses of the Cereres. The four grand funerary stelae of the priestesses, as well as the funerary *cippus* of *sacerdos Cererum publica* recently discovered by members of the Tunisian–Polish Archaeological Mission,¹⁵⁸ come from Musti and the immediate vicinity. The priestesses of the Cereres are not attested in the neighbouring cities of Uchi Maius and Thugga.¹⁵⁹ Although two women are confirmed in the latter city, Mundicia Fortunata sacerdos (CIL VIII 26447 = MAD 1579) and Vetula Saturnini sacerdos (CIL VIII 26477a = MAD 1607), it is not certain that they were priestesses of Ceres/the Cereres. They have single titles and their tombstones do not contain any additional relief decoration. Accumulation of richly decorated *cippi* of priestesses of Ceres/the Cereres similar to those of the Musti microregion can only be observed in other areas with developed agriculture, such as the Mactar region (ca. 50 km from Musti) and in the Bou Arada region (ca. 40 km from Musti).

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Abbreviations

AE	– <i>L'Année épigraphique. Revue des publications épigraphiques relatives à l'antiquité romaine</i> , Paris 1888–.
CIL	– <i>Corpus Inscriptionum Latinarum, consilio et auctoritate Academiae Litterarum Regiae Borussicae editum</i> , Berlin 1863–.
DFH	– <i>Dougga, fragments d'histoire: choix d'inscriptions latines éditées, traduites et commentées</i> , Ier–IVe siècles, eds M. Khanoussi, L. Maurin, Bordeaux 2000.
EDCS	– <i>Epigraphische Datenbank Clauss-Slaby</i> .
IL Afr	– <i>Inscriptions latines d'Afrique (Tripolitaine, Tunisie, Maroc)</i> , eds R. Cagnat, A. Merlin and L. Chatelain, Paris 1923.
ILAlg I	– <i>Inscriptions latines de l'Algérie</i> , vol. I. Inscriptions de la Proconsulaire, ed. S. Gsell, Paris 1922.
ILAlg II,3	– <i>Inscriptions latines de l'Algérie</i> , vol. II.3. Inscriptions de la Confédération cirtéenne, de Cuicul et de la tribu des Suburbures, eds H.–G. Pflaum, X. Dupuis, Paris 2003.
ILPBardo	– <i>Catalogue des inscriptions latines païennes du Musée du Bardo (= Collection de l'École française de Rome 92)</i> , ed. Z.B. Ben Abdallah, Rome 1986.

ILTun	– <i>Inscriptions latines de la Tunisie</i> , ed. A. Merlin, Paris 1944.
IRT	– <i>The Inscriptions of Roman Tripolitania</i> , eds. J. M. Reynolds, J. B. Ward Perkins, Rome 1952.
MAD	– <i>Mourir à Dougga. Recueil des inscriptions funéraires</i> , eds M. Khanoussi, L. Maurin, Bordeaux–Tunis 2002.
PFOS	– M.-T. Raepsaet-Charlier, <i>Prosopographie des femmes de l'ordre sénatorial (Ier–IIe s.)</i> , Lovanii 1987.
RSAC	– <i>Recueil des notices et mémoires de la Société Archéologique du Département de Constantine</i> , Paris 1863.
Uchi II	– <i>Uchi Maius 2. Le iscrizioni</i> , ed. A. Ibba, Sassari 2006.

Notes

- For literature on Musti, see Desanges *et al.* 2010: 182–83; Beschaouch 2014: 1585–95. Two alternative forms of the city's name – Musti/Mustis – are confirmed in the sources, but Musti appears far more often, Beschaouch 1965–66, 125–29.
- Atlas archéologique de la Tunisie*, 2e série, Paris 1914, 1/100,000, f. 25, Jama, no. 3.
- Misiewicz, Hajji, Waliszewski 2018, 207–22.
- About the territory of Musti (*publica Mustitanorum*), see Abid 2021, 304–25; Kłodziński 2023, 269–83.
- González Bordas, Chérif 2018, 1423–53; Chérif *et al.* 2021, 457–86. See also Abid 2016, 99–114; Kłodziński 2020, 305–12.
- CIL VIII 16411 = *ILTun* 1568. See Saumagne 1927, 103–8.
- Carton 1895, 59: ‘Son territoire était en la possession d'au moins deux villes: Dougga et Musti.’
- Sethom, Kassab 1981, 83–104; Lassère 2015, 459–60; Kehoe 2020, 500–5.
- Abid 2016, 99–114.
- Saumagne 1928–29, 693–96.
- MacKinnon 2018, 275–81.
- MacKinnon 2018, 275.
- MacKinnon 2018, 276.
- Buonopane, Riso 2020, 205–21.
- An exception is the recently published article on the *Pupput* necropolis, which combines various published data (determination of bones, terracotta figurines, iconography of *mensae*) and new archaeozoological studies on animal bones. See de Larminat, Lepetz 2021, 409–18. In a broader perspective, research on the Roman period in Tunisia also included the analysis of archaeozoological data with textual and iconographic evidence; see Azaza, Colominas 2020a, 1–9.
- The Bardo National Museum has been closed for a long time, making access to this monument impossible, so the content presented herein is based on an old drawing published in the *Catalogue du Musée Alaoui* (Fig. 7).
- For information on the iconography of the cult of Ceres in Roman Africa, see, for example, Picard 1954, 85–89; Poinssot 1959–60, 110–11; Picard 1970, 195–7; ILPBardo 25.
- ILAlg I, 2219.
- EDCS 161.
- AE 1999, 1777–1778.
- Gifford-Gonzalez 2018; Hillson 2005, 207–56; Schmid 1972, 75; Lutnicki 1972; Prummel 1987.
- Lassère 1973, 41, 54.
- MAD, p. 656: ‘Iulius est assurément le gentile le plus répandu à Dougga, comme dans beaucoup d'autres cités africaines’; Moore 2007, 95: ‘While two of the attested early Roman mausoleum owners had apparently been immigrants, most of the names from the mid-Roman period reflect typical nomenclature for Roman Africa: the *nomen* Iulius accounts for approximately one-third of the family names [...]’.
- CIL VIII 16419. Further, see M. Abid, K. Kłodziński, *La gens Iulia à Musti (El Krib, en Tunisie) et ses environs à l'époque romaine d'après les témoignages épigraphiques (in progress)*.
- Battisti, Pepe, de Vos Raaijmakers 2016, 48.
- Battisti, Pepe, de Vos Raaijmakers 2016, 48: ‘174 members with the *nomen* gentile Iulius lived in Thugga, Thibursicum Bure, Agbia and the countryside contained in map 33 (640 km²) of the *Carte Nationale des Sites Archéologiques et des Monuments Historiques de Tunisie*.’
- Saumagne 1928–29, 694.

- 28 Pikhaus 1994, 95, A132.
- 29 Nuorluoto 2023, 193: 'Rufa, in particular, became a fashionable name in the late republican and early Imperial period (as is evident from the 26 cases in this investigation alone), and in the course of the Imperial period the suffixed form *Rufina* came to be even more popular.'
- 30 Kajanto 1965, 229; Nuorluoto 2023, 328.
- 31 *CIL* VIII 27097 = *MAD* 906.
- 32 *CIL* VIII 15930; 16096.
- 33 *PFOS* 38.
- 34 *RSAC* 1901, 308, no. 21: Dis Manes | C(aius) Annus.
- 35 *AE* 2000, 1658.
- 36 *CIL* VIII 14950; VIII 14987; VIII 15072; VIII 15075; VIII 15095; VIII 15115; VIII 15169. See Leglay 1966, 27.
- 37 *ILAlg* II/3, 7707, 7719, 7729, 7737.
- 38 The proper form *consecravit* is well documented in sacred and funerary inscriptions from Roman Africa. See, e.g., *IRT* 714: Dis Manibus | Iuliae Clyme|nis uxori | M(arcus) Aemilius | Athictus | consecravit; Benseddik 2010, 26: Aesculapium arg(enteum) | libris quinque et sen(is) | Aquis Aptuccensium, | Aemilia Tertulla Marciana | Cornelia Rufina Africana|na, c(larissima) f(emina), consecravit eadem|que Marciana signum mar|moreum Aesculapi(i) d(onum) d(edit); *IRT* 1059 = *AE* 1972, 677: aram Cerei | consecravit; *CIL* VIII 24530 = *ILTun* 958: aram consecrav[it]; *CIL* VIII 10589: aram | consecravit; *AE* 1967, 546a: formam tituli | veteris et litterarum restituit || et consecra[vit]; *AE* 1915, 26: C(aius) Prastina | Messalinus | cum suis conse|cra-vit piscinam | Aesculapio | et Hygiae.
- 39 Plin. *HN* 29.14.58; Plut. *Quaest. Rom.* 52,277a; Graf 2004, 755–56.
- 40 Tutrone 2019, 85.
- 41 Further, see Awianowicz 2020, 139–40.
- 42 SHA, *Aurel.* 47, 3.
- 43 However, this picture seems to be more complex. See Hemelrijk 2015, 83–85 (further reading therein).
- 44 Nuorluoto 2023, 337. Cf. Kajanto 1965, 293, who put the number at 21.
- 45 Nuorluoto 2023, 77–78.
- 46 *AE* 1909, 164 (Carthago).
- 47 *AE* 1981, 988 (Caesarea Mauretaniae).
- 48 *CIL* VIII 10487 = *IRT* 237 (Oea).
- 49 *CIL* VIII 1289 (Vallis).
- 50 *ILAlg*. I, 2964 (El Hamascha).
- 51 There is a funerary inscription from Pheradi Maius with a unique, slightly different form of *gentilicium* – Vittelia, *ILTun* 1570; Ben Abdallah, Ladjimi-Sebaï 1983, 21.
- 52 Vitellius Crispinu(s) (*MAD* 1296); A. Vitellius Felix Victorianus (*MAD* 1297); Vitellius Ianuarius (*MAD* 1298); L. Vitellius Victor (*MAD* 1299); Vitellia Prima, Primi filia (*MAD* 1610).
- 53 *CIL* VIII 26582 = *DFH* 70.
- 54 *CIL* VIII 26548 = *ILTun* 1412 = *DFH* 14.
- 55 *ILPBardo* A 51 (p. 266); Kajanto 2003, 479–85; Abid 2017, 261.
- 56 *CIL* VIII 12641; VIII 12737; VIII 12943, VIII 13148; VIII 24832 = *ILPBardo* 51. See also Abid 2017, 261. Cf. *CIL* VIII 22977 (Hadrumetum); *CIL* VIII 5248 = *ILAlg* I, 50 (Hippo Regius); *ILAlg* I, 94 (Hippo Regius).
- 57 Kajanto 2003, 497.
- 58 Picard 1970, 196–97. Lastly, see Hemelrijk 2015, 378.
- 59 Saumagne 1928–29, 693–96; Picard 1954, 187–88. Most publications (e.g., Ladjimi-Sebaï 2011, 50, no. 84) are based on a provisional drawing by Saumagne 1928–1929, 695, Fig. 1. A photo of this object by Cl. Poinssot was published by Picard (1970, 196, Fig. 2).
- 60 Poinssot 1959–60, 109: 'La forme de la stèle est analogue à celles de Sidi Bou Beker et de Thacia.'
- 61 Ladjimi-Sebaï 2011, 200.
- 62 Saumagne 1928–1929, 694. See also Ladjimi-Sebaï 2011, 50: 'Pierre rectangulaire à la base, et dont le sommet en triangle figure le fronton d'un temple; ornée d'un bas-relief.'
- 63 Poinssot 1959–60, 109.
- 64 Picard 1970, 196.
- 65 Hemelrijk 2015, 378. This identification seems the least appropriate, although it is worth emphasising that the definition of a funerary *cippus* is fluid. See Cooley 2012, 380: '*cippus*, often used vaguely as a catch-all category covering a whole variety of monuments (altar, base, milestone, boundary-marker, stele), but really a plain squat marker with rounded or rectangular top, fixed into the ground; may have a hole towards the bottom for securing it in the ground'. In relation to Proconsular Africa, the definition of a funerary *cippus* is more detailed. Cf. *MAD*, p. 53: 'Comme l'a fait Louis Poinssot, nous apellons cippes les monuments inscrits dont l'architecture et le décor sont généralement les suivants: dé dont la face 1 porte l'inscription, au-dessus d'un socle et au-dessous d'un plateau porté par une corniche et surmonté d'un couronnement; l'épaisseur est très proche de la largeur.'
- 66 Ferchiou 1998, 57–63; Picard 1970, 196–97.
- 67 Cf. Table 1. *Religious symbols in the funerary stones of priestesses of Ceres/the Cereres.*
- 68 Ibba 2006, 30 (with the photo of the object).
- 69 M'Charek 1982, 34–35.
- 70 *MAD*, p. 51–57.
- 71 Ferchiou 1981, 141–89.
- 72 *CIL* VIII 27331 = *MAD* 1517 (pl. 159). Cf. *MAD* 1516 (pl. 158).
- 73 Ferchiou 1989, 327–43; Ardeleanu, Chaouali, Eck, von Rummel 2019, 294.
- 74 Picard, Le Bonniec, Mallon 1970, 139, 144–46. M'Charek (1982, 82) enumerated 26 'cippes-autels' from Mactar.
- 75 Ardeleanu, Chaouali, Eck, von Rummel 2019, 286–88.
- 76 Saladin 1892, 553–54.
- 77 Leglay 1961, 233–34, 241, 355–57, 443.
- 78 Leglay 1957, 338–57.
- 79 Leglay 1961, 233–34.
- 80 Leglay 1966, 161–63.
- 81 Leglay 1961, 224, no. 2 and pl. VIII, fig. 1 (British Museum, no. 125115).
- 82 Leglay 1966, 375.
- 83 Drine 1994, 177–78; Hemelrijk 2015, 87.
- 84 Stat. *Silv.* 4, 3, 11; *Vitr.* 1, 7, 2.
- 85 *AE* 1953, 48 (Mactaris): Apollo Genius | Libero P[atrio] | Cereri ca[stae]; *CIL* VIII 11306 (Cillium): [---] | sacerdoti Magn(a)e | Cererum castis[sim(a)e] matri caris[sim(a)e] cur[a] ege[runt] fili(i) eius.
- 86 *CIL* VIII 591 = *ILTun* 504 (Hr Jenoun): D(is) M(anibus) s(acrum). | Helvia Severa, sacerdos cas[ti]ssima annis LXXXV vixit iudicio, | senuit merito, | ob(i)it exemplo. | [Hic] pietatis honos veteris stat gratia fact[i(?)]. | L(ucius) Fabricius Gemellus | inpar matri | observantissimae.
- 87 In writing about the purity of pagan priestesses, Tertullian, a contemporary of the Severans, admired the aged women serving the African Ceres, Tert. *De exhort. castitatis* 13, 2: *feminas vero Cereri Africanae, cui etiam sponte abdicatedo matrimonio assenescent.* Cf. Tert. *Ad uxorem* 1, 6, 4. For more on the long-term service, chastity, or temporary sexual abstinence of the Cereres priestesses in Roman Africa, see Drine 1994, 177–81; Spaeth 1996, 114–16; Hemelrijk 2015, 89–93.
- 88 Ladjimi-Sebaï 2011, 199–202.
- 89 The sow does not appear in the iconography of other cults, perhaps as an artistic emphasis on the region's fertility. Cf. considerations of the syncretic iconography (dove, bull, pig or boar, rosettes, personifications of Juno, Luna and Sol), Ferchiou 1998, 60–62.
- 90 D'Ambrosio, De Caro 1983, 50S.
- 91 Savunen 1997, 138.
- 92 *CIL* X 1074a.
- 93 Toutain 1907, 346–59; Audollent 1912, 359–81.
- 94 Cadotte (2007, 348–52) counted as many as 88 African inscriptions mentioning the name of this goddess in various configurations. Meanwhile, Drine (1994, 174) counted 115 inscriptions from Roman Africa related to Ceres, the Cereres, *Cereales*, and *sacerdotes magna*.
- 95 Columella, *Praef.*, 24; Plin. *HN* 15, 8; 18, 21.
- 96 Ferchiou 2000, 72: 'Ces dernières [Cereres] devaient être particulièrement honorées dans ces riches plaines à blé que sont les régions de Fahs/Bou Arada, car un nombre assez important de reliefs liés à ce culte y a été découvert.'
- 97 Cadotte 2007, 343.
- 98 Gaspar 2012, 114.
- 99 Audollent 1912, 362–68; Picard 1954, 185–88; Carcopino 1942, 13–37; Poinssot 1959–60, 108–10; Drine 1986; Drine 1994, 174–81; Ladjimi-Sebaï 2011, 173–76.
- 100 Gaspar 2012, 112 (with accompanying *canistrariae* and *lampadiferae*). Cf. Ladjimi-Sebaï (2011, 59–64, no. 112–36; cf. 195), who enumerated 25 certain priestesses with the title of *sacerdos Telluris/Cereris/Cererum*.
- 101 Poinssot 1959–60, 108–10. Cf. Ladjimi-Sebaï 2011, 192–203.
- 102 *CIL* VIII 16417 = *AE* 1968, 609; cf. *AE* 1991, 1678.
- 103 *CIL* VIII 12300 – Bisica; *CIL* VIII 24586 – Carthage; *CIL* VIII 10569 – Vaga.
- 104 *AE* 1968, 599; *AE* 1968, 588.
- 105 *ILAfr* 386 – Carthage; *CIL* VIII 25808b – Furnos Minus.
- 106 *CIL* VIII 15585; *CIL* VIII 15589–15590.
- 107 *AE* 1957, 182; *CIL* VIII 23087 = *ILPBardo* 415. See Leglay 1956, 44.

- 108 AE 1957, 182. Further, see Lipiński 1995, 374–80.
- 109 Leglay 1956, 36, 43.
- 110 Leglay 1956, 36–41.
- 111 Leglay 1956, 43, n. 16: 'Il s'agit vraisemblablement d'une part de blé dur (épis barbus), espèce courante dans l'Afrique ancienne et, d'autre part, de blé tendre ou d'orge glabre (épis non barbus), l'un et l'autre cultivés en Afrique.'
- 112 Picard 1954, 186–88; Ladjimi-Sebaï 2011, 195–96.
- 113 Constans 1916, 183.
- 114 CIL VIII 16693 = *ILAlg* I, 3517.
- 115 *ILAfr* 199 = *ILPBardo* 25. Cf. Constans 1916, 181–86.
- 116 Drine 1986, 220–21, pl. XXIX (cippe inédit).
- 117 *ILPBardo* 435 = CIL VIII 25378: [-----]ius, L(ucii) filius, Quir(ina (tribu), Venustus, aug(ur). Cereribu[s v(otum) s(olvit) l(ibens) a(nimo)?]. His onomastics (assigning to the *tribus*) allows dating it to a period before the beginning of the 3rd c. AD.
- 118 Bevan 1986, 68–73; Spaeth 1996, 141.
- 119 Ov. *Fast.* I, 671–72.
- 120 Ov. *Fast.* IV, 414.
- 121 Ov. *Fast.* I, 349–52. Trans. J.G. Frazer.
- 122 Cato *Agr.* 134.
- 123 Cic. *Leg.* II, 57; Varro, *De Vita Populi Romani* 104.1; Gell. *NA* 4, 6, 8; Festus, *De verborum significatione* 296–98.
- 124 CIL IX 7250 = AE 1990, 85 (Corfinium); IG 14, 702 (Pompei); CIL X 5073 (Atina). The themes of these representations are less numerous and only two constant features can be distinguished: the sow-altar and the sow-sacrificial knife.
- 125 Ov. *Fast.* I, 672. Cf. Mart. *Spect.* 14.
- 126 Hemelrijk 2015, 48 n. 49.
- 127 Ov. *Met.* 5, 642–47; Spaeth 1996, 27–38.
- 128 Siebert 1999, 75–84.
- 129 Siebert 1999, 110–15. Poinssot 1959–60, 108. Pl. II–face b identified a similar-looking and also downward-pointing object as a torch being held in the left hand by a *canistraria* carved in relief on a four-sided *cippus* from Sucubi (no. 14).
- 130 Cf. a description of the *cippus* from Mactar (no. 7) by Drine 1986, 221: 'Dans la niche inférieure, figure une truie plaine se dirigeant vers la gauche et broutant une touffe d'herbe.'
- 131 Cf. MacKinnon 2001, 659–70.
- 132 Saumagne 1928–29, 695.
- 133 Kampen 2015, 396: 'All around the West, where many people came to know Latin and to appropriate Roman monumental forms, from honorific arches to amphitheatres, from funerary stelae with portraits to floor mosaics and hypocaust heating systems, local traditions still continue to appear.'
- 134 Carthage – van Zeist *et al.* 2001; Utica – Rodríguez-Ariza *et al.* 2021; Althiburos – Kallala *et al.* 2016.
- 135 The compilation of environmental data, including not only animal bone and seed results, but also charcoal and snail shells, will be presented as a separate chapter in a forthcoming publication.
- 136 Dafni 2016, 222.
- 137 Özkan, Güray, 2009, 159
- 138 Tarongi *et al.* 2024, <https://doi.org/10.1007/s00334-023-00953-x> (accessed 20 January 2025).
- 139 Fairbairn, 2014, 186.
- 140 Stefaniak, McPhee, 2015, 111–40.
- 141 Miller, Enneking 2014, 261–63.
- 142 Azaza, Colominas 2020b, 532.
- 143 Cruz-Folch, Valenzuela-Lamas 2018; Azaza, Colominas 2020b.
- 144 MacKinnon 2013, 113.
- 145 Cruz-Folch, Valenzuela-Lamas 2018, Ouchaou 2015.
- 146 Uerpmann, Uerpmann 1973; Nobis 1999; Cruz-Folch, Valenzuela-Lamas 2018.
- 147 Azaza, Colominas 2020b, 532–33.
- 148 Azaza, Colominas 2020a: 5.
- 149 Epplert 2001: 294.
- 150 Saumagne 1928–29, 695 and Picard 1954, 187–88 identify the animals depicted in the Sidi Bou Beker stele as wild boars. cf. Figure 3. Picard 1954, 187.
- 151 Picard 1954, 187: 'Au troisième registre se voient une truie ou une laie [...].'
- 152 MacKinnon 2018: 277.
- 153 Azaza, Colominas 2020b, 532.
- 154 Azaza, Colominas 2020b, 533.
- 155 Lodwick, Rowan 2022, 606: 'While North Africa contains some of the largest and best-preserved sites in the classical world, archaeobotanically, the region is vastly undersampled and understudied. The rapid excavation of entire cities such as Dougga (Thugga, Tunisia) [...] in the early 20th century meant the permanent loss of an undoubtedly huge body of archaeobotanical data.'
- 156 Camps 1993, 1841–1844.
- 157 Ladjimi-Sebaï 2011, 196.
- 158 Kłodziński, Abid 2024, 292–298.
- 159 Only male priests with the title of *sacerdos Cererum* from Carthage operated in these cities, but as patrons and funders. See Uchi Maius (CIL VIII 26245 = *Uchi* II 16; CIL VIII 26255 = *Uchi* II 35; *Uchi* II 76 = AE 1997, 1665); Thugga (AE 1997, 1655 = Saint-Amans 2004, no. 76; CIL VIII 1478 = *DFH* 24). See Ibba 2006, 22; Saint-Amans 2004, 106–107.

Bibliography

- Abid, H., 2016. Aïn El Gueliane: le centre d'un domaine impérial aux environs de Mustis? In: N. Boukhchim and J. Ben Nasr (eds) *Peuplement, territoire et culture matérielle dans l'espace méditerranéen*. Université de Kairouan, Tunis: 99–114.
- Abid, H., 2021. Publica Mustitanorum: essai de délimitation. In: A. Mrabet (ed.), *Frontières, territoires et mobilités au Maghreb (Antiquité et Moyen Âge)*. Centre de Publication Universitaire, Tunis: 295–330.
- Abid, M., 2017. *Esclaves et affranchis impériaux en Afrique proconsulaire sous le Haut-Empire romain. Notices prosopographiques du personnel subalterne et étude de son rôle administrative*. Tunis, Latrach Editions.
- Ardeleanu, S. Chaouali, M., Eck, W., von Rummel, P., 2019. Die frühkaiserzeitlichen Grabsteine aus Simitthus (Chimtu). Stilistisch-epigraphische Analyse und urbaner Kontext. *Archäologischer Anzeiger* 1, 277–323.
- Audollent, A., 1912. Cereres. In: *Mélanges Cagnat: recueil de mémoires concernant l'épigraphie et les antiquités romaines, dédié par ses anciens élèves du Collège de France à M. René Cagnat*. Paris: 359–81.
- Awianowicz, B., 2020. CEREREM and IVNONEM. Why the Accusative Case? Two Rare Reverse Legends on Coins of Julia Domna (RIC IV Caracalla 378, 585, 596 and 599). *Notae Numismaticae* 15: 137–44.
- Azaza, M., Colominas, L., 2020a. The Roman introduction and exportation of animals into Tunisia: linking archaeozoology with textual and iconographic evidence. *Journal of Archeological Science: Reports* 29: 1–9 <https://doi.org/10.1016/j.jasrep.2019.102076>
- Azaza, M., Colominas, L., 2020b. Roman Tunisian dietary patterns as a feature of Romanitas: an archaeozoological approach. *International Journal of Osteoarchaeology* 30: 529–37 <https://doi.org/10.1002/oa.2880>.
- Battisti, A., Pepe, C., de Vos Raaijmakers, M. 2016. A harmonious marriage in Africa: the Funeral 'carmen' of Lucius and Iulia (CIL 8.27409 = CLE 1972) Reconsidered. *Zeitschrift für Papyrologie und Epigraphik* 199: 44–51.
- Ben Abdallah, Z., Ladjimi-Sebaï, L., 1983. *Index onomastique des inscriptions latines de la Tunisie*. Préface de M. Leglay. Éditions du Centre National de la Recherche Scientifique, Paris.
- Ben Romdhane, H., 2013. Notes d'histoire et d'archéologie sur un site antique de la moyenne vallée de l'oued Kébir-Miliane: Hr Sidi Slimane. *Africa* 23: 143–54.
- Benseddik, N., 2010. *Esculape et Hygie en Afrique*, 2 vols., Diffusion De Boccard, Paris.
- Beschouch, A., 1965–66. Mustitana. Recueil des nouvelles inscriptions de Mustis, cité romaine de Tunisie. Tome 1. *Karthago* 14: 120–221.
- Beschouch, A., 2014. Municipium Iulium Aurelium Mustitanum. De Tibère à Marc-Aurèle, l'histoire municipale de Mustis, cité romaine de Tunisie. *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres*: 1585–95.
- Bevan, E. 1986. Representations of animals in sanctuaries of Artemis and other Olympian deities. *BAR international series* 315 (1–2), Oxford.
- Bourguida-M'Charek, F., 1997. Stèles et reliefs inédits de Bargou. *Africa* 15: 17–42.
- Buonopane, A., Riso, M.R., 2020. Tra epigrafia e archeobotanica: i giardini sepolcrali e la loro cura. Un caso di studio: Mutina (Italia, Regio VIII). In: L. Pons Pujo (ed.) *Paradeisos. Horti. Los jardines de la Antigüedad*. Edicions Universitat de Barcelona, Barcelona: 205–21.
- Cadotte, A., 2007. *La Romanisation des dieux. L'interprétation romaine en Afrique du Nord sous le Haut-Empire*. Religions in the Graeco-Roman world 158. Brill, Leiden–Boston.
- Camps, G., 1993. Cereres. In: *Encyclopédie Berbère* 12: 1841–1844.

- Carcopino, J., 1942. *Aspects mystiques de la Rome païenne*. L'Artisan du Livre, Paris.
- Carton, L., 1895. *Découvertes épigraphiques et archéologiques faites en Tunisie (région de Dougga)*. Leroux, Lille.
- Chérif, A., et al., 2021. Archéologie des domaines impériaux. Recherches à Henchir Hnich (région du Krib, Tunisie), site de découverte de la lex Hadriana de agris rudibus. *Mélanges de l'École française de Rome. Antiquité* 133–2: 457–86.
- Constans, L.-A., 1916. Cippes funéraires d'une prêtresse trouvée à Aïn-Maja, Tunisie (Planche II). *Revue des Études Anciennes* 18.3: 181–86.
- Cooley, A.E., 2012. *The Cambridge Manual of Latin Epigraphy*. Cambridge University Press Cambridge.
- Cruz-Folch, I., Valenzuela-Lamas, S., 2018. From western cowboys to eastern shepherds: Funerary practices and animal husbandry in Mauretania and Numidia from the first millennium BC to circa 500 AD. *Quaternary International* 471. *African Archaeozoology*: 175–89.
- Dafni, A., 2016. Myrtle (*Myrtus communis*) as a ritual plant in the Holy Land – a comparative study in relation to ancient traditions. *Economic Botany* 70(3): 222–34.
- D'Ambrosio, A., De Caro, S., 1983. Un impegno per Pompei: fotopiano e documentazione della Necropoli di Porta Nocera. TOTAL, Touring club Italiano, Milan.
- Desanges, J., et al. 2010. *Carte des routes et des cités de l'est de l'Afrique à la fin de l'Antiquité. Nouvelle édition de la carte des «Voies romaines de l'Afrique du nord» conçue en 1949, d'après les tracés de Pierre Salama*. Brepols, Turnhout.
- Drine, A., 1986. *Les Cérères en Afrique du Nord* (unpublished doctoral thesis), Paris.
- Drine, A., 1994. Cérès, les Cereres et les sacerdotesses magnae en Afrique: quelques témoignages épigraphiques et littéraires (Tertullien). In: Y. Le Bohec (ed.), *L'Afrique, la Gaule, la religion à l'époque romaine. Mélanges à la mémoire de Marcel Leglay*, 174–81. Latomus, Brussels.
- Epplert, W.C., 2001. *Animal Spectacula of the Roman Empire*, (unpublished doctoral thesis), Vancouver.
- Fairbairn, A., 2014. Preliminary archaeobotanical investigations of plant production, consumption, and trade at middle bronze age Kültepe-Kanesh. In: Atici, L., Kulakoğlu, F., Barjamovic and G., Fairbairn, A (eds) *Current Research at Kültepe/Kanesh: an Interdisciplinary and Integrative Approach to Trade Networks, Internationalism and Identity*. Lockwood Press, Atlanta, GA: 177–93.
- Ferchiou, N., 1981. Grandes stèles à décor architectural de la région de Bou Arada (Aradi) en Tunisie (Pl. 43–60). *MDAIR* 88, 141–89.
- Ferchiou, N., 1989. *L'évolution du décor architectural en Afrique provinciale des derniers temps de Carthage aux Antonins*, Tunis. Imprimerie Louis-Jean, Virginia.
- Ferchiou, N., 1998. Recherches sur l'iconographie religieuse dans l'ancien territoire de la Carthage punique: un fronton de chapelle de la région de Bou Arada (Tunisie). *Antiquités africaines* 34: 57–63.
- Ferchiou, N., 2000. Recherches sur le paysage humain antique dans le centre nord-est de l'Afrique provinciale, entre Abthugnos et Coreva (résumé). *Africa* 18: 67–75.
- Gaspar, V.M., 2012. *Sacerdotes piae: priestesses and other female cult officials in the western part of the Roman Empire from the first century B.C. until the third century A.D.* Universiteit van Amsterdam, Amsterdam.
- Gifford-Gonzales, D., 2018. *An Introduction to Zooarchaeology*. Springer International Publishing AG, Cham.
- González Bordas, H., Chérif, A., 2018. Les grandes inscriptions agraires d'Afrique: nouvelle réflexion, nouvelle découverte. *Comptes rendus des Séances de l'Académie des Inscriptions et Belles-Lettres* 3: 1423–53.
- Graf, F., 2004. Genita Mana. In: H. Cancik and H. Schneider (eds), *Brill's New Pauly. Encyclopaedia of the Ancient World. Antiquity*, vol. 5, Brill, Leiden–Boston: 755–56.
- Hemelrijk, E.A., 2015. *Hidden Lives, Public Personae. Women and Civic Life in the Roman West*. Oxford University Press, Oxford.
- Hillson, S., 2005. *Teeth*. Cambridge University Press, Cambridge.
- Ibba, A., 2006. Introduzione. In: A. Ibba (ed.), *Uchi Maius 2: le iscrizioni*. EDES, Sassari: 13–54.
- Kajanto, I., 1965. *The Latin Cognomina. Commentationes humanarum litterarum* 36.2, Helsingfors: Helsinki.
- Kajanto, I., 2003. *Die Griechischen Personennamen in Rom. Ein Namenbuch*, vol. 1–3. Walter de Gruyter: Berlin.
- Kallala, N., Sanmarti, J., Belarte, M. C. (eds), 2016. *Althiburos II: l'aire du capitol et la nécropole méridionale: études*. Documenta 28. Institut Català d'Arqueologia Clàssica (ICAC): Tarragona.
- Kampen, N., 2015. Roman art and architecture in the provinces and beyond the Roman World. In: C. Marconi (ed.), *The Oxford Handbook of Greek and Roman Art and Architecture*. Oxford University Press, Oxford: 395–413.
- Kehoe, D., 2020. Agriculture in Roman North Africa. In: D.B. Hollander, T.A. Howe (eds), *Companion to Ancient Agriculture*, John Wiley & Sons, Hoboken, New Jersey: 499–516.
- Kłodziński, K., 2020. New procuratores regionis Thuggensis?. *Zeitschrift für Papyrologie und Epigraphik* 213: 305–12.
- Kłodziński, K., 2023. Ex auctoritate et sententia Imperatoris. A controversial phrase in four cippi from Jebel Bou Khil (near Mustis) in Africa Proconsularis. *Epigraphica* 85.1–2: 269–83.
- Kłodziński, K., Abid, M., 2024. Two unique inscriptions with a priestess or priestesses of Ceres/the Cereres. *Zeitschrift für Papyrologie und Epigraphik* 231: 292–98.
- Ladimi-Sebaï, L., 2011. *La femme en Afrique Romaine à l'époque romaine (à partir de la documentation épigraphique)*. Institut National du Patrimoine, Tunis.
- Larminat de, S., Lepetz, S., 2021. À la table des défunts : mensae et ossements animaux dans les nécropoles d'Afrique romaine. In: Véronique Blanc-Bijon, V., Bracco, J.-P., Carre, M.-B., Chaker, S., Lafon, X. and Ouerfelli, M (eds), *L'homme et l'animal au Maghreb, de la Préhistoire au Moyen Âge. Explorations d'une relation complexe*. Presses universitaires de Provence, Aix-en-Provence: 409–18.
- Lassère, J.-M., 1973. Recherches sur la chronologie des épitaphes païennes de l'Afrique. *Antiquités africaines* 7: 7–152.
- Lassère J.-M., 2015. *Africa quasi Roma (256 av. J.-C. – 711 apr. J.-C.)*. CNRS, Paris.
- Leglay, M., 1956. Junon et les Cereres d'après la stèle d'Aelia Leporina trouvée à Tebessa. *Libya. Archéologie, épigraphie* 4: 33–53.
- Leglay, M., 1957. Le serpent dans les cultes africains in *Hommages à W. Deonna, Bruxelles, Latomus*, 28: 338–57.
- Leglay, M., 1961. *Saturne africain. Monuments. Tome 1. Afrique Proconsulaire*, Paris.
- Leglay, M., 1966. *Saturne africain. Histoire*, Paris.
- Lipiński E., 1995. Dieux et déesses de l'univers phénicien et punique. *Studia Phoenicia* 14. Peeters, Leuven.
- Lodwick, L., Rowan, E., 2022. Archaeobotanical research in classical archaeology. *American Journal of Archaeology* 126, no. 4: 593–623.
- Lutnicki, W., 1972. *Uzębienie zwierząt domowych*. Wydawnictwo Naukowe PWN: Warsaw.
- MacKinnon, M., 2001. High on the hog: linking zooarchaeological, literary, and artistic data for pig Bbreeds in Roman Italy. *American Journal of Archaeology* 105: 649–673.
- MacKinnon, M., 2013. Pack animals, pets, and other non-human beings. In: P. Erdkamp, (ed.), *The Cambridge Companion of Ancient Rome*, I, Cambridge University Press. Cambridge–New York: 10–28.
- MacKinnon, M., 2018. Zooarchaeology method and practice in classical archaeology: interdisciplinary pathways forward. In: C. M. Giovias, M. J. Lefebvre (eds), *Zooarchaeology in Practice: Case Studies in Methodology and Interpretation in Archaeofaunal Analysis*. Springer, Cham: 269–89.
- M'Charek, A., 1982. *Aspects de l'évolution démographique et sociale à Mactaris aux IIe et IIIe siècles ap. J.C.*, Tunis.
- Miller, N., Enneking, F.M., 2014. Bitter vetch (*vicia ervilia*) ancient medicinal crop and farmers favorite for feeding livestock. In: P.E. Minnis (ed.), *New Lives for Ancient and Extinct Crops*. The University of Arizona Press, Tucson: 254–68.
- Misiewicz, K., Hajji, J., Waliszewski, T., 2018. Prospections non invasives sur le site de Mustis/Musti (El Krib) en Tunisie. *Światowit* 57: 207–22.
- Moore, J.P., 2007. The Mausoleum culture of Africa Proconsularis. In: D.L. Stone and L.M. Stirling (eds), *Mortuary Landscapes of North Africa*. Phoenix Supplementary Volume 43. University of Toronto Press, Toronto, Buffalo: 75–109.
- Nobis, G., 1999. Die Tierreste von Karthago. In: Rakob (ed.), *Karthago*, vol. 3. *Die Deutschen Ausgrabungen in Karthago*. Philipp von Zabern, Mainz: 574–631.
- Nuorluoto, T., 2023. *Latin Female Cognomina. A Study on the Personal Names of Roman Women*. Helsinki.
- Ouchaou B., 2015. Porc (au Maroc depuis le Néolithique). In: *Encyclopédie berbère*, XXXVIII. Peeters Publishers, Paris/Louvain: 6354–61.

- Özkan, A.M., Gençler Güray, C., 2009. A Mediterranean: *Myrtus communis* L. (myrtle). In: J.P. Morel, and A.M. Mercuri (eds), *Plants and Culture: Seeds of the Cultural Heritage of Europe*. Edipuglia SRL, Bari:159–68.
- Picard, G.Ch., 1954. *Les religions de l'Afrique antique*. Préface de J. Carcopino. Plon, Paris.
- Picard, G.Ch., 1956. *Le monde de Carthage*. Editions Corrêa Buchet/Chastel, Paris.
- Picard, G.Ch., 1970. Tombeaux des prêtresses de Cérès à Mactar. *Bulletin archéologique du Comité des travaux historiques et scientifiques* 6: 195–97.
- Picard, G., Le Bonniec, H., Mallon, J., 1970. Le cippe de Beccut. *Antiquités africaines* 4: 125–64.
- Pikhaus, D., 1994. Répertoire des inscriptions latines versifiées de l'Afrique Romaine (Ier–VIe siècles). I Tripolitaine, Bazacène, Afrique Proconsulaire. Epigraphica Bruxellensia, Brussels.
- Poinssot, Cl., 1959–60. Suo et Sucubi. *Karthago* 10: 93–129.
- Prummel, W., 1987. Atlas for identification of foetal skeletal elements of cattle, horse, sheep and pig. Part 2. *Archaeozoologia* 1/2: 23–30.
- Quoniam, P., 1953. Inscriptions latines de la région de Souk el Arba et Souk el Khemis, *Karthago* 4, 137–52.
- Rodríguez-Ariza, M.O., López Castro, J.L., Jerbania, I.B., Martín A.M., Ferjaoui, A., Hahn Müller V.M., Pardo Barrionuevo, C.A., Sánchez Moreno A., Khalfali W., Jendoubi K. 2021. Long-term human impact and forest management in the Phoenician and Roman city of Utica (Tunisia) (900 BC–500AD). *The Holocene* 31(6): 943–53. <https://doi.org/10.1177/0959683621994646>
- Saint-Amans, S., 2004. *Topographie religieuse de Thugga (Dougga). Ville romaine d'Afrique Proconsulaire (Tunisie)*. Ausonius, Bordeaux.
- Saladin, H., 1892, Rapport adressé à M. le Ministre de l'Instruction publique, sur la mission accomplie en Tunisie, en octobre-novembre 1885, In: *Nouvelles archives des missions scientifiques et littéraires*, vol. 2, Paris, 377–561.
- Saumagne, Ch., 1927. Le domaine impérial de la Tour Ronde. *Bulletin archéologique du Comité des travaux historiques* 1927: 103–8.
- Saumagne, Ch., 1928–29. Quelques inscriptions du Krib (Tunisie). *Bulletin archéologique du Comité des travaux historiques* 1928–1929: 683–99.
- Savunen L., 1997. *Women in the Urban Texture of Pompeii* (unpublished doctoral thesis), Helsinki.
- Schmid E., 1972, Atlas of animals bones for prehistorians, *Archaeologist and Quaternary Geologist*. Elsevier Publishing Company, Amsterdam.
- Sethom, H., Kassab, A., 1981. *Les régions géographiques de la Tunisie*. Université de Tunis, Tunis.
- Siebert, A.V., 1999. *Instrumenta Sacra. Untersuchungen zu römischen Opfer-, Kult- und Priestergeräten*. W. De Gruyter, Berlin–New York.
- Spaeth, B.S., 1996. *The Roman Goddess Ceres*. University of Texas Press, Austin.
- Stefaniak, T.R., and McPhee, K.E., 2015. 'Lentil'. In: A.M. De Ron (ed.), *Grain legumes. Handbook of Plant Breeding*, vol. 10. Springer, New York: 111–40.
- Tarongi, M., Bouby, L., Bonhomme, Alonso, N. 2024. Which pulse is it? Identifying archaeological legumes seeds by means of biometric measurements and geometric morphometrics. *Vegetation History and Archaeobotany* 33: 5–14. <https://doi.org/10.1007/s00334-023-00953-x>.
- Toutain, J., 1907. *Les cultes païens dans l'Empire romain*. Vol. 1: *Les cultes officiels; les cultes romains et gréco-romains*. E. Leroux, Paris.
- Tutrone, F., 2019. Barking at the threshold. In: T. Schmidt, and J. Pahlitzsch (eds), *Impious Dogs, Haughty Foxes and Exquisite Fish. Evaluative Perception and Interpretation of Animals in Ancient and Medieval Mediterranean Thought*. W. De Gruyter, Berlin–Boston: 73–102.
- Uerpmann, H.P., Uerpmann, M., 1973. Tierknochenfunde aus der phoenizischen Faktorei von Toscanos und anderen phoenizisch beeinflussten Fundorten der Provinz Malaga. In: *Südspanien. Studien über frühe Tierknochenfunde iberischen Halbinsel* 4, 35–100. Uni-Druck, Munich.
- van Zeist, W., Bottema, S., van der Veen, M. 2001. *Diet and Vegetation and Ancient Carthage. The Archaeobotanical Evidence*. Groningen, Institute of Archaeology.