

PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON AMULETS:

Research and Studies on Amulets

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FOREWORD

Maria José Sousa
The D. Diogo de Sousa Archaeology Museum director

The International Conference on Amulets, organised by the D. Diogo de Sousa Archaeology Museum (MADDS) on the 15th and 16th of November 2024, in an online format, now has its proceedings published.
This conference brought together researchers from various parts of the world around this theme of great historical, symbolic, and cultural relevance, and promoted scientific dialogue and the sharing of knowledge on amulets.
The organisation of this congress, as well as the publication of its proceedings, reinforces MADDS's commitment to preserving, valuing, and disseminating heritage and the knowledge generated from it. We especially thank the Organising Committee, composed by the researchers Alexandra Vieira and Christopher Duffin, whose dedication made this conference possible.
The contributions gathered in this volume result from a meeting marked by a spirit of collaboration and academic rigour, reflecting the diversity of approaches and methodologies that characterise the study of amulets. The texts published here explore multiple cultural contexts, in a breadth that transcends disciplinary, chronological, and geographical boundaries, highlighting the universality of amulets as objects of belief, protection, identity, and symbolic power.
Like the event itself, this publication celebrates the convergence between scientific research, heritage preservation, and critical debate, reaffirming the role of the D. Diogo de Sousa Archaeology Museum as a space for study, encounter, and the sharing of knowledge.

PREFACE

Alexandre Nobre Pais
President of the Board of Museus e Monumentos de Portugal

On behalf of the institution that oversees the D. Diogo de Sousa Archaeology Museum, it is with great pleasure that we reflect on the *International Conference on Amulets* and on the publication that so eloquently preserves its intellectual legacy. Hosting this event in Braga was both a privilege and a responsibility, one that the Museum embraced with enthusiasm, recognizing the importance of fostering rigorous, innovative and genuinely international scholarly exchange.
The conference brought together an exceptional community of researchers whose work transcended disciplinary, chronological and geographical boundaries. The present volume ensures that what was shared in Braga now reaches far beyond the temporal and spatial limits of the event itself. By safeguarding and disseminating these contributions, the Museum fulfils one of its core missions: to care not only for collections and spaces, but also for knowledge, dialogue and critical reflection.
This volume represents a remarkable scholarly achievement and a significant contribution to the study of amulets and material culture across time and space. The breadth of chronological and geographical coverage is particularly impressive, guiding the reader from the Paleolithic to contemporary society and across a wide range of cultural contexts. This diversity not only enriches our understanding of amulets as objects of belief, protection and identity, but also highlights their enduring relevance in human societies.
Overall, this work stands as a testament to the dedication, scholarly excellence and collaborative spirit of all those involved, and it will undoubtedly stimulate further research and dialogue in the field for years to come.
Museus e Monumentos de Portugal is particularly proud of the collaborative spirit that shaped both the conference and this publication, uniting scholars, curators and institutions around a shared commitment to excellence. This work stands as a lasting testament to what can be achieved when research, heritage and public institutions work together, and it reinforces D. Diogo de Sousa Archaeology Museum's role as a place where the past is studied, debated and meaningfully projected into the future.

INTRODUCTION

Christopher J. Duffin
On behalf of the editorial team, Alexandra Vieira and Cristina Braga

An International Conference dedicated to research on amulets was held online over two days (15th – 16th November) in 2024. The meeting, hosted by the Museum of Archaeology D. Diogo de Sousa (Braga, Portugal) and convened by Drs Alexandra Vieira and Christopher Duffin, attracted an international audience, the members of which were treated to 40 presentations dedicated to the theme of the conference (Duffin & Vieira, 2024). Authors were invited to prepare their contributions for publication resulting in the 23 chapters which make up the present volume.

Amulets were (and in some places and cultures, still are) seen as potent objects with a wide range of applications. They have been invoked apotropaically to avert evil, as both a prophylactic and a remedy for disease, to attract good fortune and as items of personal adornment. Redolent with symbolic content, their magical impetus usually lies in the properties of the construction materials used, their shapes, any decoration or inscription with which they might be embellished, and any particular religious or belief system ideologies with which they might be associated. The choice of materials is wide-ranging and embraces items of *naturalia* (animal, herbal and geological), *devotionalia* (such as religious texts and images) and anthropogenic origin (artisanal creations manufactured by mankind). The history of amulet use is wide-ranging both temporally and geographically.

This volume brings together new research by an international group of scholars that includes archaeologists, historians, anthropologists, independent scholars and museum personnel. Analysis of historical items of material culture and associated literature review sits alongside data gathering from modern populations to provide a broad sweep of information embracing the use of amulets from Palaeolithic times to the present day. This temporal journey introduces the reader to the potential beliefs and practices of a range of cultures, including the Mycenaean (Bronze Age), Koban (Iron Age), Greek and Roman empires, Phoenician, Punic, medieval Rus, early modern European and Jewish customs, right through to those of modern society. The intellectual excursions presented here rely on a diversity of source materials, especially archaeological discoveries in funerary and settlement contexts, together with survivals of historical artefacts and ephemera in museum and personal collections. A wide range of potential applications is discussed for these fascinating objects, including (1) as apotropaic devices whose resident power was believed to avert dangers in the form of natural disasters, witchcraft, evil spirits, the Evil Eye and bad luck, (2) as magico-medicinal cures and prophylactics with which to encourage health-related benefits and to protect against a host of diseases including plague, snakebite, ocular problems, poisoning and headaches, and (3) elements to attract good luck and secure beneficial results such as success when hunting for treasure, encouraging prosperity, increasing fertility and fecundity, assisting with aspects of child rearing, protecting the dead in the spiritual realm and facilitating prophesy. They were also harnessed to enhance and amplify an individual's wealth, battle prowess, power or love interest.

The most enduring symbol featured in this volume is the pentagram, a five-pointed star polygon. In his survey of the use of this figure, **Fernando Augusto Coimbra** notes its use in many cultures, time periods and locations, and that its meaning is often determined by its associations. Ranging from the IVth millenium BC (Neolithic) to the present day, it has been closely associated with Christian imagery, being displayed as part of funerary catacomb inscriptions in Rome and on gold amulets for children. This versatile image is also suggested as having been employed to ensure protection in war, to mitigate against the Evil Eye and to exorcise evil. Used to adorn a wide range of buildings, everyday domestic and status-proclaiming objects (such as coins, flags and coats of arms), as well as being a popular apotropaic sigil, the pentagram is used as a lucky charm.

The oldest culture considered in detail is that of the Greek Bronze Age Mycenaean civilisation. This warrior-focussed culture was adept both militarily and in its mastery of engineering. **Christina Aamodt** notes the former lack of attention paid to potential amulets from this society and reviews the mainly funerary objects of material culture that can be interpreted as being apotropaic in function. Decorative objects of personal adornment may also have been endowed with amuletic purpose, probably defined by the various qualities of the materials used – their iconography, form and exoticism, for example. Certain beads, for example, are envisaged as protecting the wearer, particularly children, from harm, and crescent-shaped pendants may have offered special protective properties to women. Apotropaic sealstones and items of jewellery, often inscribed with symbols, images and text, were not only decorative but were also protective in function.

Nadezhda Kotova and Sergey Makhortykh concentrate on amulets belonging to the Koban culture, an Early Iron Age community inhabiting the Central and Northern Caucasus region of Eastern Europe and

Western Asia, and whose archaeological records are centred around Northern Ossetia. Funerary finds from the graves of children include pendants of animal bones and teeth, while rather more common amulets are associated with female interments. Evidence suggests that women played important and active roles in the ritual, priestly and healing aspects of Koban culture. Bronze amuletic apotropaic and healing pendants include numerous zoomorphic examples, together with pellet balls, plus beads made from a variety of metallic, mineralogical and zoological materials.

Ancient Gadir (modern Cádiz, Spain) was founded by the Phoenicians, evolved into a thriving port city and, in Roman times, was an important naval base. A large necropolis sampling the full range of the town's history has become the focus of modern archaeological rescue efforts. Items of jewellery found in graves of the Punic period (VIth to IIIrd century BC) include several pieces constructed in the form of the Heraklean Knot. **Maria Reyes López Jurado** explains that this motif is uncommon in the area of the western Mediterranean. These gold artefacts were mainly components of elaborate necklaces and the author traces the iconographical history of the motif from Egyptian times, suggesting that it was apotropaic in function.
At its apogee, the vast Roman Empire controlled what is now Europe, the Mediterranean, North Africa and The Middle East. It is clear both from archaeological finds and surviving written records that amulets were diverse and commonplace elements of everyday life, appreciated and worn or carried by men, women and children in all classes of society. A recent study (Hunt, 2024) has shown that Pliny the Elder (23/24-79) gave details for 263 therapeutic amulets in his encyclopaedic *Naturalis Historia*. Many amulets were gender distinctive. It is, perhaps, not surprising that the bulk of the archaeological sources of amulets detailed in this book relate to Roman sources.

Maria do Sameiro Barroso focuses on the amulets collected from the capital of the Roman province of Gallaecia, *Bracara Augusta*. Located in northwest Hispania in what is now northern Portugal and northwestern Spain, the region was originally occupied by Celtiberian tribes. Following a classification scheme originally proposed by Giuseppe Bellucci (1844-1921), Barroso identifies four functionally distinct typologies of object - those concerned with (1) natural phenomena, (2) healing, (3) warding off evil spirits, and (4) propitious garnering of good luck. Within this taxonomy, Neolithic stone adzes may have offered protection against lightning strikes, perforated stones and coins may have been associated with birth, walnut shells with protecting marriages, bell-shaped pendants or *tintinabulae* with averting harm, phallic *fascina* against the Evil Eye, and pomegranates fashioned from black glass might have been associated with male virility. The functions of vitreous paste amulets and glass tubes holding phylacteries are also described.

Tubular amulets housing phylacteries are given prominence in the study presented by **Ilija Danković and Bebina Milovanović**. These authors discuss finds made from excavations of the graves of the inhabitants of *Viminacium*, a major city and military encampment acting as the capital of the Roman Province of Moesia Superior, located in what is now modern Serbia. Tubular metal amulet-containing capsules bearing loops for suspension can be divided into two size classes. Larger silver and bronze capsules contain enrolled gold or silver lamellae inscribed with symbols and magical texts, while smaller silver capsules probably housed protective substances.
Further amulet containers known as *bullae* were often shaped like lockets and housed protective objects; they were worn by Roman boys until such time as they became of age. These amulets are amongst the collection of goods excavated from *Augusta Emerita* (modern day Mérida, Spain), capital of the Roman province of Lusitania, studied by **Nova Barrero Martín and Abel Morcillo León.** These authors also consider black glass capsules similar to those described from *Bracara Augusta*, items of jewellery incorporating phallic *fascina* (often combined with other apotropaic figures, such as the *figa* and open hand or *palma manu*), and *lunulae* (crescent-shaped pendants for women).

Also concerning Roman archaeological finds from the Iberian Peninsula, **Andrea Menéndez Menéndez and Macarena Bustamante Álvarez** review the use of organic raw materials, particularly the mineraloid jet, in the production of amulets. Cretaceous jet-containing deposits are known from Hispania and may have yielded raw materials for amulet production. Noting that jet was believed to have magico-medicinal properties both as a fumigant and when worn in items of jewellery in Roman times, these authors review the archaeological records and artefacts of jet, paying particular attention to anthropomorphic and zoomorphic amulets, beads, *bullae* and *lunulae*. Records of amber, bone and ivory are also included in the review, and the potential symbolic, ritualistic and apotropaic applications of all the items of material culture are discussed.

Mother-of-pearl is another organic semi-precious stone, this time harvested from the nacreous layer of molluscan shells. **Nicolaie Alexandru, Monica Mărgărit and Ana Hamat** report on a rare, IVth century mother-of-pearl anthropomorphic pendant depicting the upper body and head of a male figure as seen from the front. The object was found in a child's tomb from the Christian necropolis of *Callatis* (now Mangalia), a port city on the Black Sea coast in Romania. After considering the production techniques involved in fashioning the

artefact, these authors conclude that the pendant was an apotropaic component of a *crepundia*-type necklace or amulet chain, surmising that it may have been used as a prophylactic against oro-dental problems.

Also concerned with amulets from *Callatis*, **Laurențiu Radu** focuses on objects from the Macedonian period of the town's history. Wreaths excavated from a series of cremation and inhumation graves comprise a series of gilded bronze leaves and ceramic beads tied onto a circular lead or bronze frame by means of bronze threads. The different components of these and other funerary wreaths are analysed and the significance of their roles in helping to define the status of the buried individual are assessed. Ceramic medallions depicting the Gorgon, Medusa, are important supplementary constituents of the wreaths and lent an additional protective function to these distinctive artefacts.

The final chapter dedicated exclusively to Roman amulets is written by **Andrej Preložnik**, who concentrates on a series of apotropaic amulets designed to promote attacks against the Evil Eye. Composed of thin sheets of gold or silver, often circular in shape, these structures are embossed with depictions of the Evil Eye being assaulted by a variety of animals, weapons, divine symbols and apotropaic elements. In reviewing this amulet genre, the author analyses the significance of the different iconographical elements used to decorate the structures and discusses the stylistic evolution embodied in the rather limited record of these objects.

Jaquelina Covaneiro and Sandra Cavaco present a longitudinal study in which they trace the archaeological records of amulets, mostly excavated from residential and funerary settings, from a single locality – Tavira in southern Portugal. Amulets are identified from Roman, Islamic (XIIth to XIIIth century), Medieval and Modern periods. Specimens described and analysed include religious objects from both Christian (pilgrimage souvenirs, Marian medallions, crucifixes, pentagrams, hexagrams and elements of the rosary) and Islamic (invocational inscriptions on ceramics, and *khamsa* or the Hand of Fatima) periods of occupation. Further amuletic elements include items of black glass, *figa*, and a range of pieces of zoological origin (bear teeth, astragali and bone 'horns').

Medieval amulets form the subject of two papers in this volume. **Joanna Wawrzeniuk** discusses amulets from western Slavdom (modern day Poland). Following a digest of the characteristics of magical thinking during the Middle Ages, the author gives an overview of the diversity displayed by these objects in terms of their construction materials, semiotics, morphologies and physical characteristics. She then uses this information to provide a wide-ranging discussion of their potential protective functions and roles in the everyday lives of the populace.

In contrast, **Alexander Lapshin** concentrates on a single medival artefact – a round jasper medallion known as the Suzdal *zmeevik*-amulet and a product of Medieval Rus. The author decodes the imagery and inscribed text on the object; this consists of two-line Slavonic prayers and the names and images of the Seven Sleepers of Ephesus, six eight-pointed stars, an anthropomorphic head with six dragon-headed serpentine bodies, and an appeal to Christ for mercy. Clearly a therapeutic religious amulet, it is concluded that this object was a point of focus for prayerful healing of one of the persons named in the inscriptions in respect of unidentified medical conditions.

Christopher Duffin uses a search of contemporary printed sources to build a picture of the diversity of amulets used to protect against plague in early modern times. Whilst some amuletic materials are identified somewhat cursorily with this function, others depended on a clearly associated medical philosophy. Thus, the power of sympathy was at work in cases such as the use of dried toads, liquid mercury or live spiders trapped in walnut shells, and the use of arsenic minerals enclosed in bags worn around the neck. This idea was combined with alchemical beliefs in the use of Paracelsian *zenextons*, and textual amulets included the inverted Abracadabra triangle and Plague Leaves utilising religious imagery and accompanying acrostic blessings.

Instructions for the construction of a further textual amulet are provided by the *Sefer Raziel ha-Malakh*, a much-neglected book of magic first published in 1701. **Eugene Kuzmin** introduces and, using careful etymological and linguistic analysis, elucidates the possible meaning of this Jewish amulet which, based on astromagical and Biblical foundations, was designed to secure success when hunting for treasure. The instructions indicate that the amulet should be prepared by a magician. A plate of gold inscribed with various sacred names was tied to the neck of a white dove, which then revealed the location of the treasure.

Rachael Pymm unpacks the thinking behind the use of snakestones as amulets. Following a classification of these objects, she traces their magico-medicinal and apotropaic uses, primarily on the basis of a survey of the literature but reinforced by reference to surviving elements of material culture. Thus, rocks resembling the skin patterning and colouring of snakes (*Ophites*), glass beads or spindle whorls, ammonites and stones supposedly harvested from the heads of snakes were utilised, variously, to cure illnesses such as headache and plague, protect the bearer from witchcraft and snakebite, and facilitate prophesying.

Snakes are not the only creatures purported to possess a stone in their heads. **Rachael Pymm** surveys a range of historical, ethnographic and fokloric sources related to this topic and discovers that accounts of animals with forehead stones are featured in a variety of cultures, time periods and geographical locales. After identifying key unifying features of such traditions, she goes on to consider their amuletic utilities, primarily as therapeutic and apotropaic devices.

Alessandra Magni and Gabriella Tassinari focus on two collections of engraved gems - those amassed by Joseph Hilarius Eckhel (1737 - 1798) and Luigi Bossi (1758 - 1835). These authors analyse the various contributions of these two enthusiastic and dedicated collectors with reference to some of the stand-out pieces from their collections.

A slightly different collection of amulets is presented by **Sigrid van Roode**. She concerns herself with a collection of 50 amulets from Oman. Dating from the mid-twentieth century onwards, the construction materials utilised in the production of these amulets is extremely varied and includes some rather surprising elements – more traditional substances such as coral, bone, teeth, horn, stones, flint, thorns and nuts sit alongside glass bottle stopper and small pieces of plastic. In addition to the material diversity represented in the collection, the author considers modes of wearing and cultural context, all illustrated by reference to selected case histories.

Ana Piedade examines the use of amulets in contemporary Portuguese culture. Her anthropological approach employed a longitudinal study of 53 families over a period of six years, focusing on their wearing and use of amulets. Data collected from the use of multiple methodologies allowed the development of an assessment of their collective use of amulets as items of protection, and elements of identity, power and memory.

The variety of roles and different approaches to the study of amulets are discussed by **Bożena Józefów-Czerwińska**. Using data from a wide range of sources, the author highlights and emphasises how amulets are closely tied to the world views of different cultural groups, fulfilling multifaceted roles in society. Displaying protective, therapeutic and spiritual functions more nuanced interdisciplinary ethnographical and ethnoarchaeological studies of their inherent meanings and cultural connections using modern research techniques is expected to provide an area for increasingly rich insights into ancient societies.

Diane Heath introduces the reader to the RESPECT project exploring how perceptions of apotropaic and prophylactic cultural items might be reshaped in terms of interacting community, historical and curatorial research themes.

The broad scope of this book, its interdisciplinary nature and varied approach are testament to the diligence and research skills displayed by its authorship. The editors would like to express their gratitude to all who submitted manuscripts for consideration for publication in these proceedings, the members of the scientific committee for their work in reviewing the various submissions, and the technical staff who were so crucial in seeing this work through to final publication.
In conclusion, the editors hope that the collection of papers in this volume will be of interest to a wide readership and act as a stimulant for further individual and co-operative research into the fascinating world of amulets.

References

Duffin, C.J. & Vieira, A. (2024). International Conference on Amulets, 15th-16th November 2024. Abstracts. pp. 1-93.

Hunt, Yvette (2024). Medical amulets identified within Pliny the Elder's "Naturalis historia" (Natural History), their nature, and context. The University of Queensland. (Dataset). doi: 10.48610/f244dd0

RESPECT: RESHAPING PERCEPTIONS ABOUT APOTROPAIC AND PROPHYLACTIC CULTURAL ITEMS: COMMUNITY, HISTORICAL AND CURATORIAL INTERACTION

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Summary
The RESPECT project is still in its early stages, following a Science Museum research seminar and an informal conference on amulets, both organised with Dr Kathleen Walker-Meikle and Dr Victoria Blud in London. Expert delegates who attended these events came from within the Science Museum and from GLAM and Higher Education sectors. We aim now to explore how to reshape perceptions about apotropaic and prophylactic cultural items in terms of community, historical and curatorial interacting research themes. This paper sets out the research arguments, proposed parameters, and context, including a case study from a related project on heritage, wellbeing, and sustainability, demonstrating that the project has significant therapeutic potential.
RESPECT has two objectives. The first objective is to investigate how sensory (especially tactile) items might prevent or ameliorate present-day people's mental health conditions, aid wellbeing, and build respect for their own personal health management systems. As the ICA Conference has amply demonstrated, amuletic objects have been found in many prehistorical and historical cultures around the world, and such pervasive occurrences naturally invite continued in-depth research, but there are issues surrounding the first objective of the RESPECT project about wellbeing. How might there be any common ground between 'authorised', scientific healing and amuletic prophylaxis when the latter has been disparaged and labelled as 'superstition'? Is there work to be done on making specialised and professional vocabularies more open to inclusion and diversity? For 'amulet' is not a term that the medical establishment considers appropriate; there are only four UK AHRC research projects using the term, and no scientific research uses 'amulet' on the UK Research and Innovation Gateway to Research database, except as a drug name. Yet 2,441 (530 current) projects have researched 'wellbeing' indicating great interest in improving people's mental health. The increasing scientific interest in wellbeing, wellness and social prescribing fits within the first part of the RESPECT project remit as Participatory Action Research (PAR), following the success of the National Lottery Heritage Funded Medieval Animals Heritage PAR project. PAR is collective research allying researchers and participants to achieve social benefits. RESPECT's second objective is an in-depth examination of global cultural items ascribed with warding or healing properties held in British institutional collections that have thus far been excluded from the systematic examinations afforded to British amulets and will be combined with an historical analysis on the use of amulets, to expand our understanding of how mental health and wellbeing has been perceived in the past. This outreach encourages new audiences to utilise, decentre and diversify museum collections in radical ways and inspire new understandings of heritage ownership and belonging, akin to a new 'cultural politics of emotions'. This paper puts forward a tripartite methodology, linking scientific studies on wellbeing that include nature; 'green heritage' studies; and archaeological/historical research into prophylactic and apotropaic cultural material. RESPECT seeks to integrate the rich studies of amuletic culture with current social behavioural research.

Keywords: wellbeing, Medieval Animals Heritage (MAH), Participatory Action Research (PAR), climate emergency dragon, green heritage, amulet, Special Education Needs & Disabilities (SEND), prophylactic and apotropaic objects, integrative medical treatment

Introduction

As Professor D. Levene has phrased it, at the SMG Amulet seminar, 'Modern and indigenous medical belief systems are underpinned by separate paradigms' which cause 'tensions between modern medicine and traditional systems' in the management of non-communicable diseases (NCDs) (Levene et al., 2016, p. 122); and 'underline the need for improved understanding of traditional beliefs and practices' in Ethiopia, regarding NCDs (Mamo et al., 2019, p. 105). Annie Thwaite has also examined this breach between belief and scientific knowledge, noting 'amulets were relegated from the domain of authorised healing once it became a requirement to know and explain *how* cures worked, not just that they *did* work.' (Thwaite, 2019, Introduction, unpaginated). How might the separate paradigms meet and what methodologies would facilitate such a meeting? One way to explore these key problems

is to examine wellbeing, which is more complex than simply the absence of mental health illnesses for it includes not only medical, but also psychological, social, cultural and educational issues (Baxter & Burnell, 2022, p. 7). As an example, Professor Lisa Dikomitis's ethnographic and medical anthropological research has involved a global team to work on mitigating the impact of an incurable skin disease on wellbeing as part of a National Institute for Health and Care (NIHR) project, called 'Empowering people with Cutaneous Leishmaniasis: Intervention Programme to Improve Patient journey and reduce Stigma via Community Education' (ECLIPSE). ECLIPSE used arts, cultural and education activities to drive home the importance of seeking early diagnosis, and finding strategies for greater public understanding of the disease (Taffere et al., 2023, p. 1995), so as to improve the wellbeing of patients and mitigate the ostracism, exclusion, and stigma of this scarring disease (Nuwangi et al., 2024, p. 555). [1]

UK Research and Innovation (UKRI) lists 3,536 current projects involved in social prescribing (https://gtr.ukri.org search 29 June 2025), comfortably overtaking wellbeing (520 current projects) and defined as non-clinical prescribing for low-level mental health issues (Polley et al., 2023; for green social prescribing, see Seers et al, 2019).[2] One of the best known is probably the University College, London's (UCL) Mental Health, Arts, Culture and Resilient Communities (MARCH) project, which ran from 2018-2022. MARCH produced significant research on the impact of Covid on the mental health and wellbeing of England's population (Fancourt et al., 2020) and the team has since continued to research how to 'transform understanding of how social, cultural and community assets can support mental health' (see the MARCH website www.marchlegacy.org). MARCH has used Participatory Action Research (PAR) as part of its 'complexity science' methodologies (for example, on refugees' wellbeing and PAR, see Clini et al., 2019, p. 8) and to find out why and how social prescribing can help people, and its subsequent 'fRAmework of the DetermInants of Arts and Cultural Engagement' (RADIANCE) project has found 35 factors to aid the planning of successful arts and cultural engagements (referred to by Fancourt as ARTCeng) to improve people's wellbeing (Fancourt & Warran, 2024, p. 10).[3] Social prescribing has also included nature, heritage and archaeological engagements, for example, veterans, some with mental health issues, have enjoyed greater wellbeing from taking part in archaeological digs (Pennington et al., 2018, p. 63). Recent studies in conjunction with the MARCH network have explored best practice for heritage social prescribing and launched the AMPHORA (Authentic and Meaningful Participation in Heritage or Related Activities) toolkits and best practice guidelines (Burnell et al., 2024, p. 170).

Globally, the World Health Organisation (WHO) is driving home the links being forged between wellbeing, biomedicine, traditional medicine (TM) and complementary medicine (CM) and their respective practices. Traditional Medicine is defined in the draft as 'the sum total of the knowledge, skill and practices based on the theories, beliefs and experiences indigenous to different cultures, as well as scientific and professional expertise, used for the diagnosis, prevention and treatment of illnesses and to promote health and well-being' (WHO, 2024, p. vi). WHO's 2014-2023 Traditional Medicine Strategy listed its third strategic objective as 'To promote universal health coverage by integrating T&CM services into health care service delivery and self-health care.' (WHO, 2013, p. 53). WHO has now drafted a traditional medicine (TM) strategy for the period 2025 to 2034, that defines wellbeing as

> a positive state experienced by individuals and societies [...] determined by social, economic and environmental conditions. Well-being encompasses quality of life, as well as the ability of people and societies to contribute to the world with a sense of meaning and purpose'
> (WHO, 2024, p. vii).

Wellness is closely related to wellbeing, and defined by the Global Wellness Institute as 'the active pursuit of activities, choices and lifestyles that lead to a state of holistic health', which includes complementary medicine, but it also refers to a commercial market worth c. USD 223 billion in the UK and USD1.8 trillion in USA in 2022 (GWI, 2024, unpaginated), whilst another market researcher projects a rise to USD3.7 trillion between 2025 to 2034 (Patil, 2025, unpaginated), an indication of the financial importance of integrating T&CM, not overlooked by WHO. WHO's strategy for 2025-2034 is the integration of traditional medicine (and knowledge) and complementary medicine with biomedicine into 'Traditional Complementary and Integrative Medicine' (TCIM) (WHO, 2024, p. 1). On 26 May 2025, the World Health Authority formally adopted the draft strategy for strategic objective 3: 'universal access to safe, effective and people-centred TCIM' (WHO, EB/156 2024, p. 3 and Annex pp. 11-14) to put the research in place to construct the necessary inclusive TCIM evidence bases and to ensure proper regulatory systems so that everyone can benefit (Burki, 2025, p. 1897). The WHO strategy also means that traditional medicine that includes holistic, spiritual and personal care

[1] For ECLIPSE, 2018-2024, see the NIHR summary and ECLIPSE website which lists publications.
[2] See UKRI GtR link and NHS England » Social prescribing. For green social prescribing see NHS England » Green social prescribing both forms are supported by the UK's National Health Service.
[3] The RADIANCE project is about how to evaluate factors that affect engagement with arts and culture and improve wellbeing.

practices, and also takes account of the local natural environment, are approved for integration with biomedicine at the highest level. This WHO stamp of approval allows researchers to examine amuletic and talismanic material culture as evidence for social behaviours and responses to the need for wellbeing in premodern civilizations and to add to the evidence base for integrated care. If achieved in the ten-year period, the strategy will mark a paradigm shift from separation of traditional healing from biomedicine to closer integration. By focusing on apotropaic and prophylactic items from prehistoric and historic cultures, the RESPECT project presents the opportunity of releasing untapped resources for TCIM.

The ICA conference was a great opportunity to learn from fellow contributors, archaeologists, anthropologists, ethnographers, historians, and other key specialists to discuss amuletic finds (Duffin and Vieira, 2024). This coming together has allowed us not only to learn current research paradigms from across practically the whole world, but the ICA conference also permitted us to ask whether a participatory action research project on apotropaic cultural objects might also appeal to other researchers, which is why this article explores PAR, art and culture engagement, and wellbeing as well as medieval material culture and heritage. RESPECT intends to build on these beginnings and started with research questions and discussions.

Research Questions, Definitions and Topics

Material culture from prehistory to the present and across the globe includes apotropaic and prophylactic objects linked to faith and belief, as well as to social behaviours and customs. The key question is how can research on communities' use of amulets through the ages and around the world help inform and aid prophylaxis now, which is a main driver of the RESPECT project. This question anchors further research questions exploring how people conceptualise, understand, discuss and experience mental health in their communities now, and the different roles material culture might play in their conceptualisations and understandings of mental health.

Several more questions were explored at the Science Museum Group (SMG) Amulets conference, and these form the interrogatory context and background to the RESPECT project. We asked whether amuletic objects are about faith, custom, and belief; how they might aid wellbeing; whether they heal or are simply placebos, and finally we asked about different ways to think about faith and healing, including material culture, holistic approaches and wellbeing.

Dictionary definitions help strengthen ideas about how and why amulets have been used. An amulet, according to the *Oxford English Dictionary* (OED.com, amulet, n.3) is 'Anything worn about the person as a charm or preventive against evil, mischief, disease, witchcraft, etc.', whilst a talisman is:

> A stone, ring, or other object engraved with figures or characters, to which are attributed the occult powers of the planetary influences and celestial configurations under which it was made, considered to give protection against evil, danger, or disease, to impart good fortune, or to have healing properties. Hence: any object considered to have similar properties; a charm; (*Islam*) a scroll containing, or object engraved with, Qur'anic verses considered as protective or curative, often alongside symbolic figures.
> (OED.com. (n.d.). Talisman, n.², 1).

However, this last definition renders the talisman just another word for amulet, as it uses the same descriptor, 'charm'. The key difference is that a talisman incorporates text or characters, adding a deeper written and visual understanding to the sensory protective object. For example, the British Museum describes a medieval gold ring set with a toadstone (the tooth of a fossilised fish), as an amulet. Then the curator notes that the ring (British Museum, AF.1023) bears a legend to say it protected the wearer from 'fits, thieves and kidney trouble' (Ward et al., 1981, pl. 149; Duffin, 2008, pp. 33-44), turning the gold ring into a talismanic object as well as an amulet. As the example of the toadstone ring shows, an amulet's various cures/protections can seem unrelated. Thwaite considers it best to consider the power the object possesses as a way of understanding its healing properties (Thwaite, 2019, unpaginated). Similarly, Chris Wood at the ICA Conference discussed amulets as 'charged objects' (Wood, 2025, pp. 91-93), which implies empowerment, gained in choosing materials, creating (or at least finding) the object, and performance. For rituals associated with the amulet can also be a significant factor for the user's trust in its effectiveness. The phrase '*ex opere operato*' was (and is) also applied to the catholic church's sacraments; it means that the seven sacraments, for example the mass, work because they have been correctly performed (Wentworth, pp. 77-78).

Although some amuletic objects may bear little intervention beyond having been found and kept (four-leaf clovers, hagstones), many are artefacts, in that they were made, altered, and/or re-used to add agency and value, e.g., imbued with symbolism. Therefore, as with all material objects, amulets can be investigated and contextualised due to their cultural ubiquity and sensitivity (Kopytoff, 1986, p. 66; Caple, 2006, p. 6). Apotropaic and prophylactic personal objects were designed to operate in and integrate into the social environment in which they were created and reveal a great deal about the behaviours those cultures understood, expected and approved (rather than being concealed or lying outside orthodoxy). The turn towards the material culture remains relevant and has been

discussed in a recent book on Middle Eastern and North African amulets (Garcia Probert & Sijpesteijn, 2022, pp. 1-4). The remit for this paper is to demonstrate that by broadening our historical studies on the integration of material culture into behavioural aspects of quotidian devotion and beliefs, we have ways of comparing findings in contemporary research on behavioural science and then turning our Participatory Action Research into evidence for best practice and policy to improve people's lives now. It was clear from these initial discussions at the SMG Amulets Conference that questions on research topics frequently overlap (see Table 1: SMG Amulets Conference Research Topics). For example, Walker-Meikle discussed whether some animal amulets in national collections were genuine or made for the tourist market, e.g., a nineteenth-century Spanish silver-mounted badger's paw, (London, V&A ref. M.21-1917), and a badger snout from Minehead, dated to 1917 (London, SMG A666084) and how it mattered (Walker-Meikle, 2023, p. 111, on badger parts as medieval *materia medica*); Blud asked when does a (medieval) remedy become a charm and *vice versa*, linking embodied and enmeshed ideas on medieval and modern '4E' cognition (Blud, 2022, pp. 169-174).

No.	Topic	Examples	Significant areas of use
1.	Materiality: nature & healing:	makings using culturally significant items: man-made or natural, worn or kept close	embodied cognition and activation of benefits via personal interaction
2.	Lifecycle:	from hagstones and birthing girdles, to burial amulets	rites of passage, gift-giving
3.	Emotions:	fear, hope, control, love	fetishes, and taboos
4.	The senses:	decoration, speaking and writing about, and making, touching, holding them	wearing next to the skin, or close to the heart
5.	Belief:	Becket ampullae, St Chris-topher medallions, folklore	pilgrimage, ritual and prayer
6.	Protection:	toadstone rings, four-leaf clovers, magic symbols	worn about the body, on clothes or stitched into prayerbooks
7.	Preventative healthcare:	Healing, placebos, and bedside manners	how medicines are prescribed and taken involves rituals that affect patient anxiety, self-care, and wellbeing

Table 1: SMG Amulet Conference Research Topics
Source: D. E. Heath (2022). *SMG Amulets Conference Programme*. SMG, London

The overlap was most obvious concerning talismanic medieval birth girdles (strips usually made of paper, silk or parchment) inscribed with religious symbols, such as Christ's side wound, charms and prayers, that were used by women in pregnancy and labour. Amulets particularly associated with lifecycles also have great emotional resonances and often deeply spiritual or religious significance. At the SMG conference, Kierri Price whose research has focussed on manuscripts, material objects, and processes to do with protection and emotion, spoke about the materiality of birth girdle protection, asking how do you activate an amulet's benefits? Price studied a fifteenth-century birth girdle (London, Wellcome Collection, MS. 632), as part of her PhD supervised by Elma Brenner (Price, 2024a) and explained the bio-codicological non-invasive testing conducted on it. The worn and stained parchment girdle (damaged probably by kissing and rubbing), revealed peptides often present at childbirth, demonstrating it was probably used in the birthing chamber (Fiddyment et al., 2021, p. 12). This 'biomolecular evidence for active use' (Fiddyment et al., 2021, p. 1) draws in embodied cognition from its materiality and propinquity. The medieval girdle is resonant with emotions such as love, hope and fear, intrinsically caught up in rites of passage. Moreover, it is a tactile bandage of prayer charms to be rubbed, kissed, and spoken aloud, to both heal and ward. Such girdles were vitally important to relieve anxiety and aid wellbeing, for childbirth was the most dangerous time in a medieval woman's life (Price, 2024b, pp. 54-55; Price, 2025, unpaginated).

Bringing in the contemporary relevance of the birth girdle, Dr Lucy Allen's post-doctorate research on miscarriage, abortion, stillbirth and infertility in Medieval England led her, at the same conference, to speak on how 'we could draw upon this medieval amuletic model in the context of modern-day childbirth trauma, to develop material and cultural strategies to help traumatised parents heal' (Allen, 2022, p. 2), something other researchers and politicians also wanted to know (Reed et al., 2023, introduction; Clarke 2025, preface). As she has recently discussed in an online post on the relationship between medieval birth amulets and modern birth trauma (Allen 2025a), Allen's research led her to contribute to the Birth Trauma Inquiry concerning ways to mitigate the shock and trauma of pregnancy loss. In February 2024, after seventy-three recommendations from the independent Pregnancy Loss Review, the UK Government introduced baby loss certificates for pregnancy losses after 2017 (Atkins & Caulfield, 2024, unpaginated) and on 9 October 2024, these free Baby Loss Certificates were offered to everyone who lost a pregnancy before 24 weeks whenever it happened, (Merron & Streeting, 2024, unpaginated; Rosseinsky, 2024, unpaginated). As of 8 April 2025, 100,000 certificates have been issued, indicating that official recognition of their bereavement is an important aid for grieving parents (Merron, 2025, unpaginated). Research by medieval historians (Green, 2008; Harris-Stoetz, 2019, 2015; Donohoe, 2023, 2019; Davis, 2025) and archaeologists (Gilchrist, 2012, 2020; Nelson, 2006; Sørensen, 2000) on the uses of material culture in pregnancy and childbirth in the Middle Ages are becoming a resource for modern birth trauma relief, an indication of how amuletic research can change current perceptions of care (Allen 2025b, 2025c).

Case Study: The Climate Emergency Dragon and 'Green Heritage'

Extending medieval ideas of birthing amulets, reimagined as modern compassionate solace, leads into examining the mental health benefits of exposure to nature via medieval cultural 'green' heritage as a form of planetary as well as human wellness. The Medieval Animals Heritage research project (MAH) concentrated on wellbeing and 'green heritage'. The latter is a term which Professor Peter Vujakovic has coined as a way to value

nature in heritage spaces sites and 'improve both human wellbeing and the health of the planet' (Vujakovic, 2022, p. 1). He emphasises green heritage 'also involves interpretation of these sites via reference to the living world in the broadest sense, both in the past and the present' (Vujakovic, 2022, p. 2).

The enjoyment of nature is connected to wellbeing and is a key factor in PAR projects, which are frequently centred on engagement with art and culture, and community projects that use outside spaces (Vujakovic, forthcoming 2026) and archaeological and environmental projects that include social prescribing interventions (Burnell et al., 2024, p. 180). Moreover, the living element in heritage spaces can include water (blue heritage), such as the River Stour running through the Franciscan Gardens in Canterbury (Guerci & Adler, 2019, pp. 1-12). Besides place and space, interesting links between green heritage and apotropaic and prophylactic practices occur through the use of natural materials. For example, like some birth girdles, medieval parchment (animal skin) was sometimes used for talismans. The substrate was folded and hung over a belt or necklace, often under clothing, and next to the skin, to strengthen the feeling of protection via the wearer's sense of touch. An example is the thirteenth-century folded *Sheet of Incantations* in Canterbury Cathedral Archives (CCA-DCc-Add. Ms/23), with wheels (*rotulae*) and texts, e.g., to protect against storms (Skemer, 2006; Hill, 2007; Healy, 2016; Storm Hindley, 2023), which Dalton had linked to another medieval manuscript concerning talismans still held in Canterbury Cathedral, Llul's *Liber Maioris Voluminis Secretorum* (CCA-DCc/LitMs/B/8, Dalton, 1912, p. 136 and p. 142). The MAH project research connected green heritage, medieval apotropaic practices, and modern concepts of arts and cultural engagement in an integrative approach to research on

	Headline Outputs
50	Artists with sight/hearing loss exhibited art at Rochester Cathedral
50+	Delegates + students and local community members attended our Project Conference
80	Activities and events
304	Visited the Climate Emergency Dragon at Medieval Pageant Family Trail, 2022
400	Visited the Climate Emergency Dragon at Medieval Pageant Family Trail, 2023
1,000	Visitors came to the Franciscan Gardens to see the Greyfriars Dragon
1,000	Attended our SEND family events
1,300+	Pupils and staff at MAH school events
5,000+	Total Volunteer hours – 422 volunteers
5,000	People visited our MAH stand at Dover Dino Day 9 August 2023
12,286	Family Trail visits at Canterbury Medieval Pageant on 1 July 2023 +
34,306	at the Medieval Animal-themed Canterbury Medieval Pageant 2023
37,697	Visitors to Rochester Cathedral during Bestiary Exhibitions
46,421	Visitors to the Beaney YC SEND Summer Showcase
59,593	Views of Medieval Animals Heritage blog reports
125,000+	People enjoyed in-person engagement with Medieval Animals Heritage Project

Headline Outcomes

Life-changing individual impacts:

You have given us a lifeline

'Our children have blossomed.'; 'He came out that session 2 feet taller!'

'My child made me a gift – it's the first thing they've ever made me.'

'Your Wildwood visit gave my son the confidence to conquer his social anxiety, now he can take the bus to college by himself.'

'You've made me realise I can go to Uni.' (and they have) 'We want to come to this Uni'

You've given me confidence as a volunteer. We made a dragon – brilliant!

'Now we go medieval animal hunting round all our local churches.'; 'Now we go fossiling'

Changing ideas and actions:

Your Beastly Latin means there's a state school class learning medieval Latin.

It has been a real joy watching our students come up with ideas and develop their projects. They've gained so much from their participation

'I was surprised at just how generative working with medieval animal heritage can be for SEND children. I was deeply moved.'

We shall use this heritage in our Museum.

Headmasters' comments: 'Aspirational and inspirational visit'; 'The pupils were the most excited I've ever seen: a highlight of the year.'

We know we can welcome SEND children now – our archives are not just for specialists

That huge blue Bonnacon stole the show!

Canterbury Christ Church University

CKHH Centre for Kent History & Heritage

Table 2: MAH Project Outputs and Outcomes
Source: D. Heath & P. Bernard (2024). *MAH Project Leads' Report: Evaluation.* Canterbury Christ Church University

fostering wellbeing. Table 2 'Outputs and Outcomes' summarises the whole MAH project, which organised eighty activities in 30 months.

The project context is followed by a description of the Climate Emergency Dragon installation, the activities centred around it, and an analysis of participant interviews. As I shall demonstrate, work on the MAH project has already proven the therapeutic potential of our approach.

In and after the COVID pandemic (September 2021-March 2024) this ambitious project brought increased wellbeing and skills to East Kent's deprived local communities via a neglected but wonderful and nationally important heritage. Medieval animals and their rich heritage 'afterlife' in animal history and culture (think Fantastic Beasts and Pokémon but weirder!) were real and imaginary creatures in medieval books, paintings, and sculptures that expressed their times' sense of wonder in the natural world, e.g., St Anselm's soaring eagle or Rochester Bestiary's brave lions. Our project focused on the rich diversity of East Kent Medieval Animals Heritage (MAH) connected to the life and legacy of the remarkable Saint Anselm (c. 1033-1109), theologian and Archbishop of Canterbury. Anselm oversaw a spiritual and intellectual renaissance in East Kent, he 'touched the thought, the piety and the politics of the time at every point and gave new images and new lines of thought to those who came under his influence' (Southern, 1980, p. 443). Less well-known is Anselm's emphasis on creation and the natural world. Medieval animals have been linked to St Francis of Assisi but this project brought the much more ancient bestiary tradition to the fore and showed how these books were used by St Anselm and Honorius Augustodunensis (c. 1080-1140) in East Kent to connect spirituality to people's emotions in what became an important local and international heritage. They engaged people's feelings by making animals the bearers of emotional meanings.

We reimagined Anselm's creativity to help families whose children have special needs (SEND) understand their emotions; bring communities together and support people's wellbeing by enthusing them about local heritage. Using inspirational medieval 'green heritage' traced in diverse sources (rare native animals, zooarchaeology, dioramas, medieval archaeology, manuscripts, folklore, traditions), to foreground local, regional, and national history and urgent eco-system sustainability engagement. We brought communities and specialists together, creating flexible opportunities for more people to be directly involved in identifying, explaining, and sharing it, in exciting, inclusive, and resilient ways. We ran small-scale sustainable eco-heritage events wellbeing projects for SEND Families (carefully safeguarded and ethics-led), e.g., Medieval Animal Heritage Safari days seeing the now rare native species at Wildwood Zoo, and ran long term volunteer activities e.g., Beastly Latin (translation of the earliest

Latin Bestiary and writing stories inspired by the translations). Volunteers developed heritage skills via website and social media outputs, by managing a conference and three exhibitions, including a three-month loan exhibition of the beautiful Rochester Bestiary (London, British Library, Royal MS 12 F XIII), celebrating its c. 800th birthday at the site where it was made, in Rochester Cathedral. The Climate Emergency Dragon (Fig. 1) was a part of the MAH project. As the University's main campus is on the site of the outer precincts of the medieval St Augustine's Abbey, the dragon was also designed as green heritage, with the Romanesque dragon carved Caen stone relief *spolia* from the Abbey as the starting concept (see Figure 2).

In medieval bestiaries, including those that belonged to St



Figure 1. Photograph of the Climate Emergency Dragon's recycled rubble base
Source: D. E. Heath. June 2022.



Figure 2. Romanesque Dragon, Caen Stone fragment, *spolia*. St Augustine's Abbey, Canterbury, English Heritage Object No. 78203129
Source: D. E. Heath.

Augustine's Abbey, the dragon was regarded as the evil king of reptiles.[4] This creature not only tripped and strangled elephants in its coils but also lurked beneath the giant Perindens Tree in the Far East, where it would eat the doves who unwisely left the safety of the tree (Clark, 2006, pp. 193-194). The Perindens Tree represented the Church, the dragon was the devil, and the doves were laypeople who needed the shelter of the Church to protect them from evil. The tree in Becket Gardens, under which our Climate Emergency Dragon was set, is an apple tree. The Latin for apple tree is '*malus*', the same word for evil in Latin, forging a connection between the bestiary Dragon and the biblical tree of knowledge in the Garden of Eden from which Eve picked the apple she gave to Adam at the behest of the snake (Genesis, 3:6). Yet in medieval heraldry, the dragon was also considered a wise protector of treasure, thus adding to the rich mix of medieval dragon allegory. As the dragon was the most fiery and angriest creature in the medieval bestiary, it was an excellent way to raise awareness of today's current environmental emergencies.

The dragon was constructed in June 2022 on the campus of Canterbury Christ Church University. It measured 12m long by 5m wide at the broadest point and 1.5m high to the top of its body. As a shaped and moulded form, constructed from recycled and renewable products, the dragon demonstrated a sustainable future through sculptural artwork. Students, staff, and Kent residents, volunteers and SEND families, and visitors built the dragon from recycled rubble covered in hessian, clay and drought-resistant sedum on the wings and body, while the dragon's neck and tail were doused in moss spore soup, made from non-potable ale dregs, hops grown on the campus and brewed in Canterbury (Byrne, 2020, p. 64; Hills, 2022 unpaginated). Moss is an excellent form of carbon capture, and we expected the dragon to become naturally green and velvety in its enclosed Edenic garden environment, under the shade of the apple tree, while it served as a teaching aid to demonstrate the need for a sustainable future and to improve our wellbeing. However, 2022 was the hottest summer on record for the area, so instead we had a scaly-faced dragon, cracked and dried from the heat (Figure 3), which many visitors on the Medieval Family



Figure 3. Climate Emergency Dragon, its cracked clay face representing the universal need for water.
Source: D. E. Heath, July 2022.



Figure 4. Amuletic stone placed on Dragon's Tail
Source: D. E. Heath, July 2022.

[4] There are four extant bestiaries (or parts thereof) from St Augustine's Abbey spanning the thirteenth century: Paris, BnF NAL 873; Oxford, Bodleian Library, Rawlinson C.77; Oxford, Bodleian Library, Douce 88E, Canterbury, CCAL Lit MS D.10, the last two are illustrated.

Trail in July 2022 linked to climate warming, and over fifty added their named stones to its tail, turning the dragon into an amulet of hope for the future (see Figure 4).
Between 2022 and 2023 various activities were recorded on Twitter (Search / X #cccuclimatedragon). The wellbeing value of the dragon was further increased by SEND art and cultural engagement activities, such as the mumming, dragon-storytelling, dragon-egg hunting, and making dragon costumes at the Dragon Celebration Day for SEND families held 23 April 2023, St George's Day (Figure 5).



Figure 5. Dragon Celebration Day, some of the SEND children on a Dragon Egg Hunt round Baby Dragon in Becket Gardens, 23 April 2023. Source: D. E. Heath

Further SEND engagements consisted of Christmas dragon activities and re-using the dragon costumes (Figure 6) to parade in the Canterbury Medieval Pageant in 2023, which brought over 30,000 visitors to Canterbury (figures from Canterbury BID).



Figure 5. Children in Dragon Costumes in Medieval Canterbury Pageant, 2023 (the theme was Medieval Animals).
Source: copyright Peter Joyce (*@pepsoft)*, used with kind permission.

The Dragon was designed to be a vehicle of symbolic communication, embedding sustainability-related messages through an example of non-academic dissemination. As part of the 'Climate Sins and Climate Virtues' strand of the Deep Education and Community Action Project on Education for Sustainable Development (ESD), (Ali, 2024, p. 13), the Dragon engaged diverse audiences and provided public and community visibility of the climate emergency, green heritage and sustainability themes and became a case study of multimodal education. The dragon also became part of campus life and appeared on the sustainability campus map; it was non-binary, green, and sustainable, and these characteristics appealed to different groups of students, some of whom were photographed by the University for Disability Week and Pride. Moreover, the construction of a second dragon in the same enclosed garden turned a plain monoculture lawned area into a thriving eco-sensory space scented by camomile, sage and rosemary. We organised site visits with linked art activities during the Canterbury Medieval Family Trail in 2022 and in 2023. In 2022, a project participant took notes on how adults and children interacted with the dragon, whether they wanted to paint their name on a stone and add it to the dragon's tail to remember the event and feel part of the project. Here is the transcription of a page from her Dragon notebook.

> 'Do you want to be part of a dragon?'
> 'I can't do that.'
> 'How about you write your name on one of these stones and add it to the tail, then you will always be part of it.
> 'Just my name?'
> 'Or a message or whatever you like.'
> 'Oh, OK . . . I said hello from me.' [One of the young visitors]
> 'Can I do another one for my hamster that died?
> 'Absolutely and they can live on it that way too. [8-year-old visitor].

These engagements speak to memory and emotion, via an amuletic practice of wellbeing, in the form of reciprocal gift giving; by being given a stone suitable for writing or drawing on, then giving it to the dragon and taking home the memory of having helped the dragon to grow. This activity was inspired by amuletic pilgrim tokens that were very popular in the Middle Ages, and especially in Canterbury because of St Thomas Becket's shrine (Butler, 1995, pp. 23-33; Koopmans, 2025, pp. 6-14). One extant ampulla bears the legend in Latin 'Thomas is the best doctor of the worthy sick' (Museum of London, Object No. 8778). The young child who mourned her pet hamster was comforted by joining in the creative memorial the dragon facilitated. The actions of the visitors turned the dragon eco-installation into a site of memory, creativity and wellbeing, imbued with the heritage of medieval ideas of talismans and amulets.

Analysis

Twenty-one participants recorded 121 interviews with an independent researcher in October 2024 for the MAH project evaluation; 49 responses referred to wellbeing and nineteen of these referred to the Climate Emergency Dragon (see Table 3 below). The responses were divided into the five sub-headings of the NLHF report parameters on wellbeing (NLHF, 2024, p. 6) that are based upon NHS 'Quality of Life' subjective measures: connect, be active, take notice, keep learning, give (Aked & Thompson, 2011, p. 8). The responses from participants are identified by the number of the

	People will have greater wellbeing responses analysed by NHS Quality of Life Subjective Measures.	Total Responses
A.	*Enjoyed the opportunities for social interaction/meeting families*	5/9
B.	*Reduced anxiety and increased confidence/self-belief*	3/11
C.	*Feeling safe, accepted, and included*	2/11
D.	*Achieving something/feeling contribution is valued*	4/7
E.	*Enjoyed learning about heritage*	5/11
	Total for Climate Emergency Dragon/ whole Project:	**19/49**

Table 3: Breakdown of Wellbeing Outcomes relating to the Climate Emergency Dragon
Source: Worthington and Heath, 2026

Category/Theme	People will have greater wellbeing analysed by Inclusivity, Agency, Perceptions, Creativity & Activity						Total Row
Inclusivity	EDI 4/13	SEND 7/16	Other 1/6	>25 4/6	<25 2/5	Never b4 engaged 1/3	19/49
a. Heritage/learning	1/3	1/1	0	1/2	1/2	1/1	5/9
b. Inclusion of Popular Knowledge	1/1	1/2	0	1/2	0/1	0	3/6
c. Agency	1/5	2/7	1/2	1/1	1/1	0/1	6/17
d. Perceptions	1/3	2/4	0/4	0/1	0	0	3/13
e. Creativity/Activity	0/1	1/2	0	1/1	0/2	0/1	2/6
Total Column	4/13	7/16	1/6	4/6	2/5	1/3	19/49

Table 4: Wellbeing Outcomes aligned to PAR factors
Source: Worthington and Heath, 2026

interviewee, followed by interview number, e.g., (1,10), and all are taken from independent research interviews (Worthington and Heath, 2026). No negative comments on wellbeing were made by interviewees.

The comments were also assessed for five PAR factors (see Table 4: Wellbeing outcomes aligned to PAR Factors): (1) inclusivity (as an interviewed participant remarked, 'It's an absolutely inclusive project.'(18, 4); (2) popular knowledge inclusion; (3) agency; (4) perceptions; and (5) creativity and activity, so as to map the themes that pertain to PAR (Worthington and Heath, 2026).

The interviews reveal that those few who were older, or had not engaged in heritage activities before, were drawn to the events and activities to learn about the heritage, which they thought would be 'fun' (1,10) or help them keep mentally 'active' (2,9). However, those people who specifically mentioned inclusivity, SEND or other health issues, and were younger, mostly under 25 (85%), generally noted how the project impacted upon their and others' perceptions and agency, e.g., 'the older children in the project they developed this confidence […] helping the younger ones as well. So, I think it was really nice to see them blossom,' (19,4). This points to participants' more nuanced understanding concerning learning about the heritage and their own knowledge base,' The thing I really loved is I got to bring [in] some of my own knowledge…' (17,2), and their strength of commitment and sense of empowerment, e.g., 'it made me realise that I could contribute to a special needs project.' (19,3). These factors led them to identify their achievements and increase their self-esteem, as well as their perceptions, values and creative approaches, 'we made costumes for the er… parade in Canterbury. They [the SEND children] were all running around being dragons, it was brilliant' (21,1). This is a significant finding as it emphasises the importance of this five-pronged PAR approach for our participants, because the inclusive participation and inclusion of their knowledge increased their feelings of empowerment, and opened some people up to consciousness raising and education, and social/environmental activism.[5]

PAR requires inclusive equal participation by the people being studied, which means the composition of the PAR community needs to be carefully defined (Lloyd-Evans, 2023, p. 9). In this project SEND families, staff, students and volunteers fully participated in the dragon events and activities. In the wider MAH project, local schools, online Latinists, and local community groups also took part, for example, Daws' Mess Room Medway and Canterbury sight-loss artists. The core aim of the project was to explore the benefits of local medieval green heritage participation for SEND families and volunteers and local cultural vitality (Eagle, 2025, p. 9 and p. 15).

Although it was a mainly viewed as a pleasure (if a muddy one) to take part in building the climate emergency dragon, outside in a lovely campus during a hot summer, because this project occurred at the end of the pandemic, there were participants who became seriously ill, lost loved ones, and were beset by depression and anxiety. Inclusivity, care, kindness and wellbeing were vital issues. Even though unwell, participant 16 helped construct the dragons at the University campus and then assisted at Dragon-centred Family SEND events. They gained enough confidence to give a talk on their experiences at the Project Conference, on the wellbeing benefits of the climate emergency dragon, summing up their experience, as

> it makes you feel lighter this project. […] I mean, when we made the dragon […] there would be days when I couldn't come and I'd get really upset that I wasn't able to do it and then the following week I'd come along and I'd be like 'this is the highlight of my week.'
> (16.5).

A parent whose SEND child was at first too shy to speak, noticed how her child gained in confidence and how she herself felt an integral part of the project too 'I felt like I was someone that was respected and that they wanted to make a difference to me as much as to my children' (11,15).

The inclusion of popular knowledge is a key difference to the NHS wellbeing subjective measures. 'The knowledge built by PAR is explicitly knowledge-for-action, informed by the relational ethical considerations of who and what the knowledge is for' (Cornish et al, 2023, p. 8). Knowledge about medieval animals was shared and reinterpreted (17,2) as was SEND information (8,1). We had conducted surveys and sought advice from SEND parents before and during the project and their knowledge led us to set up break-out spaces, to inform

[5] These five points emerged from emails and discussions with MAH Board member Professor Emeritus Peter Vujakovic, regarding his work on PAR and disability access mapping.

participants before and at the event, and respond quickly to feedback. Participants' knowledge was included in the research and expanded by access to different areas of learning, activities and social networking. For example, an online participant visited the dragons with his online colleagues and attended the Project Conference and Pageant which brought him together with other volunteers (1,10). Participant 17 noted how SEND children learning about heritage via art and craft led to the 'beautiful creativity' (17,5) of a dragon-inspired Melusine. It was her project experiences that led her to go into teaching training.

Thirdly, the PAR focus on empowerment was a key part of the project, evidenced by participants' involvement and agency. In the focus group, two interviewees independently noted seeing the SEND children 'blossom' (19,4; 21,1). One participant focused on how the dragon activities were meaningful and worthwhile and remembered a dragon hat made by her SEND child for the Dragon Celebration Day 'went in a museum' (14,4). Another participant remembered how the hat was exhibited in the SEND Young Curators' MAH Showcase at the Beaney House of Knowledge in Canterbury and seen by over 45,000 people over summer 2023 (18,4).

PAR is also about perceptions including consciousness raising and education. In engaging with constructing, or other activities round the dragon (4,1), participants including SEND families learned from their own experiences, and learnt about climate emergency and sustainability, 'They all got to learn about heritage, they all got to learn about the ways that … this project helping SEN families and […] learn about sustainability in the process' (7,5). One participant, with some special needs herself, found she learnt a great deal about the heritage and SEND that helped her understand how she felt and how SEND families felt, 'I learnt about how the parents really want their kids to feel safe […] (8,5). Another participant found the Dragon Mumming play 'moving…magical, really' (14,2), which speaks to the ability of drama to raise issues.

Finally, PAR includes social and political action, and the climate emergency dragon became a site for public art activism. For example, the art activities and talks given by MAH participants as part of the Medieval Canterbury Trail in 2022 and SEND children taking part in the Pageant in 2023 (21,1 and Fig. 6). A talk, exhibition and workshop were delivered at the Social and Environmental Justice for a Sustainable Future in October 2022 on 'Dragon Wrangling: Public Art Activism' (Simpson, 2022, unpaginated). A local Scout group came to decorate the dragon with oyster shells set in clay in August 2022 (a muddy evening); one scout summed up that they 'liked the eco-friendly mud dragon living in CCCU.' The Academy for Sustainable Futures students gave eco-tours for that included the Climate Emergency Dragons, including in December 2023 when 44 Year 8 pupils from Royal Harbour Academy, Ramsgate enjoyed an eco-heritage day on sustainability and wellbeing and visited the campus dragons, 'We have a coachful of inspired youngsters who have truly had their eyes opened.' (Lower School Head).

PAR has been criticised as 'no panacea' (Smith-Carrier & Van Tuyl, 2024, p. 475) and linked to tensions created in government and universities regarding communities' activism and lack of funding (Sandwick et al., 2018, p. 477; Lambley, 2025, p. 146). Yet MAH received a great deal of support from stakeholders and the wider community. However, poor SEND provision has become an increasingly political issue in Kent; SEND parents staged a protest handing in a petition of nearly 86,000 signatures to County Hall (Dale & Johnson, 2023, unpaginated). The need for more activities for SEND families in Kent is illustrated by the sheer number of under 16 year-olds on disability benefits: 13,017 children were recorded in the Medway, Canterbury, Dover and Thanet areas that the project covered, some 10.4% of the population; higher than the average percentage for the whole county, which was 8.8% (KCC Disability in Kent 2024, p. 17). The figures only include those on benefits, ignoring the long waiting list for diagnoses. Our small, innovative programme reached a thousand SEND family members but barely scratched the surface of East Kent SEND families' need for suitable activities.

Conclusions

Green heritage may be one answer to how do we add historic understandings of wellness and solace to contemporary ideas. For example, the Climate Emergency Dragon, built in Becket Gardens, had such a dragon-like scaly face of cracked clay (Fig. 5), it emphasised to all how lack of water was of such vital concern. The MAH project demonstrated linking green heritage to wellbeing helps local communities engage with both their history and their local environment and aids a sense of belonging. The project valued all participants' experiential knowledge, whether in Latin, green heritage, or SEND, creating empowering relationships.

Medieval dragon amuletic art has continued in Kent. Artist Wendy Daws, who worked with MAH and Rochester Cathedral in 2023, crafted creatures from the Rochester Bestiary with Medway schoolchildren and artists with sight loss, using recycled materials including foil, some shaped into leaves for a Perindens Tree artwork with entwined dragon (Table 2). We discussed how 'amuletic' these inscribed leaves were. As part of the continuing celebrations of Rochester Cathedral Medieval Library and their *Textus Roffensis* custumal, Wendy designed a much more ambitious project. A twenty-metre-long dragon was suspended above the Rochester Cathedral nave in summer 2024 (Draco Roffensis, 2024, unpaginated), made from 12,500 individual foil scales, decorated by cathedral visitors and

local communities. The scales, like the metal leaves of the previous year's project, resembled medieval pilgrim badges sewn in Books of Hours (Duffy, 2011, pp. 39-40; Heath 2016, p. 7) or worn on clothing, turning the huge dragon into a giant prayer-carrier. The addition of tokens to medieval Books of Hours made the book itself into an amulet, through the power of words and the power of touch to comfort, solace, and heal – ideas helpful today.

Cultural, social, and communal memory are powered by popular beliefs and strengthened by community involvement. It may be possible to reshape perceptions by engaging both traditional and modern healing strategies in UK research and perhaps even globally, but much work needs to be done to link individual projects to integrative medicine. Yet, change is happening, in May 2025 the *Lancet* reported that WHO Director-General, Tedros Adhanom Ghebreyesus said, 'traditional medicine is just medicine,' indicating the paradigm shift in global medical integration (Burki, 2025, p. 1897). Studies of amulets from across the globe and from many centuries have the chance to add important historical understandings of social behaviours and help improve contemporary wellbeing and care. In terms of the RESPECT project, amuletic research, accompanied by inclusive participation in historical, archaeological and green heritage projects, is set to provide a deep reservoir of timely therapeutic interventions. RESPECT's rich evidence will reshape and augment this use of historical evidence for personal, civic and environmental wellness and cultural vitality.

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References

Ahmed, S. (2014). *The Cultural Politics of Emotion*, 2nd ed. Edinburgh University Press.

Aked, J. & Thompson, S. (2022). *Five Ways to Wellbeing: New applications, new ways of thinking*. NEC.

Ali, Z. (2024). 'Swallowing a world': Reflections on education for sustainable development in higher education. In N. Kemp and A. Bainbridge (Eds.), *Good Education in a Fragile World: The Value of a Collaborative and Contextualised Approach to Sustainability in Higher Education* (pp. 13-26). Routledge.

Allen, L. (2022). SMG Amulets Conference Abstract, Science Museum

Allen, L. (4 June 2025a). 'Protecting the Mother from Harm: Birth Amulets, Birth Trauma, and a Lesson from History', *Writing the Garden* (unpaginated). Substack.

Allen, L. (15 October 2025b). 'What is too small for Grief? Pregnancy Loss Awareness Day', *Writing the Garden* (unpaginated). Substack.

Allen, L. (15 November 2025c). 'Medieval Birth Charms and the Making of Maternal Communities' *Writing the Garden* (unpaginated). Substack.

Atkins, V. & Caulfield, M. (22 February 2024). Baby loss certificate launched to recognise parents' grief. *DHSC Press Release*. gov.uk.

Baxter, L. & Burnell, K. (2022). What is wellbeing and how do we evaluate it? In P. Everitt & K. Burnell (Eds.), *Archaeology, Heritage, and Wellbeing: Authentic, Powerful, and Therapeutic Engagement with the Past,* (pp. 7-26). Routledge.

Blud, V. (2020). Making Up a Mind: '4E' Cognition and the Medieval Subject. In J. Dresvina & V. Blud (Eds.), *Cognitive Sciences and Medieval Studies: An Introduction* (pp. 163-182). University of Wales Press.

Burki, T. (31 May 2025). WHA adopts new strategy on traditional medicine. *Lancet*, 405. 1897-1898. www.thelancet.com.

Burnell, K. J., Everill, P., Makri, E., Baxter, L. & Watson, K. (2024). Developing the AMPHORA policy guidelines for heritage projects as mental health interventions: a Delphi consultation. *Mental Health Review Journal*, 29(2),168-184. https://doi.org/10.1108/MHRJ-12-2022-0076

Butler, J. R. (1995). *The Quest for Becket's Bones: The Mystery of the Relics of St Thomas Becket of Canterbury*. Yale.

Byrne, L. (2020). Z is for Zyme. In S. Sweetinburgh & D. E. Heath (Eds.), *Canterbury Heritage A to Z: An Encomium in honour of Professor Jackie Eales and Professor Peter Vujakovic*. Canterbury Christ Church University Press.

Cadbury, T. (2021). 'Collecting English Magic: Materiality, Modernity, Museums', PhD thesis, University of Bristol, unpublished.

Cadbury, T. (2015). Amulets: The Material Evidence. In R. Hutton (Ed.), *Physical Evidence for Ritual Acts, Sorcery and Witchcraft in Christian Britain* (pp. 188 -208). Palgrave Macmillan.

Caple, C. (2006). *Objects: Reluctant Witnesses to the Past*. Routledge.

Clark, W. B. (2006). *A Medieval Book of Beasts: The Second-Family Bestiary, Commentary, Art, Text and Translation*. Boydell Press.

Clarke, T. (2025). *Breaking the taboo: why we need to talk about birth trauma*. Biteback.

Clini C., Thomson, L. J. M, & Chatterjee, H.J. (2019). 'Assessing the impact of artistic and cultural activities on the health and well-being of forcibly displaced people using participatory action research,' *BMJ Open* 2019;9:e025465. doi: 10.1136/bmjopen-2018-025465

Cornish, F., Breton, N. Moreno-Tabarez, U., Delgado, J., Rua, M., de-Graft Aikins, A. &, D. (2023). Participatory action research. *Nat Rev Methods Primers* 3(34), 1-14. https://doi.org/10.1038/s43586-023-00214-1

Dale, B & Johnson, N. (2023). Kent parents lead call for SEND provision reform (unpaginated) *BBC News Kent online*.

Davis, I. (2025). *Conceiving Histories: Trying for Pregnancy, Past and Present*. MIT Press.

Dalton, O. M. (1912). *Franks Bequest Catalogue of the Finger Rings, Early Christian, Byzantine, Teutonic, Mediaeval and Later, Bequeathed by Sir Augustus Wollaston Franks, KCB, in which are included the other rings of the same period in the Museum*. British Museum Press.

Donohoe, R. (2023). Locating Childbirth Devotion in the English Parish Church, 1450–1580. *The Historical Journal*. 66(4), 725-745. doi:10.1017/S0018246X23000134

Donohoe, R. (2019). 'Unbynde her anoone': the Lives of St. Margaret of Antioch and the lying-in space in late medieval England. In V. Blud, D. Heath, and E. Klafter (Eds.), *Gender in medieval places, spaces and thresholds* (pp. 139–156). University of London Press.

Duffin, C. J. & Vieira, A. (2024). (Eds.), *ICA Conference International Conference on Amulets 15th – 16th November 2024 Abstracts*. Museu de Arqueologia D. Diogo de Sousa. https://icamulets.wixsite.com/amulets/

Duffin, C. J., (2008). 'Fossils as Drugs: pharmaceutical palaeontology', *Ferrantia* (Travaux scientifiques du Musée national d'histoire naturelle Luxembourg), 54, 1-83.

Duffy, E. (2011). *Marking the Hours*. Yale University Press, New Haven CT.

Eagle, R. (2025). *Research Digest: Understanding Cultural Vitality*. Centre for Cultural Value.

Fancourt, D., Steptoe, A., & Bu, F. (2020). Trajectories of anxiety and depressive symptoms during enforced isolation due to COVID-19 in England: a longitudinal observational study. *The Lancet Psychiatry*. 10.1016/S2215-0366(20)30482-X

Fancourt, D. & Warran K. (2024). fRAmework of the DetermInants of Arts aNd Cultural Engagement (RADIANCE): integrated insights from ecological, behavioural and complex adaptive systems theories [version 1; peer review: 2 approved]. *Wellcome Open Res*, 9:356, 1-25. https://doi.org/10.12688/wellcomeopenres.21625.1

Fiddyment, S., Goodison, N. J., Brenner, E., Signorello, S., Price, K., & Collins, M. J. (2021). Direct evidence of the use of a medieval English parchment birthing girdle from biomolecular analysis. Royal Society Open Science 8(3), 1-14. https://doi.org/10.1098/rsos.202055

Garcia Probert, A., & M. Sijpesteijn, P. (2022). (Eds.), *Amulets and Talismans of the Middle East and North Africa in Context*. Brill.

Gilchrist, R. (2012). *Medieval life: archaeology and the life course*. Boydell and Brewer.

Gilchrist, R. (2020). The materiality of magic: the ritual lives of people and things. R. Gilchrist (Ed.), *Sacred Heritage: Monastic Archaeology, Identities, Beliefs* (pp. 110-144). Cambridge University Press.

Global Wellness Institute (2024). *Geography of Wellness Country Report: UK*. Market research paper Wellness in the United Kingdom - Global Wellness Institute GWI.

Green, M. H. (2008). *Making Women's Medicine Masculine: The Rise of Male Authority in Pre-Modern Gynaecology*. Oxford University Press.

Guerci, M. & Adler, G. (2019) Riverine. Architecture and Rivers - Long Introduction. In *Riverine. Architecture and Rivers*, (pp. 1-12). Routledge.

Harris-Stoertz, F. (2015). Lying-in in High Medieval England and France. In Gislon Dopfel, C., Foscati, A., & Burnett, C. (Eds.), *Pregnancy and Childbirth in the Premodern World: European and Middle Eastern Cultures, from Late Antiquity to the Renaissance*, (pp. 227-248). Brepols.

Harris-Stoertz, F. (2015). Remembering Birth in Thirteenth- and Fourteenth-Century England. In E. Cox, E. Herbert McAvoy, & R. Magnani (Eds.), *Reconsidering Gender, Time, and Memory in Medieval* Culture, (pp. 45-59). D.S. Brewer.

Healy, M. (2016). Wearing powerful words and objects: healing prosthetics. *Textual Practice*, 30(7), 1233-1251. https://doi.org/10.1080/0950236X.2016.1229905

Heath, D. (2016) Tokens of Affection. *History Today*. 66 (2), 7.

Hill, J. (2007). The Story of the Amulet: Locating the Enchantment of Collections. *Journal of Material Culture*, 12(1), 65-87. https://doi.org/10.1177/1359183507074562

Hills, J. (2021). Hopping for a Good Harvest! | Sustainability. *Canterbury Christ Church*

Jones, K. (2022). Greening the past: putting history in its place at the ecological university. Emerald. *International Journal of Sustainability in Higher Education*, 23(1), 58-66. DOI 10.1108/IJSHE-07-2020-0233

Kent County Council (2024). Disability in Kent 2024, KCC Report.

Koopmans, R. (2025). Trans and Ed., *The Passion and Miracles of St. Thomas Becket by Benedict of Peterborough*. Boydell.

Kopytoff, I. (1986). The cultural biography of things: Commoditization as a process. In A. Appadurai (Ed.), *The social life of things: commodities in cultural perspective* (pp. 64-91). Cambridge University Press.

Lambley, R. (2025). The challenges of navigating participatory research: the perspective of a doctoral student who co-ordinates a team of researchers with lived experience of mental health challenges, *Educational Action Research*, 33 (1), 143-152. DOI: 10.1080/09650792.2024.2429444

Levene, D., Phillips, D. I., & Alemu, S. (2016). Medical traditions and chronic disease in Ethiopia: a story of wax and gold? *Tropical doctor*, *46*(3), 122–125. DOI: 10.1177/0049475516655060

Lloyd-Evans, S. (2023). *Participatory Action Research: A Toolkit*. University of Reading.

Mamo, Y., Dukessa, T., Mortimore, A., Dee, D., Luintel, A., Fordham, I., Phillips, D. I. W., Parry, E. H. O., & Levene, D. (2019). Non-communicable disease clinics in rural Ethiopia: why patients are lost to follow-up. *Public health action*, *9*(3), 102–106. DOI: 10.5588/pha.18.0095

Merron, G. & W. Streeting. (9 October 2024). Certificates recognising heartbreak of losing a baby extended. *DHSC Press Release* (gov.uk).

Merron, G. (8 April 2025). More than 100,000 baby loss certificates have now been issued. *DHSC Press Release* (gov.uk).

NLHF (2024). Inclusion good practice guidance | The National Lottery Heritage Fund.

Nelson, S. M. (2006). *Handbook of gender in archaeology*. Alta Mira Press.

Nuwangi, H., Dikomitis, L., Weerakoon, K.G., Agampodi, S.B. & Agampodi, T.C. (2024). The psychosocial burden of cutaneous leishmaniasis in rural Sri Lanka: A multi-method qualitative study. *PLOS Neglected Tropical Diseases*, 18(1) 1-19. doi.org/10.1371/journal.pntd.0011909

Pennington, A., Jones, R., Bagnall, A.-M., South, J., & Corcoran, R. (2018). *The Impact of Historic Places and Assets on Community Wellbeing – a Scoping Review*. What Works Centre for Wellbeing.

Patil, R. (2025). U.S. Health and Wellness Market Size to Hit USD 3.70 Trillion by 2034 *Market Research Report*. Precedence Research.

Polley, M.J., Fleming, J., Anfilogoff, T. & Carpenter, A. (2017). *Making Sense of Social Prescribing*. University of Westminster.

Price, K. (2024a). Books, bodies, and belief: awkward technologies of protection in late medieval England. PhD thesis, Birkbeck, University of London.

Price, K. (2024b). Birth Girdle. In E. Jackson & J. Harrison (Eds.), *Medieval Women: Voices & Visions, The Book of the British Library exhibition* (pp. 54-55). The British Library.

Price, K. (2025). Medieval Women: Voices and Visions, British Library exhibition review. *Science Museum Group Journal* 23(1). https://dx.doi.org/10.15180/252308

Reed, K., Ellis, J., & Whitby, E. (2023). *Understanding Baby Loss: The Sociology of Life, Death and Postmortem***.** Manchester University Press.

Rosseinsky, K. (Wednesday 9 October 2024). Introducing baby loss certificates shows the conversation around miscarriage is slowly changing, *Independent*.

Sandwick, T., Fine, M., Greene, A. C., Stoudt, B. G., Torre, M. E., & Patel, L. (2018). Promise and provocation: Humble reflections on critical participatory action research for social policy. *Urban Education, 53*(4), 473-502.

Seers, H., Mughal, R. & Chatterjee, H. (October 2022). How the natural environment can support children and young people. *Natural England Evidence Information Note EIN067* National Academy for Social Prescribing, UK.

Skemer, D. C. (2006). *Binding Words: Textual Amulets in the Middle Ages*. Pennsylvania State University Press.

Simpson, B. (2022). Here be Dragons (on Becket Lawn). Sustainability blog Here Be Dragons (on Becket Lawn) | Sustainability. Canterbury Christ Church University.

Smith-Carrier, T. & Van Tuyl, R. (2024). The Merits and Pitfalls of Participatory Action Research: Navigating Tokenism and Inclusion with Lived Experience Members. *International Review of Public Policy*, 6(1) 46-62. https://doi.org/10.4000/11whj

Sørensen, M. L. S. (2000). *Gender archaeology*. Polity Press.

Southern, R. W. (1980). *St Anselm: A portrait in a Landscape*. Cambridge University Press.

Storm Hindley, K. (2023). *Textual Magic: Charms and written amulets in medieval England*. Chicago University Press.

Taffere, G., Temesgen, H., Haileselassie, B., Zerihun, Z., Wenning, B., Dikomitis, L., & Mulugeta, A. (2025). Linking research to end users through community engagement: an umbrella review. *Journal of Public Health (Berl.)* 33, 1983-1997. https://doi.org/10.1007/s10389-023-02167-x

Thwaite, A. (2019). A history of amulets in ten objects. *Science Museum Group Journal* 11(1). https://dx.doi.org/10.15180/191103

Vujakovic, P. (2022). *Manifesto for Green Heritage: Linking the living world and cultural heritage*, Canterbury Christ Church University. https://www.canterbury.ac.uk/asset-library/about-us/sustainability/Green-Heritage-Manifesto.pdf

Vujakovic, P. & D. Heath (2024). Entanglements: Story telling for earthly survival. In N. Kemp & A. Bainbridge (Eds.), *Good Education in a Fragile World: The Value of a Collaborative and Contextualised Approach to Sustainability in Higher Education* (pp. 110-124). Routledge.

Vujakovic, P. (forthcoming, 2026). Foreword: 'What is Green Heritage? In D. Heath & V. Blud (Eds.), *Encounters with Medieval Animals: from Cultural History to Green Heritage*. University of Wales Press.

Walker-Meikle, K. (2023). *De sexaginta animalibus*: A Latin Translation of an Arabic Manāfi' al-hayawān Text on the Pharmaceutical Properties of Animals. In P. Bouras-Vallianatos, D. Stathakopoulos (Eds.), *Drugs in the Medieval Mediterranean* (pp. 104-129) Cambridge University Press.

Ward, A., Cherry, J., Gere, C. & Cartlidge, B. (1981). *The Ring: from Antiquity to the Twentieth Century*. Thames & Hudson.

World Health Organization (2013). WHO traditional medicine strategy: 2014- 2023. World Health Organization, Geneva. https://iris.who.int/handle/10665/92455

World Health Organisation (2024). Draft global traditional medicine strategy (2025–2034) *Report by the Director-General* EB156/1.

Wentworth, J., Trans. and Ed. (1848). Session XIII, chapter 3. *The canons and decrees of the sacred and ecumenical Council of Trent* (77-78). Dolman.

Wood, C. (2024), Recognising Amulets. In C. Duffin & A. Vieira (Eds.), *ICA Conference International Conference on Amulets 15th – 16th November 2024 Abstracts*. Museu de Arqueologia D. Diogo de Sousa https://icamulets.wixsite.com/amulets/

Worthington, N. & Heath, D. (forthcoming, 2026). *Medieval Animal Heritage Project Evaluation Interviews and Data Collection Report*. Sidney De Haan Research Centre for Arts and Health, Canterbury Christ Church University.

Websites

Allen. L. (2025). Writing the Garden Substack https://lucyallengoss.substack.com

Oxford University Press. (n.d.). Amulet, n., 3. In Oxford English dictionary from https://doi.org/10.1093/OED/9275419158

Oxford University Press. (n.d.). Talisman, n.², 1. In Oxford English dictionary. https://doi.org/10.1093/OED/2284391167

Rochester Cathedral (2024). Draco Roffensis. https://rochestercathedral.org/dragon

Manuscripts

Anon., *Bestiary*. London, British Library, Royal MS 12 F XIII, c. 1223.

Anon., *Sheet of Incantations*, Canterbury Cathedral Library and Archives, CCA-DCc-Add. Ms/23, c. 1200-1300.

Llul (anglicized as Lully), R., (c.1232-1316). *Liber Maioris Voluminis Secretorum*, et al., Canterbury Cathedral Library and Archives, CCA-DCc/LitMs/B/8 dated 1465

NOAH, MAGIC, AND SOLID EARTH: AN AMULET FOR TREASURE HUNTING IN *SEFER RAZIEL HA-MALAKH*

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Summary
Sefer Raziel ha-Malakh is both one of the best known and most neglected magic books in history. The text is widely known and referred to. Yet, it has not been sufficiently studied. The entire text of the book remains enigmatic for many readers. There are only two translations into European languages. Steve Savedow translated the book into English, but his version of the text has been widely criticized and can hardly be called reliable. Eugene Kuzmin translated the *Sefer Raziel ha-Malakh* into Russian. The problem lies within the specific features of the book. It is voluminous for an old grimoire, its language and style vary significantly, and it covers quite a wide range of different topics, such as magical, scientific and theological. There are many codes in the text. The undeciphered sections are not accessible to the reader.
The Sefer Raziel ha-Malakh is an anthology with an intricate history. It was first published in Amsterdam in 1701. In the introduction, the editor relates the long and difficult story about his search for a reliable version and the conflict within the local Jewish community concerning this book. The history of the manuscripts contained in the anthology stretches back to the XIVth century which means that all the texts were written before that. The language, style and contents show decisive differences between various parts, which originated in diverse epochs and cultures. Biblical commentaries and associations appear adjacent to the sections of the texts concerning pagan Greek and Roman gods. The anthology may be regarded as forming a bridge between different cultures and epochs prior to the Renaissance. Research on the anthology may also document the formation of Renaissance magic.
The text contains a rite for treasure hunting on p. 6v. It has never been studied. Let us briefly describe it. A magician should prepare a gold plate inscribed with sacred names. He then ties this plate to the neck of white dove using a specific cord. The dove reveals the precise location where the treasure can be found. The next page presents the amulet. The text on the amulet is not clear and difficult to decipher. Yet, it is possible to show some parallels and associations, which may show a certain rationality and logic behind the rite and the associated amulet.

Keywords: Jewish Magic, Practical Kabbalah, Treasure Hunting, Magical Bird, Secret Codes.

Some General Considerations

Amulets often reflect different facets of human culture, embodying a particular set of assumptions. Such assumptions can be both highly sophisticated and flexible. They can also be a part of an oral tradition that has never been written down. Thus, the interpretation of an amulet can reveal the hidden riches of the unspoken aspects of human culture. Yet, the code of the amulet is often enigmatic. Sometimes it cannot be entirely deciphered. Each precise amulet can have a long history of formation and of reinterpretation. This article is an attempt to suggest the probable interpretation of inscriptions on an image of an amulet from a celebrated magical book. The meticulous examination of abbreviations, words, and phrases contained therein sheds light on a distinct system of reasoning. The amulet itself represents a long and highly intellectual religious and occult tradition.

The Source

Sefer Raziel ha-Malakh (The Book of the Angel Raziel), published in Amsterdam in 1701, is a celebrated magical anthology, written in Hebrew (with some Aramaic interpolations) (see Figure 1).
Until relatively recently, books were sometimes known by several different titles, and the same title has been given to disparate books. The contents can also vary significantly[1]. In the case of Sefer Raziel, there are two quite distinct traditions. One of them probably stems from the court of Alfonso X the Wise (1252-1282), king of Castile and León. Yet, the book with the same title is widely referred to in Latin works from the XIIth century. The book Liber *Razielis Archangeli* was allegedly translated from Hebrew into both Castilian and Latin. Editions of the text in European languages, including English followed (manuscripts Sloane 3826, 3846).
Another quite distinct and independent tradition of *Sefer Raziel* is a Hebrew anthology that has very little in

[1] A known solution was proposed by Peter Schäfer (1983), (1984), (1986), (1989). He developed his theory of mikroformen and makroformen, i.e., small stable units of text and their widespread combinations, to describe this phenomenon. A similar method of moderating the interrelatedness of different variations without searching for an Urtext was systematically justified in studies of European Medieval texts, around the same time, by Bernard Cerquiglini (1999).



Figure 1. The title page of the Sefer Raziel ha-Malakh (Amsterdam, 1701)

common with the *Liber Razielis Archangeli*. This *Sefer Raziel ha-Malakh* was published in Amsterdam in 1701, but the manuscript tradition goes back to at least as far as the end of XIVth century (on the basis of manuscript dating). MS Oxford, Bodleian Library 1345 (Oppenheim 588) bears the date 1384, making it the earliest of the known manuscripts. The publisher of the first printed edition insists in the introduction that he is in possession of the names of previous owners of the manuscript, such as the famous figures Kalonymus he-Hesid of Speyer (1120--1175), Judah ben Shmuel of Regensburg he-Hasid (1150--1217), and Eleazar of Worms ha-Rokeah (c. 1176 --1238). Indeed, a section of the book ("Raziel ha-Gadol") corresponds strongly with part of the *Sodey Razaya* by Eleazar of Worms. Nevertheless, the precise date of compilation is unknown and the history of the text remains the subject of discussion; some sections may have very early origins.

There is a long and complicated history of scholarship on the structure of this variegated anthology. A brief and superficial explanation of the anthology's structure is provided by the editor of the first printed edition. Bill Rebiger published a succinct and lucid article that presents and explains the schema (Rebiger 2005).

The Position of the Treasure Hunting Formula in the Anthology

A short formula for treasure hunting appears on page 6b of *Sefer Raziel ha-Malakh* (1701), with related drawings appearing on page 7a. There is no obvious connection between the formula and the text that comes before and after it. The short formula is sandwiched between clearly articulated treatises with their own themes. In fact, the majority of short formulas in the book stand alone and cannot be definitively identified as belonging to the narrative of any treatise within the anthology. It follows that their connection with the longer narrative is frequently unclear.

The treasure hunting formula is one such discrete entity and its connection to the other texts in the anthology warrants discussion. According to the editor's introduction to the anthology the formula and the drawing beneath it (see below) belong to Sefer ha-Malbush (The Book of the Garment). This attribution is commonly accepted. It appears, for instance, in the aforementioned article by Bill Rebiger (Rebiger 2005). *Sefer ha-Malbush* in *Sefer Raziel ha-Malakh* (1601) includes other formulas and, hence, the instructions for treasure hunting do not appear out of place in the general context.

The title and the contents of *Sefer ha-Malbush* are probably based on biblical passages. Isiah 59:17: "He put on righteousness as his breastplate, and the helmet of salvation on his head; he put on the garments of vengeance and wrapped himself in zeal as in a cloak." Isaiah 61:10: "I delight greatly in the Lord; my soul rejoices in my God. For he has clothed me with garments of salvation and arrayed me in a robe of his righteousness, as a bridegroom adorns his head like a priest, and as a bride adorns herself with her jewels" (New International Version).[2]

The main text of Sefer ha-Malbush within Sefer Raziel ha-Malakh (1701) is an astromagical treatise dealing with astrological periods and the names of angels associated with those periods; as noted above, it also contains many practical formulas.

The Formula and its Meaning

Here is my translation of the formula for treasure hunting from *Sefer Raziel ha-Malakh*:

> If you want to stand on treasure, to raise silver and gold from that treasure, hidden in the earth. Take a plate from seven times purified gold (Psalm 12:7) and write on that <plate> 21 letters from the Holy and Pure Name. Connect a blue rope to it. Take a white dove and tie it <plate> to its <the dove's> neck with the blue rope. Send it <dove> into the air. Search beneath its legs in the place it has come down. It is the place where it is hidden. If it is within a city and it <the dove> stays on the roof, go around the place seven times. During the daytime,

[2] Quotations from the Bible are taken from the New International Version (2011), with some exceptions. That is a translation of the Bible into contemporary English, first published in 1978. Republished with a minor revision in 1984 and a major revision in 2011.

> say the name of the sun in the period. During the night, say the name of the moon in the period.

Both astromagical and biblical foundations underly this rite. Let us start with the astromagical elements. It is typical for instructions in medieval magic to associate a magical rite with a suitable astrological period. That includes the season, the day of the week, and the time of day for certain magical operations. In this particular case, during the daytime one should apply to the spiritual entities of the sun, and at night to the spiritual entities of the moon. These entities differ in various seasons. The anthology *Sefer Raziel ha-Malakh*, like many other magical texts (including *Sefer ha-Malbush*), names many astrological periods, although the formula under discussion does not specify any. These complicated recommendations could be systematized by anybody wishing to work with the amulet.

The dove, in this context and in the Jewish book in general, evokes biblical associations with the story of the Noah and the flood. By way of a brief reminder of this passage, let us recall that on a certain day, when the waters continued to recede:

> Noah opened a window... and sent out the raven, and it kept flying back and forth until the water had dried up from the earth. Then he sent out a dove to see if the water had receded from the surface of the ground. But the dove could find nowhere to perch because there was water over all surface of the earth; so, it returned to Noah in the ark. He reached out his hand and took the dove and brought it back to himself in the ark. He waited seven more days and again sent out the dove from the ark. When the dove returned to him in the evening, there in its beak was a freshly plucked olive leaf! Then Noah knew that the water receded from the earth. [3]

Here Noah, in the role of a treasure hunter, uses the dove to obtain reliable information concerning something that connects to the earth. Both the findings have a clear connection with the earth, with solid ground. In the end, the dove delivers something material that exceeds the non-material information.

The formula's instruction to "go around the place seven times" alludes to the biblical story of the fall of Jericho from the Book of Joshua (6:2-4):

> Then the Lord said to Joshua, See, I have delivered Jericho into your hands, along with its king and its fighting men. March around the city once with all the armed men. Do this for six days. Have seven priests carry trumpets of rams' horns in front of the ark. On the seventh day, march around the city seven times, with the priests blowing the trumpets.

Indeed, the spoils of war taken in Jericho can also be associated with finding treasure.

Thus, this brief formula has a clear theoretical background for the actual practical and unexplained prescriptions.

The Upper Part of the Drawing

The rite mentions an amulet that should be tied to a dove's neck. The amulet includes 21 letters of God's Name. There is a drawing on the next page (see figure 2). It is not even apparent whether the entire drawing belongs to the formula. The inscriptions, however, suggest that it probably does.

At the top of the page, in bold text, is the following: "I have discovered that the Holy Name is everywhere, etc., That is the *Shem Ha-Meforash*" (translation mine). The phrase probably alludes to Exodus 29:24: "Whenever I cause my name to be honored, I will come to you and bless you." *Shem ha-Meforash* can be translated as "the explicit name." This is a name of God that possesses special power if one pronounces it correctly. *Sefer Raziel ha-Malakh* does include special treatises on this, but they appear in the final section of the anthology, while the formula for treasure hunting appears near the beginning. The formula does not appear to belong to the treatise/ treatises on the *Shem Ha-Meforash*. Nonetheless, the title on p. 7a may refer to the 21 letters of the Name of

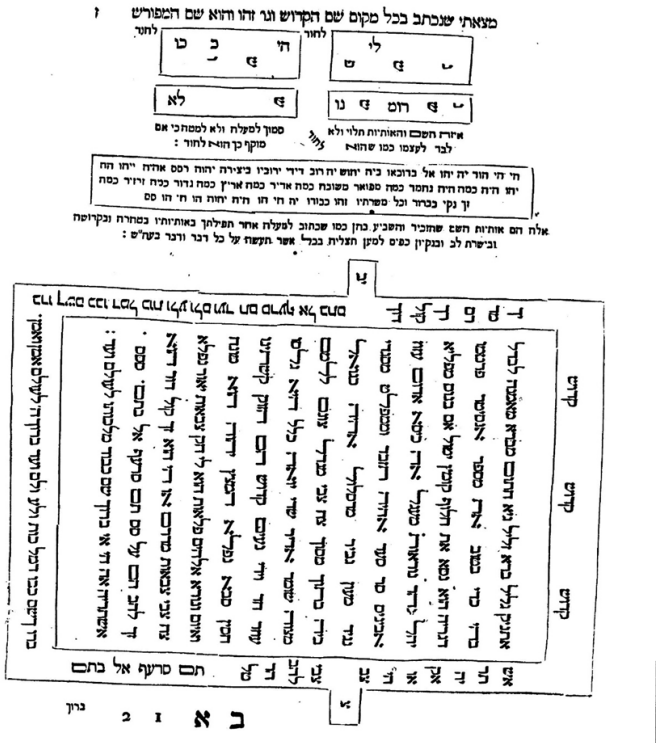

Figure 2. Drawing from the Sefer Raziel ha-Malakh (Amsterdam, 1701), p. 7a. Allegedly an amulet for treasure hunting

[3] Genesis 8:6-11.

[4] There are two sections about the Shem ha-Meforash with 72 letters and one section about Shem ha-Meforash with 42 letters

God. This is not a common number; the *Shem ha-Meforash* is more frequently said to consist of 4, 12, 22, 42 or 72 letters.

There are five quadrilaterals beneath the title. Four of them are arranged two against two: one pair on the right side of the page and another pair on the left. The four quadrilaterals contain letters that do not form any clear words. Underneath them are two lines of text. Below that, is a wider quadrilateral, also followed by text.

The word "le-khor" (**לחור**), i.e., "for a hole", appears between the two pairs of quadrilaterals, once aligned with the top and once with the bottom. It also appears to the left of the left-hand pair, at the top. In some cases, a hole might also be made under the two quadrilaterals on the left side. This would depend on a particular practical realization, as the text is vague: "Near above and not near below, for if surrounded in this way, it is for a hole." This text serves as evidence that the entire page forms one amulet, because that is the only possible explanation for "near above". The inscription on the right side is: "What the Name and the letters! It is hanging and not alone itself according to that it (or he) is".

Below this on the page is a wider quadrilateral that contains the divine name. This consists both of proper holy names and attributes of God, such as mighty, praised, etc. However, neither the letters nor the words number 21.

The inscription beneath the wide quadrilateral is: "These are the letters of the Name to mention and to conjure, as it is said above, for the work after your prayer with the letters in purity, in holiness, with the righteous heart and clean hands, so that you will succeed in everything you will do with everything in this God's service." The phrase "as it is said above" refers to an explanation preceding the picture, probably the treasure hunting formula.

The inscriptions in the four quadrilaterals at the top are obscure and difficult to decipher. The letters do not form any words or passages. They are probably abbreviations, or perhaps a numerical code. Hebrew characters have numerical value and this feature plays an important role in Kabbalistic speculations.

Although there is not enough evidence on the basis of which to decipher the meaning of the contents with any certainty, let us venture a guess as to their meaning. The three letters that lie sideways in the upper quadrilateral on the right side, "nun", "shin", "pe", produce an abbreviation known from the Babylonian Talmud (Megilah 25a), where it stands for Am**n**on, Abs**h**alom (names) and ***P**ilegesh* (the term for concubine). Although this code is widely known, it does not fit the context.

The three letters can also form the word "soul", "nun"-"pe"-"shin".

It is more likely that two of the letters, i.e., "nun" and "shin" refer to the Biblical context of the formula. The first one is the first letter of the name "Noah," and the second one is in the name of his righteous son, "Shem" or, alternatively, "shlosha", i.e., three (Noah had three sons). Such a reference to the story of Noah, may well be related to the formula for treasure hunting.

Neither of the abovementioned theories involve all the letters that appear in the quadrilaterals. The most likely explanation is that the characters and the inscription above them ("li" – that is "me", "to me", "for me") allude to certain biblical sayings. Such abbreviations are quite typical for amulets. It might be, for instance: "Grant me my life" from Esther 7:3 (**תנתן-לי נפשי בשאלתי**).One can interpret that as something like: "Give me the thing that satisfies my soul as an answer to my petition".

The inscription that appears as a title at the head of the page provides an additional clue: "I have discovered that the Holy Name is everywhere, etc., That is the Shem Ha-Meforash." Perhaps the inscription reads: "Nikhtav (**נ**)li (**לי**)shem (**ש**)po (**נכתב לי שם פה**).That is, "The Name is written for me here."

This last interpretation can be developed in the quadrilateral on the left-hand side (**הי ש ב ו כו**): Hey-Yod Shem Bo Koakh" (**הי שם בו כוח**). That is, "Hei-Yod is the Name that possesses strength." "Hey-Yod" can be both the name itself and the abbreviation of the Tetragrammaton. Although the meaning fits the context, there are some anomalies with this interpretation. "In" (**בו**) appears as two separate characters, which looks strange here. "Strength" or "Power" is better written as "**כח**", rather than "**כוח**".

Turning now to the lower quadrilateral on the right-hand side. Although, the simplest, most widely known and commonly accepted interpretation of the abbreviation "Resh-Vav-Mem" (**רומ**) is "Rabbi and teacher" (**מורה ורב**), it does not clarify much in this context.

The letter "Shin" (**ש**) and the combination of two letters "Nun-Vav" (**נו**)can be understood as "Shem" (Noah's righteous son), "shlosha" ("three", as in Noah sons) and Noah (**נו**). Similar ideas have already been presented above. Yet, in "Nun-Vav", the last letter looks superficial; it does not occur in the normative spelling of the name. Also, the title "rabbi" seems inappropriate for these Biblical heroes.

The character "Shin" can be also interpreted as the word "Name" ("Shem"), i.e., as a reference to the name of God. "Shin" with "Nun-Vav" can be "Shem Nora" (**שם נורא**), i.e., "Awesome Name".

The abbreviation "Resh-Vav-Mem" (**רומ**) most likely refers to biblical sayings. The phrase from Exodus 1:9 fits the context perfectly: "… more and mightier than we" (**רב ועצום ממנו**).[5]

The final quadrilateral contains only the letter "shin" on the inner right-hand side, probably meaning the "Name", the "Name of God" **<שם>** in other cases, and "lo" **<לא>**, that is "no" on the left side.

[5] Version of the King James Bible (also King James Version and Authorized), i.e. an English translation of the Bible, which was commissioned in 1604 and published in 1611, by sponsorship of King James I (1566 -- 1625). It is the best for this particular case.

The number of letters is also significant; the formula for treasure hunting specifies that the Holy Name should consist of 21 characters.

The two quadrilaterals on the right-hand side both contain the letters "nun-nun" (נן) and "shin"-"shin" (שש), lying on their sides. This could be explained as "Nun shesh", i.e., the name of the letter "nun" and the number 6. The numerical value of the letter "nun" is 50. The last inscription in the lower right-hand quadrilateral features two letters together "nun-vav" (נו). Their numerical value is also 56. The first inscription in the upper left-hand quadrilateral is "he-yod" (הי). These two letters are also part of the Tetragrammaton. The remaining letters are "vav" and additional "he" (וה), the numerical values of which are 6 and 5.

Also, the entire text in the two quadrilaterals on the left-hand side can refer to the Tetragrammaton. In the upper corner are the two letters "he" (ה) and "yod" (י). The Tetragrammaton (יהוה) starts with "yod-he" (יה). "He" is also the final character in the Tetragrammaton. The upper and lower quadrilaterals both contain a sideways letter "shin" (ש) that, read diagonally, form the word "shesh", i.e., six. That is the numerical value of the letter "vav" (ו), the third letter in the Tetragrammaton. To the left of them are "bet" (ב) and "vav" (ו). The role of these two letters can be interpreted in many ways. Perhaps the simplest is to read it as a word "bo" (בו), i.e., "in that". Finally, on the upper left-hand side we see "kaf-vav" (כו), which has a numerical value of 26, the same as the Tetragrammaton. It has already been noted that "lamed-alef" (לא) in the corner on the lower left-hand side means "no".

The four upper quadrilaterals contain 23 letters. Yet, two of these constitute the word "no", which can easily be excluded from the name. Perhaps that is the Name, mentioned in the formula.

The Lower Part of the Drawing

There is a large figure on the lower part of the page. It lies on its side as is evident from the direction of the text within it. It resembles the plate mentioned in the text. At least, it clearly appears in the form of plate. It has two flaps on its sides (above and below on the picture) that could be used to tie the rope.

The figure appears to stand alone. Although there is no title or description that disconnects it from what appears above it on the page, it is not clear whether they constitute a single body. For one thing, it cannot be the rear side of the amulet; the holes, which appear on the upper section but not the lower one, make this impossible. The page cannot be folded so that the hole positions are opposite each other.

It cannot be stated for certain whether this figure is the plate for treasure hunting. Arguments against would be:

1. The text lies on its side and thus, visually, does not appear to be part of the drawing above.
2. The figure is very big, so the characters on the plate would have to be very small to fit on a plate that a dove could fly with. Technically, this would be very difficult to accomplish.
3. There is no sign for a hole or anything that points to practical usage of the figure, as in the case of the quadrilaterals above.

That said, there is no evidence of another use for this figure, so it must somehow be connected to the amulet for treasure hunting.

The inscription in the inner part of the figure is a mixture of divine names, divine attributes and phrases related to different verses of the Bible. Neither the names nor the characters number 21.

The texts running around its edges are briefer and clearer. The word "קדוש" that is "holy", is repeated three times at the top of the figure (on the right-hand side of the page). This is a quotation from Isaiah 6:3. The text on the bottom (page left) reads: "Blessed be the name of His glorious kingdom for ever and ever. Blessed be the Lord forever! Amen and Amen". The phrase "Blessed be the name of His glorious kingdom for ever and ever" is the second line of the Shema, the most important element of Jewish liturgy and credo of Judaism. Its twice-daily recitation is a religious commandment (*mitzva*). This particular saying derives from the temple liturgy and is a very common concluding phrase on Jewish amulets. The phrase "Blessed be the Lord forever! Amen and Amen" appears in the New International Version of the Bible as "Praise be to the Lord forever! Amen and Amen" (Psalm 89:51).

However, the spaces between the words in the phrase "Blessed be the name of His glorious kingdom for ever and ever" are incorrect. The spaces break the letters into eight meaningless words, each consisting of three letters. This is probably intended to render sacred names. The practice of extraction of such "names" from the Bible, particularly from the Psalms was very typical of Jewish magic.[6] Thus, the spaces can mark the divisions between various names from the biblical sayings.

The phrase is repeated on the left edge of the figure, at the bottom (top left on the page): "Blessed be the name of His glorious kingdom for ever and ever". It is followed by a code (תם סרעף אל בתם), which is repeated on the opposite edge of the figure (bottom left on the page). The text has no explicit meaning and can hence be assumed to be a code. We can only guess as to its meaning, yet the phrase "Holy, holy, holy" can serve as a clue. Hebrew characters also represent numbers and the interplay of words and their numerical meanings is very important in practical Kabbalah. The sum of the numbers in the word "Holy" (קדוש) is 410, and the same is true of the word "סרעף". The meaning of the word "tam" (תם)

[6] That is a very widespread practice that is addressed in a large body of research literature. For a brief, clear and accessible introduction, see: Swart 2014, pp. 184-244.

is an "honest, simple person". However, in Kabbalistic texts it can appear as an abbreviation, a code, which means "Abyss" (**תהום**)[7] Therefore, the phrase **תם אל**" "**בתם** can refer to "Deep to deep…" (**תהום אל תהום**), Psalm 42:7. The adposition "to" or "unto" (**אל**) can be also interpreted as the word "God". So, the passage can also read: "Abyss (Holy) God in Abyss".

The upper left and right edges of the figure feature words and combinations of letters with no evident meaning. They appear to be abbreviations for different passages from the Bible. Their full explication would not be helpful for the present argument. Suffice it to say that no section nor the phrase on the drawing consists of 21 letters. Thus, the Name of God mentioned in the formula cannot easily be found here.

Quantity of the letters in God's name

Although in section 5 there were some numerological speculations, we should discuss the theme in its relation to the Name of God mentioned in the formula.

The formula talks about 21 letters from the Name of God appearing on the plate. The text itself does not list them. One might surmise that the letters should appear on the drawings.

As noted above, while the four upper quadrilaterals include 23 letters, two of them form the word "no" making it probable that they do contain the Name. But let us also examine other options to show the full picture.

The text in the wider quadrilateral (beneath the first two pairs of quadrilaterals) definitely gives God's Name, but it consists of 174 letters. We may suggest that the text does not talk about general quantity. Probably it counts only specific letters and any specific letter may appear more than once on the plate. The Hebrew alphabet consists of 22 characters. Thus, the name should exclude only one letter of the Hebrew alphabet. But three letters of the Hebrew alphabet are missing; they are gimel (3), tet (9) and ayn (70), ruling out this option.

The wider quadrilateral below contains many names and codes and so includes many more words and letters. It is clear at a glance that the Holy Name/Names within it include the entire Hebrew alphabet.

In total, the four top quadrilaterals include 23 letters (some of which are repeated). Perhaps the two letters in the lower left corner do not belong to the name. Together, these two letters form the word for "no" ("lo"). Also, this "no" appears to be excluded from the inner part of the amulet. The supposed rope draws a line between the main part of the amulet and this "no.". Thus, this "no" is probably not the part of the name.

There is also another possibility. This preoccupation with 21 letters may be misguided. Irina Wandrey has published a *Sefer ha-Malbush* from the manuscripts (Wandrey 2004). Her texts (the variations are drastic) are quite different from the section of the anthology in *Sefer Raziel ha-Malakh* (1701). None of the versions published by Wandrey include the ritual for treasure hunting. They do, however, coincide with the text from the *Sefer Raziel ha-Malakh* in at least one respect: they also contain a prescription for making an inscribed golden plate. In the texts published by Wandrey, the goal of the rite (using the plate) is to attract magical power. The Holy Names are different. There is no similarity to the inscriptions on the amulet/amulets from Sefer Raziel ha-Malakh. But some of the texts published by Wandrey prescribe 21 days of fasting (Group of *Torat ha-Malbush*, manuscripts: Sasoon 290 (today Montana, E. Serge Amar 145); Moskau, Günzburg 248; Escorial G-3-14). Thus, the quantity of the days could become the quantity of the letters in the name of God at some point in the development of the text.

A parallel

The study of parallels in magical rites can be very useful in many respects. It can trace multi-cultural contacts, show some aspects of the development of human knowledge, and shed light on human psychology. Let us show one parallel to the magical formula under discussion.

The celebrated encyclopedia of practical Kabbalah, the *Shorshey ha-Shemot* (Book of the Roots of the Names) by Moses ben Mordecai Zacuto (c. 1625 - 1697) contains a similar formula, or one with a similar logic behind it (Zacuto 2019, p. 537). A treasure hunter should feed a white cock with wheat in honey for eight days in a dark place. Afterwards, he should write certain sacred names (**תאחש שאפנבנ שרלת אטלס דמשק**) on a clean plate and tie the plate to the cock's neck. Moses Zacuto explains the magical names. They are the first letters of the words in different sayings. The incantation also appeals to an additional demon (**לאד בן אשמדאי**). The treasure hunter should say the incantation until the cock shows the way to the treasure.

On a practical level, the principle is the same. A bird with a magical plate on its neck can show the location of hidden treasures. Nevertheless, the amulets and the religious ideas behind the rituals are quite different.

Conclusion

This brief study of a magical formula and an amulet reveal the rich and sophisticated intellectual world behind them, a real treasure of human consciousness. This relatively simple formula and amulet enfold many elements of versatile intellectual life. It was shown that many different ideas and associations can be seen here, i.e., understanding of the Bible and its practical applications, old magical assumptions, codes and numerical manipulations. The construction of amulets can require very sophisticated skills and deep knowledge in a specific area. There is also a certain methodology or even certain science, underlying the art of magic.

[7] For instance, see Zacuto 2010, p. 530.

References

Abate, E. (2019). Razi'el a Roma: Le Copie di Egidio da Viterbo (1469-1532). Emma Abate (Ed.), *L'Eredità di Salomone, le Magia Ebraica in Italia e nel* Mideterraneo (pp. 119-142), Giuntina.

Åkerman, S. (1998). Queen Christiana's Latin Sefer-ha-Raziel Manuscript. Coudert, A.P. Hutton, S. Popkin, R.H. and Weiner, G.M. (Eds.), *Judaeo-Christian Intellectual Culture in the Seventeenth Century. A Celebration of the Library Narcissus Marsh (1638-1713)* (pp. 13-25), Kluwer Academic Publishers.

Alfonso X el Sabio. (1992). *Astromagia (ms. Reg. lat. 1283a)*. Alfonso d'Agostino (Ed.), Liguori.

Avilés, A.G. (1997). Alfonso X y el Liber Razielis: imágenes de la magia astral judíaen el scriptorium alfonsi. *Bulletin of Hispanic Studies, 74 (1)*, 21-39.

Cerquiglini, B. (1999). *In Praise of the Variant: A Critical History of Philology*, JHU Press. Original edition is: Cerquiglini, B. (1989). *Éloge de la variante: Histoire critique de la philologie*. H. Champion.

Eleazar of Worms. (2004). *Sodey Razaya*, Unknown Publisher. (Hebrew).

Idel, M. (2024). Sefer Raz'iel ha-Mal'akh – A Conduit of Medieval Ashkenazi Culture. *Aschkenas*, *34 (2)*, 225-250.

Idel, M. (2019). Sefer Raz'iel ha-Mal'akh. New Inquiries. Emma Abate (Ed.), *L'Eredità di Salomone, le Magia Ebraica in Italia e nel* Mideterraneo (pp. 143-168), Giuntina.

Karr, D., and Skinner S. (Eds.). (2010). *Sepher Raziel also known as Liber Salomonis, a 1564 English Grimoire from Sloane MS 3826,* Golden Hoard Press.

Kuzmin, E. (Transl.) (2020-2021). *The Book of the Angel Raziel*, 2 vols., Academy of Culture's Research. (Russian).

Leicht, R. (2006). *Astrologumena Judaica: Untersuchungen zur Geschichte der astrologischen Literatur der Juden,* Mohr Siebeck.

Peterson, J.H. (1999, 2006). *Sepher Raziel (Sl. 3846). Book of the Angel Raziel.* www.esotericarchives.com/raziel/raziel.htm

Rebiger, B. (2005). Zur Redaktionsgeschichte des Sefer Razi'el ha-Malakh. *Frankfurter Judaistische Beiträge, 32*, 1-22.

Rebiger, B., and Schäfer, P. (Eds). (2009). *Sefer ha-Razim I und II. Das Buch der Geheinisse I und II*, Mohr Siebeck.

Savedow, S. (Transl.) (2000). *The Book of the Angel Rezial,* Samuel Weiser.

Schäfer, P. (1989). Once again the Status Questionis of Research in Rabbinic Literature: An Answer to Chaim Milikowsky. *Journal of Jewish Studies, 40(1)*, 89-94.

Schäfer, P. (1986). Research into Rabbinic Literature: An Attempt to Define the Status Quaestionis. *Journal of Jewish Studies, 37(2),* 139-152.

Schäfer, P. (1984). Review: Merkavah Mysticism and Rabbinic Judaism. *Journal of the American Oriental Society, 104(3),* 537-541.

Schäfer, P. (1983). Tradition and Redaction in Hekhalot Literature. *The Journal for the Study of Judaism in the Persian, Hellenistic and Roman Period, 14(2)*, 172-181. Repr. In: his (1988) *Hekhalot-Studien*, J.C.B.Mohr, 8-16.

Secret, F. (1969). Sur quelques traductions du Sefer Razi'el. *Revue des études juives, 128,* 223 -- 245 (1969).

Sefer Raziel ha-Malakh (1701), Abraham Mendes Coutinho. (Heb.)

Swart, J.G. (2014). *The Book of Seals and Amulets*, The Sangreal Sodality Press.

Wandrey, I. (2004). *Das Buch des Gewandes und Das Buch des Aufrechten*, Mohr Siebeck.

Zacuto, Moses (2010) *Shorshey ha-Shemot*, Nezer Shraga. (Heb.)

ENGRAVED GEMS AS AMULETS IN THE MODERN AGE: READING ECKHEL'S CHOIX DE PIERRES GRAVÉES AND BOSSI'S SPIEGAZIONE

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Summary
The XVIIIth century and the beginning of the XIXth century represent a turning point in the research on glyptics. Gems, previously appreciated for their scientific and antiquarian interest, become monuments of art history; the approach to gems as amulets also changed. Nevertheless the transition was neither immediate nor peacefully shared.
In the first part of this article, Gabriella Tassinari presents the figure of Joseph Hilarius Eckhel (1737 - 1798), the father of numismatics as a science, director of the *Schatzkammer* and the Imperial *Münzkabinett* in Vienna. Eckhel published a selection of the gems from the Habsburg Treasury in his work *Choix des pierres gravées…*(Vienna 1788). Eckhel participated in the scientific and enlightened spirit of his era; he did not understand the magical value of the gems and banished talismans and abraxas from his work. Eckhel published in the *Choix* a dark green chrome chalcedony cameo with an intaglio on the reverse, which belongs to the 'Harpocrates gems'. The scholar dedicated a long, powerful comment concerning the amuletic gem: Harpocrates is one of the most accredited deities under the reign of superstition, with ridiculous symbols and surrounded by enigmatic inscriptions.
In the second part, Alessandra Magni presents some amulet-gems from the personal collection of the civil servant and scholar Luigi Bossi Visconti (1758 - 1835); the collection was later dispersed. In the *Spiegazione di una raccolta di gemme* (1795), Luigi Bossi presents the *status quaestionis* on glyptics, paying attention to the scientific approach to the lithology and to antiquarian comparisons, and classifies his specimens. Bossi is fascinated by the magical and esoteric aspects of gems, by the fantastic and the monstrous subjects; he is critical of charlatans and magicians, but is sympathetic towards their users; he tries to decipher the inscriptions on the magical gems without success, but he records these texts.

Keywords: Luigi Bossi; Joseph Hilarius Eckhel; engraved gems; magical gems; Harpocrates.

In the XVIIIth century and in the first decades of the XIXth century, a moment of great fortune for glyptics, the study of ancient gems and their interpretation changed. Scholars moved from being interested in gem iconographies and their meanings, including a moral judgment about them, to paying attention to technical aspects of their manufacture and to the value of gems as witnesses to the history of art.
This change of perspective was neither immediate nor peacefully shared and a certain diversity of views can be seen in the reading of contemporary sources.
Here we illustrate how the topic of the gems as amulets is treated by the works of two scholars who offer different opinions: the Austrian and world-famous Joseph Hilarius Eckhel (Enzersfeld 1737 - Vienna 1798), the father of scientific numismatics, and Luigi Bossi (Milan 1758 - 1835), a civil servant, politician and scholar who published his own collection in light of two hundred years of glyptic studies.

Gabriella Tassinari, *The opinion of a Master: Joseph Hilarius Eckhel*

The abbott Joseph Hilarius Eckhel, a secularized Jesuit educated by the Jesuits, is considered the founder of numismatics as a science, thanks to the importance of his new method (Ars Critica Numaria, 2022). Professor of numismatics and antiquities at the University of Vienna, deeply esteemed by the most famous scholars, he was appointed director of the *Schatzkammer* and the Imperial *Münzkabinett* in Vienna from 1774 to 1798. Eckhel brought significant progress in glyptic studies not only because coins and gems presented similar problems, but also because he participated in the extraordinary popularity and important development of studies that glyptic enjoyed in the period in which he lived (Tassinari, 2022).
His first merit lies in his publication of the collection of the Habsburgs of Vienna, one of the largest in Europe, with the *Choix des pierres gravées du Cabinet Impérial des antiques…* (Eckhel, 1788) which includes 10 pages of *avant-propos*, 77 pages of text and 40 plates (Figure 1).

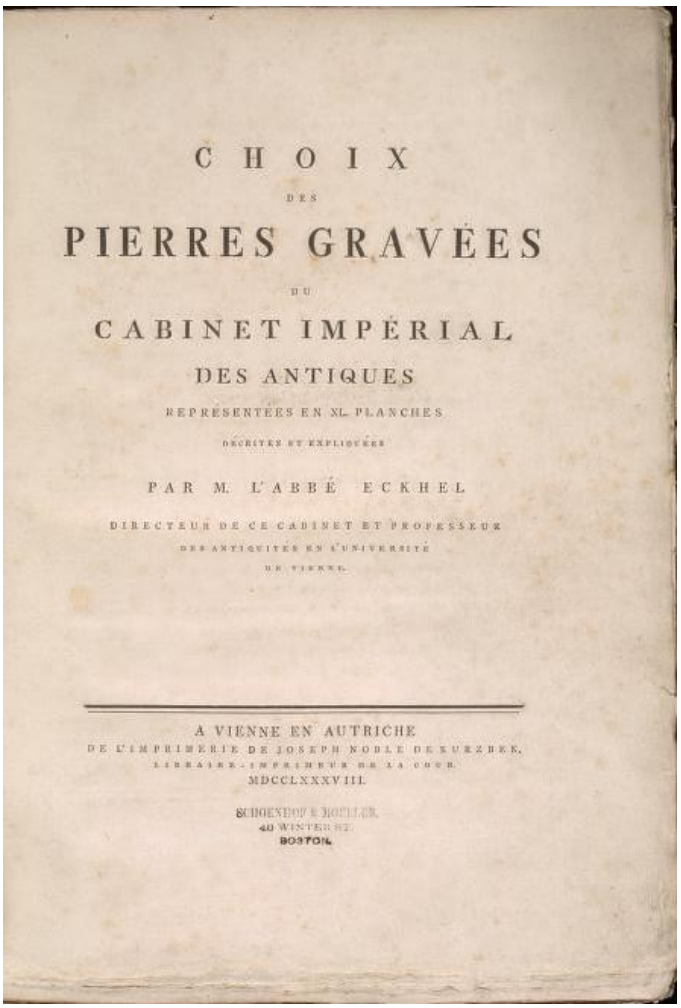
CHOIX
DES
PIERRES GRAVÉES
DU
CABINET IMPÉRIAL
DES ANTIQUES
REPRÉSENTÉES EN XL. PLANCHES
DÉCRITES ET EXPLIQUÉES
PAR M. L'ABBÉ ECKHEL
DIRECTEUR DE CE CABINET ET PROFESSEUR
DES ANTIQUITÉS EN L'UNIVERSITÉ
DE VIENNE.
A VIENNE EN AUTRICHE
DE L'IMPRIMERIE DE JOSEPH NOBLE DE KURZBECK,
LIBRAIRE-IMPRIMEUR DE LA COUR.
MDCCLXXXVIII.
SCHOENHOF & MOULTON,
40 WINTER ST.
BOSTON.

Figure 1. Joseph Hilarius Eckhel. *Choix des pierres gravées du Cabinet Impérial des antiques*. Frontispiece. Public domain.

Eckhel is fully aware of his 'mission' to offer the public a hidden, closed, buried treasure almost unknown to scholars. But he is also aware of how complex and problematic it is to publish such a big and varied collection. During Eckhel's time, the *Schatzkammer* consisted of almost 1100 specimens, including 420 cameos, 200 gems, and 168 intaglios made by Louis Siries (approximately 1686 - 1762). Eckhel publishes only 23 cameos and 17 intaglios and explains the objectives and criteria that guided him in his selection.

The first reason is economic: a larger publication would have caused great expense and the considerable price of a voluminous text would have limited prospective sales.

The second reason is that Eckhel does not believe that every engraved stone should be published without distinction. As a consequence he has omitted all the indecent subjects, the heads of divinities and emperors that did not present anything new or worthy; and – it must be emphasized – talismans, abraxas and modern stones. In fact, he participates in that same enlightened, illuministic spirit as shown by some contemporary authors – his points of reference, such as Jean Mariette (1694 - 1774) and Anne Claude Philippe, comte de Caylus (1692 - 1765) – with a scientific, critical, and even sarcastic attitude. An extremely cautious approach prevails in Eckhel's work: a rationalism, a skepticism that is perhaps too hasty, simplifying symbolic language, complex iconographies full of allusions and allegories, sometimes dismissing as accessory ornaments pregnant attributes, and symbols on which other scholars have focused, considering them decisive arguments. Thus, he does not decode the allusive and celebratory meaning of gems, and it is emblematic that Eckhel does not grasp the magical value that gems can have.

He gives short, simple and precise descriptions and explanations; he suppresses excessive erudition, he does not venture into unfounded conjectures, which are not useful. According to him, subjects that are too ambiguous or indecipherable are very common defects in inventions due to libertinism and to superstition. Symbols for him are often vague and indeterminate, and perhaps result only of the fantasies either of the artist or of the client. He condemns antiquarians who relate everything they explain to known myths or historical events, and want to frame subjects that are sometimes pure whim; they want to show off their erudition and often neglect to account for the natural qualities of the stone, the merit of the engraving, and its artistic beauty.

With caution, Eckhel tries to identify the subject, quoting literary sources, and making comparisons with other classes of materials, especially coins. He does not dare suggest names and identifications of the characters depicted, but seeks solid bases, for example similarities shared with the features on coins. Sometimes, in the absence of decisive elements, he concludes that no satisfactory explanation can be advanced. Later scholars often share his interpretations and identifications.

Eckhel is perfectly informed about glyptic studies, famous contemporary engravers, and scams, such as falsely signed gems, designed to increase the price.

Another significant merit of Eckhel is that he takes care to illustrate the qualities of the stones and the engraving, while the prevailing situation amongst contemporary scholars was to pay no attention to the original. He also raises the particularly interesting and very modern question of provenance: from which mines did the ancients source the hard stones.

The scholar considers all the gems he publishes to be ancient; instead, several are now rightly ascribed to the XVIth - XVIIIth century. But Eckhel's incorrect dating is often understandable for gems that are not easily recognizable as early modern because they faithfully adhere to the ancient model. Distinguishing between ancient and non-ancient gems is still a recurring, nagging, unsolved problem; the criteria are uncertain; in several cases the judgment remains arduous and controversial. Eckhel himself asks for the opinion of experts for a gem of suspect authenticity.

The high value of the *Choix* lies in the fact that the engraved stones are published in a critical and new way, many for the first time, while others are very famous masterpieces. And the *Choix* has enjoyed great popularity as a reference work – acting as a model for Eckhel's

observations, comments, digressions, for the beauty of its typographic execution, and for the accurate plates which are fairly faithful to the originals: it was the only reference publication when examining the Vienna collection.

Eckhel's total incomprehension often ends up in open condemnation towards the Magical (or Gnostic, Basilidian, Abraxas) gems, as to those gems conceived as amulets, which were objects and instruments of a very precise and complex ritual. His refusal for these kinds of artifacts must be read not only in the enlightened perspective with which Eckhel considers these gems, but also in the light of the peculiar problems that they present, so that for a long time they have struggled to be fully integrated into the study of classical gems.

The cameo of Harpocrates

Let us consider the beautiful cameo in dark green chrome chalcedony that Eckhel publishes in the *Choix* (Eckhel, 1788, pp. 60-61, pl. XXX; Figs. 2, 3a-b). He believes that it deserves a special place in the collection, for aspects like the beauty of the stone, and the subject. According to him, its antiquity certainly does not date back to "beaux siècles des arts", judging by the design (which is not free of defects), the chosen stone (one that ancient artists rarely used), and the inscription. Actually, this cameo (IXa 41; Antikensammlung, Kunsthistorisches Museum, Vienna) is dated by more recent scholars to the second half of the IInd century BC - first half of the Ist century BC (Zwierlein-Diehl, 2008, p.186; Zwierlein-Diehl et alii, 2008, p. 331; *CBd*-1975 (cbd.mfab.hu/cbd/1975); Zwierlein-Diehl, 2014, p. 111; Faraone, 2018, p. 156; Rózsa, 2023, pp. 41-42, figs. 2a-b, with question mark) or the early imperial period (Eichler & Kris, 1927, pp. 73-74, no. 52, pl. 11, fig. 30).

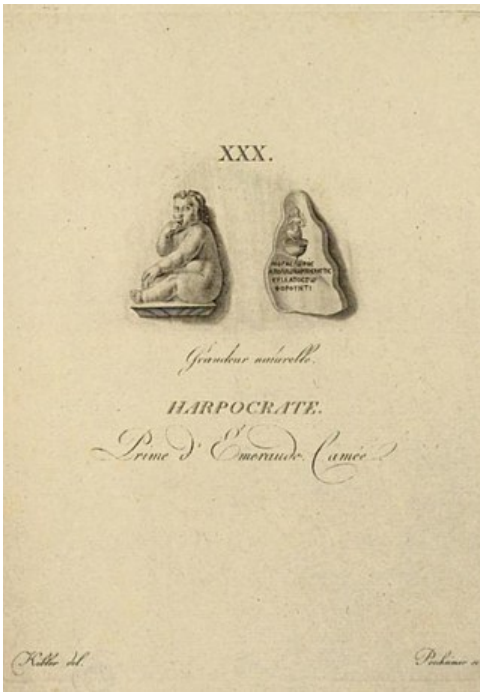

Figure 2. Cameo/intaglio. Obverse: Harpocrates seated with hand raised to mouth; reverse, the deity on a lotus flower (Eckhel, 1788, pl. XXX). Public domain.

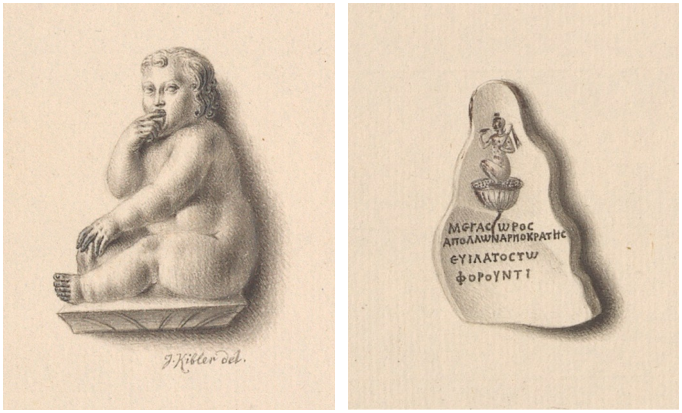

Figure 3a. Cameo. Harpocrates seated with hand raised to mouth. Ignaz Kibler's Drawing for Eckhel, 1788, pl. XXX. © Kunsthistorisches Museum, Vienna, archive of the Collection of Greek and Roan Antiquities, inv. no. XIV Z 35.21. Courtesy Museum.

Figure. 3b. Intaglio. Horus-Harpocrates seated on a lotus flower with his finger up to the mouth. Ignaz Kibler's Drawing for Eckhel, 1788, pl. XXX. © Kunsthistorisches Museum, Vienna, archive of the Collection of Greek and Roman Antiquities, inv. no. XIV Z 35.21. Courtesy Museum.

Eckhel recalls its provenance, the collection of Cardinal de Granvelle, that is Antoine Perrenot de Granvelle (1517 - 1586), famous patron, minister of the emperor Charles V and his son Philip II, king of Spain. It is engraved on both sides illustrating Harpocrates in two different attitudes. On the front side in high relief, he is depicted as a seated child holding his finger to his mouth and with no attributes; on the back, are engraved inscription and the god, seated on a lotus flower, the right hand near the mouth, a whip held in the left hand, and the head surmounted by a small globe, such as is often seen on the coins of the Emperors minted at Alexandria, in Egypt. The scholar explains that Harpocrates was the son of Osiris and Isis, one of the main Egyptian deities that constitute the sunset; the globe on the god's head alludes to the disk of the sun; a typical attitude is the finger of the right hand near the mouth - in fact, Greek and Roman authors made Harpocrates the symbol of silence. Eckhel illustrates the meaning of the Greek inscription with the three different names for the same deity: may the great Horus Apollo Harpocrates be propitious to the bearer! Other monuments prove that Horus was often confused with Harpocrates, and it is obvious that the Greeks identified him with Apollo, who for them was the personified sun.

Eckhel mentions ancient sources such as Plutarch, Catullus, and Pliny the Elder, an amulet with almost the same inscription, and two gems published by the comte de Caylus. In addition, Eckhel specifies that in the text on Harpocrates by Gisbert Cuper (1644 – 1716. Cuper, 1687, pp. 155-156; Zwierlein-Diehl et alii, 2008, pp. 333-334, fig. 25) the cameo from the Granvelle collection is published with the gold mounting, which he has chosen to omit in the plate.

Concluding that the stone served as an amulet, Eckhel reserves, as usual, a long and highly critical comment for

the note. Harpocrates is one of the most accredited deities under the reign of superstition, as evidenced by the large number of amulets, talismans, abraxas, on which he is often seen loaded with ridiculous symbols and surrounded by enigmatic inscriptions, which a man of good sense does not undertake to explain. His cult, not limited to Egypt, was introduced to the Greeks and Romans who, apparently bored by the uniformity of their gods, sought variety in foreign superstitions. Pliny the Elder derides the fact that Harpocrates and other Egyptian deities are worn, mounted on rings (Plin. *HN* 33, 12. 41). The same author writes that in the East it was customary to carry as amulets stones that approached the emerald (Plin. *HN* 37, 37. 118): so the stone of this piece is a further proof that it served as an amulet.

It is not our aim to examine in detail all aspects of this cameo (4.2 × 3 cm), with an intaglio on the reverse side, which fits in the genre of 'Harpocrates gems', by analysing the historical context of the group, the evolving image, the exchange of interpretations, ideas and motifs among authors over the centuries, and the post-antique Harpocrates gems. Due to his gesture of raising a hand to the mouth, Horus-Harpocrates was seen as the protector and the keeper of secret knowledge, as a symbol of political virtues, wisdom, self-control, and moral guidance for leaders of the time. Emphasizing the silence, he became a central figure within Freemasonry (Rózsa, 2020, pp. 69-70; Rózsa, 2023, pp. 38-44; Rózsa, 2025).

It seems, however, appropriate to comment on some of the elements of our cameo / intaglio, provided by later scholars who analyse gem, the Greek inscription, Harpocrates, ancient sources, similar specimens, the various dates of the mounting (almost certainly not ancient, perhaps belonging to the XVIth century) and give the complete bibliographic references (Eichler & Kris, 1927, pp. 73-74, no. 52, pl. 11, fig. 30; *SGG I*, 2003, p. 166, no. 22 [Mariangela Monaca]; Zwierlein-Diehl, 2008, pp. 186-189, no. 19; Zwierlein-Diehl et alii, 2008, pp. 331-337, no. 19; *CBd*-1975 (cbd.mfab.hu/cbd/1975); Zwierlein-Diehl, 2014, pp. 111-112, figs. 6-7; Faraone, 2018, pp. 156-158, fig. 6.4; Rózsa, 2023, pp. 41-44, figs. 2a-b. Furthermore, Tassinari, 2022, pp. 324-325, 365, fig. 16.1-2; Rózsa, 2025, fig. 3) (Figures 4a-b). Scholars agree with the description, the explanation and the reading of the inscription given by Eckhel. But *sub iudice* are the image and inscription engraved on the reverse side. They are a non-ancient addition (XVIth century AD), an 'imitation' inspired by careful study of ancient magical amulets; the image of Harpocrates is a fine example of Renaissance gem-cutting. It is not a fake: the ancient original is so highly esteemed that the addition is intended to increase its value (Zwierlein-Diehl, 2008, pp.188-189; Zwierlein-Diehl et alii, 2008, pp. 331, 335; *CBd*-1975 (cbd.mfab.hu/cbd/1975); Zwierlein-Diehl, 2014, p. 111; Rózsa, 2023, pp. 41-42, figs. 2a-b).



Figure 4a. Cameo. Harpocrates seated with hand raised to mouth. Vienna, Kunsthistorisches Museum. © Kunsthistorisches Museum, Vienna, Antikensammlung. https:// www.khm.at/kunstwerke/sitzender-harpokrates-59133.

Figure 4b. Intaglio. Horus-Harpocrates seated on a lotus flower with his finger up to the mouth. Vienna, Kunsthistorisches Museum. © Kunsthistorisches Museum, Vienna, Antikensammlung. https:// www.khm.at/kunstwerke/sitzender-harpokrates-59133.

Instead, according to Christopher Faraone, the inscription is not odd and it does not differ from some ancient examples: the text and second image were added in the late Roman period (Faraone, 2018, pp. 157, 361-362, note 57).

I just would add a very brief note on the stone: its green colour is chosen for the new-born god, because it recalls new vegetation and life. Eckhel calls it an emerald prism, while other scholars identify it as plasma (mineralogical analysis: Zwierlein-Diehl et alii, 2008, p. 331, no. 19), emerald plasma (Eichler & Kris, 1927, p. 73, no. 52), a variety of chrysoprase (Eichler & Kris, 1927, p. 73, no. 52), green quartz (Zwierlein-Diehl, 2008, p. 186, no. 19; Rózsa, 2023, p. 42, figs. 2a-b), prase (Butini & Butini, 2022, p. 105, fig. 127), or a green gem (Faraone, 2018, p. 158, fig. 6.4). The uncertainty surrounding the name of this stone derives from the fact that in ancient, medieval and modern texts, the multitude of 'green gemstones' are confusingly called: plasma, prasium, chrysoprase, prasma, prase, emerald, root emerald, emerald plasma, green chalcedony and so on. Actually, there is just one mineral hidden behind all of these names: microcrystalline quartz, a green chalcedony which can be referred to as chrome chalcedony.

Recent research regarding the classification of green gemstones known in ancient times is seeking to clarify the matter, to identify the gemstones by carefully examining their characteristics, to obtain a clear characterisation, to provide a precise gemmological name and a gemmological interpretation of the corresponding mineralogical varieties according to today's nomenclature (Butini & Butini, 2022).

Emerald is rare, especially in ancient times, and is a very hard material unsuitable for engraving (Tassinari in press).

Alessandra Magni, *The "amuleti" of Luigi Bossi*

The choices operated by Eckhel also demonstrate how difficult it was in that period to approach the study of



Figure 5. Milan, Palazzo Morando. A portrait of Luigi Bossi, by Giovan Battista Comolli (1775 - 1831), in the Gallery of Busts of Illustrious Citizens. Photo by the Author, October 2024.

gem-amulets with a neutral attitude; prejudices were variously dictated by Christian morality, scientific approach and Enlightenment ideas.

The problem was also addressed by Luigi Bossi Visconti (Milan 1758 - 1835), a noble scholar and civil servant who spent most of his life in Milan, the main centre of the Italian Enlightenment (Figure 5). The studies by Giorgio Federico Siboni and Elena Agazzi have recently reevaluated this figure; I started from their works for my observations (Siboni, 2010; Agazzi, 2017).

Luigi Bossi's family encouraged him to pursue an ecclesiastical career, and he became a monsignor in the cathedral chapter; however, his ideas and commitment to administration distanced him from that role, until he returned to lay life. He participated in the public life of Milan and the North of Italy during the final years of the Duchy of Milan, the rise of the Cisalpine Republic and then the Napoleonic Era, until the return of the Habsburgs to Lombardy according to the Vienna Congress.

His attempts to juggle the various administrations and his active collaboration with the Napoleonic government, in crucial and prestigious roles, earned him the reputation of an ambiguous figure and, after 1815, also isolation and progressive oblivion.

Furthermore, some financial difficulties had forced him to temporarily abandon Milan and his assets as early as 1795 and to disperse them, especially his art collections.

The judgment towards Luigi Bossi the scholar has often been severe, since he is reproached for his lack of autonomy (Micheli, 1994, p. 114). However, he is often meticulous in his observations, which do not spare any of the erudite contemporaries, including Johann-Joachim Winckelmann (1717-1768) himself, from his criticism (Agazzi, 2017, pp. 72-73). In glyptics he is strongly and openly indebted to Giovan Battista Passeri (1610-1679), the co-author of *Thesaurus gemmarum antiquarum astriferarum* (Gori, 1750), with Francesco Gori (1691 - 1757) and he is aware of Gioseff'Antonio Aldini's (1729 - 1798) *Istituzioni glittografiche* (Aldini, 1785), which he thoroughly analysed and criticised in the essay *Osservazioni sulle gemme incise scritte da un accademico etrusco* (Bossi, 1786; Siboni, 2010, pp. 73-75, note 111).

Rereading his figure as a man and scholar is the way to deal with a minor collector, of which there were many at this time. Compared to them, Luigi Bossi was fortunate enough to publish his small, private collection, now dispersed.

Topic, structure, purpose of the Spiegazione

On 13th August 1795, Luigi Bossi presented his own collection of ancient engraved gems to the Società Patriottica of Milan, a public institution founded by decree of the empress Maria Theresa in order to promote art, crafts and culture (Siboni, 2010, p. 107).

In the same year he published a first *centuria* (a group of 100 gems) in the volume *Spiegazione di una raccolta di gemme incise dagli antichi con osservazioni risguardanti la religione, i costumi, e la storia dell'arte degli antichi popoli*

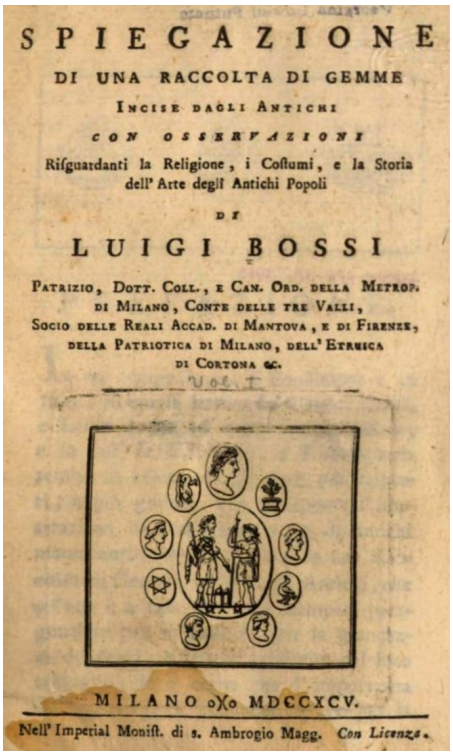
SPIEGAZIONE
DI UNA RACCOLTA DI GEMME
INCISE DAGLI ANTICHI
CON OSSERVAZIONI
Risguardanti la Religione, i Costumi, e la Storia dell'Arte degli Antichi Popoli
DI
LUIGI BOSSI
PATRIZIO, DOTT. COLL., E CAN. ORD. DELLA METROP. DI MILANO, CONTE DELLE TRE VALLI, SOCIO DELLE REALI ACCAD. DI MANTOVA, E DI FIRENZE, DELLA PATRIOTICA DI MILANO, DELL'ETRUSCA DI CORTONA &c.
MILANO oXo MDCCXCV.
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Figure 6. Luigi Bossi, *Spiegazione di una raccolta di gemme incise* (Bossi, 1795). Frontispiece. Public domain.

(Bossi, 1795; Figure 6). Bossi aimed to publish the entire collection (Bossi, 1795, p. XXV), but he had to give it up due to unfortunate economic and judicial issues and a bankruptcy; he had to temporarily leave Milan, so his art collections were dispersed. We know that Abbott Carlo Antonio Pullini purchased some of these gems (Bossi, 1795, pl. III, no. 49, pl. IV, no. 85: Micheli, 1994, pp. 111, 127, note 18).

The intaglios published in the *Spiegazione* are indeed a selection, but the choice is made without moral prejudice. Bossi considers all those "pietrelle" (little gemstones) to be interesting. The result is a huge work, well over five hundred pages long, in which the collection is presented not in the form of a catalogue, but by themes which correspond to one or more chapters of the book. Presentation by topics is a debt of the author to the tradition of glyptic essays of the XVIIth and XVIIIth centuries, starting from *Le gemme antiche figurate* di Leonardo Agostini (Agostini, 1657).

There is a list of all the gems at the end of the *Spiegazione*, in the same order as they are presented in the plates of the book. Bossi, however, promises that, at the end of the complete work, it will be a list inspired by the structure conceived by Winckelmann for the Stosch collection (Bossi, 1795, pp. XVI-XVII). By the end of the XVIIIth century, in fact, the *Description des pierres gravées du feu Baron de Stosch* (Winckelmann, 1760) had become a scientific model for the organisation of similar collections. Luigi Bossi knew Winckelmann's works and, together with other Milanese patricians and scholars, financed the Italian translation of the *Geschichte der Kunst des Altertums* (Panza, 2017, p. 138).

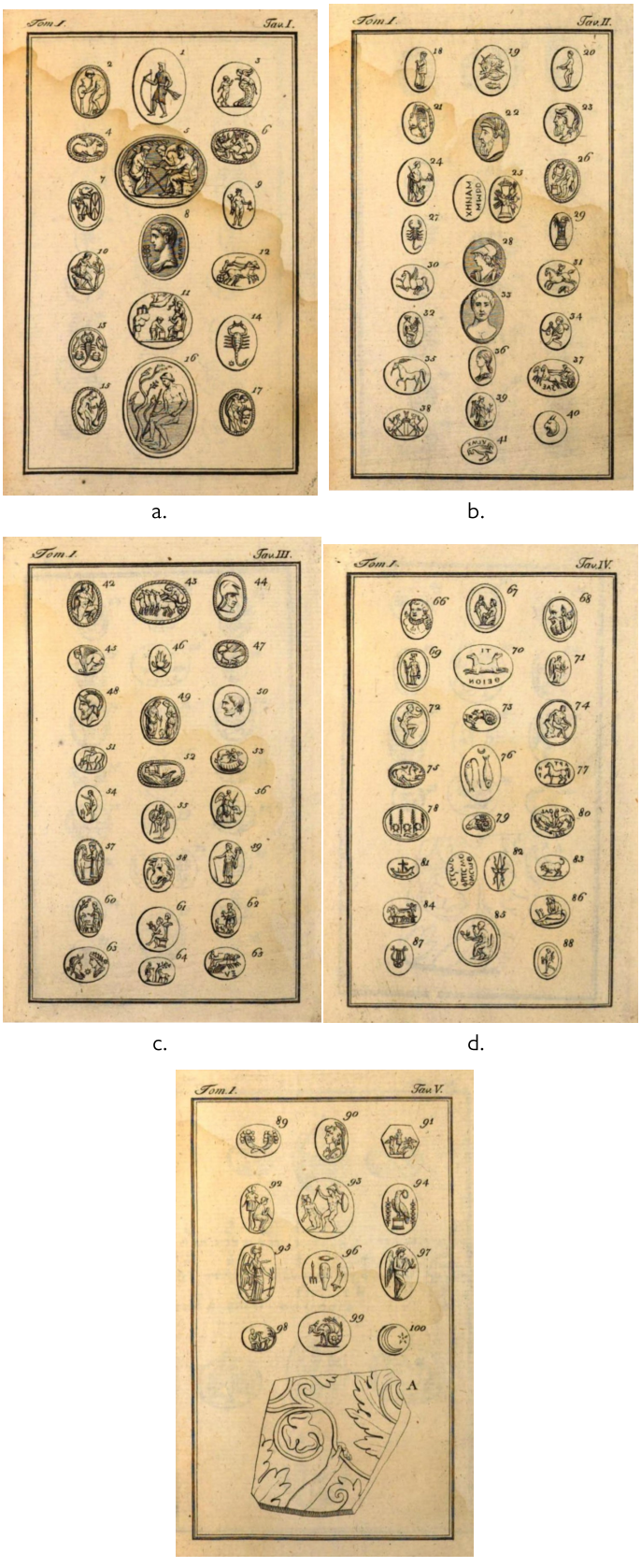
Images of the gems of Bossi's collection occupy five of the seven book's plates. Bossi declares that every gemstone was reproduced by the engraver Gerolamo Mantelli (*floruit* 1785 - 1793) either directly or from casts, as they gradually came into his own possession; the plates were later composed without any precise order (Bossi, 1795, pp. XV, XVII; Figures 7a-e).

Although Bossi praises the work of Mantelli, the drawings are very simple, and it is difficult to obtain from them information about engraving techniques and style of the originals.

However, in the text there are images of further gems, each of which is briefly commented upon separately; amongst them there is an early modern necklace adorned with a group of post-classical gems (Bossi, 1795, pp. 479-482).

Bossi is very proud of his gemstones, because of their antiquity and the various iconographies represented amongst them; he declares he had collected only two or three glass pastes (Bossi, 1795, pp. XIII-XIV).

Examining the images reveals that most of the engraved gems collected by Bossi are Roman; nevertheless, he reserves space for Etruscan scarabs and Egyptian subjects and products. Bossi in his *Spiegazione* also reproduces the famous *Gemma Ansidei*, which was in the frontispiece



a. b. c. d. e.

Figures 7 a-e. Bossi, 1795, plates I-V. Public domain.

of Winckelmann's *Geschichte*, and comments upon it (Bossi, 1795, pp. 358-368; Agazzi, 2017, pp. 72-73; Panza, 2017, p. 138, fig. 3). While his interest in Etruria reflects the passion of XVIIIth century scholars for Italic art, Bossi's adherence to the ideas of Freemasonry and Enlightened groups drew his attention to Egypt (Agazzi, 2017, p. 73).

As Elena Agazzi noted, Bossi does not consider the works of the most ancient civilisations, such as that of the Egyptians, to be backward or primitive at all. In fact, unlike Winckelmann, he did not necessarily consider beauty to be the driving force of art civilisation (Agazzi, 2017, p. 71).
Bossi is also interested in monsters and their representation, with both naturalistic and scientific aspects, and symbolic meanings animating his volume about *Basilischi, dragoni ed altri animali* (Bossi, 1792; Siboni, 2010, pp. 81-82).
In the *Introduzione* chapter to the *Spiegazione,* Luigi Bossi traces the history of the glyptic research of the XVIIth and XVIIIth centuries, quoting the works of Agostini, Gorlaeus, De Wilde, Gori. The author finds there are many defects in the composition of these collections: the unconscious mix of original gems and replicas; the redundancy of the iconographies represented; an exceptional piece – a large cameo – is isolated among many "pietrelle". Bossi also proclaims a severe judgment on gem descriptions and reproductions. Sometimes, the images are excessively enlarged compared to the originals; they are enriched with imaginary details, if not disfigured; beautiful images are not accompanied by equally erudite texts (Bossi, 1795, pp. V-XV).
The introduction is followed by a surprising bibliography. Alongside the indispensable earlier and contemporary texts, there appear many works that the author himself declares to be unobtainable. The list is intended to be proof of Bossi's wide erudition even if it is not clear whether all the texts were so well known to him (Bossi, 1795, pp. XXVII-L; Agazzi, 2017, p. 64).

Amuletic gems according to Bossi's Spiegazione

While reading the *Spiegazione*, I tried to recognise which were amuletic gems, according to Bossi, and which other categories they might belong to. How did Bossi rate them? Are there other gems, not deserving the title of amulets, on which to focus attention?
Bossi is interested in the magical and esoteric aspects of the glyptic iconographies (Agazzi, 2017, p. 71). However, the explicit term "amuleto/amuleti" rarely appears in the text: Bossi (1795: pp. 22-23), quotes Caylus about Etruscan scarabs, in order to reject him; at p. 61, he quotes Caylus once again, about a Persian gem. The other quotes are in chapter XVII (see later in this text). The term "talismano/talismani" appears only twice, and referring to a famous historical object, the talisman of the Cabinet of Sainte Geneviève in Paris (Bossi, 1795, p. 317 = Du Molinet, 1692, p. 127, pl. 20, VIII; Dias, 1990), and not to a gemstone collected by the author.
In fact, Bossi believes that gems are chosen and worn not only for prophylaxis and for the moral meaning of the figures, but rather because they are abundant, or aesthetically pleasing.
Reflecting on the shape and the monture of the Etruscan scarabs, he writes:

> "I […] have observed entire ancient necklaces full of these Scarabs; the Ancients gave them some symbolic virtue because of their shape; but I also think that because of their frequency, and the convenience that they offered with their transverse hole, they were more often and in greater abundance applied to the ornamentation of necklaces and jewels, without always having to rely on their intrinsic amuletic character" (Bossi, 1795, pp. 22-23; translation by the Author).

Furthermore, amongst the Roman gems, Bossi selects at least two categories for their prophylactic value: the gems with stars, *gemmae astriferae* (chapter X), and the "abraxas" gems (chapter XVII).
In both essays, the author proceeds in the same way: he presents non-original ideas and theories, summarizing contemporary texts on these themes and explicitly declaring his sources; he focuses on essential examples or motifs, such as the Giant Anguipes or the inscriptions IAW and ABRASAX.
The work becomes more interesting when Bossi tries to place some engraved gems he collected within these categories, justifying the choices he made.
The pieces are commented upon using a repertoire of vast erudition, but Bossi does not omit technical-scientific observations of the materials. Scientific interest, indeed, animates all of Bossi's early erudite production, as Siboni rightly noted. This interest was then widely developed in the *Spiegazione di alcuni vocaboli geologici, litologici, mineralogici* (Bossi, 1817) in which Bossi expressly quotes the *Spiegazione di gemme* (Siboni, 2010, p. 363).

"Gemme astrifere"

According to Giovan Battista Passeri's *Prolegomeni* to the *Thesaurus gemmarum astriferarum* (Gori, 1750), in chapter X Bossi recognises six types of gems bearing stars and, where possible, he connects some *specimina* from his own collection to each type (Bossi, 1795, pp. 201-202). I list the groups, indicating in brackets the gems in Bossi's *Spiegazione*. I: the star is associated with another subject (Figure 7c, pl. III, 63; Figure 8); II: the star is associated with the moon (Figure 7d, pl. IV, 100); III: Moon and stars, up to seven, to represent the planets; IV: Moon and stars over seven, representing the celestial vault; V: star associated with the zodiac sign (Figure 7a, pl. I, 14); VI: star associated with other constellations.
Bossi identifies three reasons which motivate the engraving of stars on gemstones. "Religione": the stars



Figure 8. Bossi, 1795, plate III, 63. "Agata Zaffirina", depicting the busts of Apollo and Diana with three stars. Public domain.

represent the divine elements in the Nature; "virtù naturale supposta nelle pietre": the stones may protect and help the bearers regarding health and wealth; "augurio": the image reproduces the Horoscope of the gem holders and bearers (Bossi, 1795, pp. 202-204).

Basilidians gems: three specimina

Chapter XVII, too, is strongly related to the works of Passeri. Here Bossi reiterates some concepts explained in the *Tesoro delle gemme astrifere*. The so-called "basilidian gems" are not all created by heretical adepts; it would be better to call them magical, since they carry several images of pagan or Egyptian deities. Their number is very abundant, accounting for up to a third of the known gems (Agazzi, 2017, p. 70; Bossi, 1795, p. 311).
Bossi also expresses a severely critical opinion regarding the superstition that created them.

> "Therefore those stones, which are not strictly Basilidian, or which are clearly not seen to have been defaced by those Heretics, owe their origin and formation to something entirely different, and must rather be called monstrous products of the imposture of astrologers, fortune-tellers, witches, charlatans, enchanters, and false physicists, who, not being able to use an art which they did not possess, supplied with these resources of the most infamous imposture, since all the East, and a good part of Italy, and even Rome were infected with the frenzy of amulets" (Bossi, 1795, p. 312; translation by the Author).

As you can see, the negative judgement is not addressed in the first instance against the users, but against the promoters of superstition, lacking the scientific skills that modern times can provide.
Among his own gems, Bossi identifies three abraxeous gems. It should be noted that these three gems do not present typically magical iconography, like Chnoubis or the Anguipes. But according to Bossi, it is the inscription that makes a gem 'abraxeous' (Bossi, 1795, pp. 306-307). Regarding the inscriptions, Bossi notes how they mix words of various origin (Greek, Syrian, Hebraic, Egyptian) and how these words are modified. He recognises the presence of *characteres*, that he calls "figure grammaticalmente indefinibili" (figures grammarly undefinable: Bossi, 1795, p. 313; translation by the Author). He personally suggests also that characters could be inspired by chemistry or alchemy (Bossi, 1795, pp. 312-313).
The first gemstone is a yellow jasper, engraved on both sides (Figure 9; Bossi, 1795, pl. II, 25). On the obverse, according to Bossi, there is a column, surmounted by a flower and decorated with a pair of clasped hands, ears of corn and a capsule of poppy. Unfortunately, the engraving has been partly misunderstood by Bossi: by rotating the picture, you can clearly see only the clasped



Figure 9. Bossi, 1795, pl. II, 25. A yellow jasper; reverse: inscription; obverse: dextrarum iunctio; the obverse, rotated.
Public domain.

hands with their associated forearms, holding a poppy capsule flanked by corn ears (Bossi, 1795, pp. 318-322, pl. II, no. 25). The simple drawing, as mentioned, does not allow us to distinguish the style of the engraving. We can assume, however, that the gem in Bossi's collection was not very different in style from some unpublished engraved gemstones proposed here as a comparison, belonging to the collection of the Museo Archeologico al Teatro Romano of Verona (Figures 10, 11), which was formed at approximately the same time of Bossi's collection (Tassinari & Magni, 2023). On the yellow jasper in Figure 10 (MATR no. 27956, mm 9.5 × 12 × 2.5), the shape of forearms is very close; on the green chalcedony in Figure 11 (MATR no. 27959, mm 6.4 × 8.9 × 2), a poppy capsule flanked by a pair of corn ears is depicted, in a similar way. Bossi recognises the figurative subject as a symbol of behaviour, fidelity and wealth: only poppies are related to magic too. So, it is the inscription



Figure 10. Verona, Museo Archeologico al Teatro Romano, inv. no. 27956. A yellow jasper, depicting a dextrarum iunctio with a pair of cornucopiae and corn ears. Photo by G. Fogliata, 2011. Courtesy Museum.



Figure 11. Verona, Museo Archeologico al Teatro Romano, inv. no. 27959. A green chalcedony, depicting a dextrarum iunctio with a poppy capsule and a pair of corn ears. Photo by G. Fogliata, 2011. Courtesy Museum.

on the reverse side, which according to Bossi was later engraved, that makes this intaglio an Abraxas gem.
Bossi transcribes two lines of text, in Greek characters: XHNAM / MOPD and searches for other similar inscriptions, with little results.
Finally, he concludes that "many gems of more ancient date and of entirely different matter have been corrupted or altered by the Gnostics and the Basilidians or by other impostors with the addition of strange and inconclusive characters" (Bossi, 1795, p. 322; translation by the Author).
The use of yellow jasper is typical for amulets too: "The yellow jasper […] could perhaps be of that species which was worn throughout the East as an amulet" (Bossi, 1795, p. 322; translation by the Author).



Figure 12. Bossi, 1795, plate IV, 70. "Basalto", depicting a double monster, with inscription. Public domain.

The second engraved gem presents an inscription too (presumably spurious): TI / ΘEION (Figure 12; Bossi, 1795, pl. IV, 70). Bossi is nevertheless more interested both in the stone – a black basalt "naturalmente d'Egitto" – and in the figure of a monster with double busts and heads, that he compares to the double capricorn found on Vespasian coins (Bossi, 1795, pp. 323-324). He offers some comparisons for the inscription, but he does not translate it. It is striking that the scholar does not connect *ti theion* "something divine" to a famous passage from Plato's *Apology of Socrates* (Pl. *Ap.* 31c8-d1: θεῖόν τι καὶ δαιμόνιον: "a divine and daemonic something"; Jedrkiewicz, 2011, pp. 213-214). In Bossi's library copies of Plato's oeuvres were preserved (Bossi, 1795, p. XLIII: "Platonis Opera, ed. Serrani. H. Steph. 1578. Fol."). At the end, Bossi believes the gem is magical, and a Graeco-Egyptian work.
The third gem is called "topazio" and is engraved on both sides (Figure 13; Bossi, 1795, pl. IV, 82). Bossi also explicitly uses the term "amuleto" for this intaglio (Bossi, 1795, p. 486, amendment to page 326).
On the reverse there there is a thunderbolt, adorned by a pair of wings. Bossi offers many comparisons with coins and gems for the image; he precisely discusses the elements of the bundle, that are three – *trisulcus* – with quotes of ancient texts and contemporary research (Bossi, 1795, pp. 324-326).

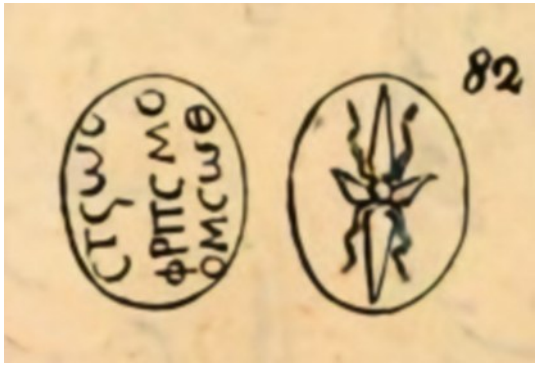


Figure 13. Bossi, 1795, plate IV, 82. "Topazio"; reverse: inscription; obverse: thunderbolt. Public domain.

Bossi says that "on the reverse of this stone there are words so badly put together that I don't even dare to repeat them" (Bossi, 1795, p. 326; translation by the Author).
Instead, he tries to transcribe part of the inscription: CTϛωO / ΦPΠCMO / OMCωΘ and offers the usual comparisons, but does not venture any interpretation about the "intelligenza" (meaning) and "intenzione" (aim) of the text.
He believes that the obverse and reverse in this case, as in previous examples, were created separately. He ends the paragraph with a Latin sentence: *in his verborum monstris sensum quaerere est operam aperte ludere* ("To search for meaning in these monsters of words is a waste of time": Bossi, 1795, p. 327; translation by the Author).



Figure 14. Bossi, 1795, plate V, 99. "Onice col velo turchino" (niccolo), depicting an elephant coming out from the shell. Public domain.

Other amuletic gems in Bossi's Spiegazione

Further gems that we usually interpret as amulets are presented by Bossi. For instance, amongst the combinations of heads or masks (as Figure 7e, pl. V, 90: Minerva), there are an intaglio with an elephant coming out of the shell (Figure 7e, pl. V, 99; Figure 14) and another one, depicting a combination of masks with an elephant's trunk (Figure 7a, pl. I, 21). The prophylactic function of similar images, which we would now ascribe to *probaskania,* has been extensively studied (Magni, 2023, pp. 61-63; Magni, 2024, with previous bibliography). Bossi here is more interested in the antiquarian aspects of the torch or in the significance of masks and he declares his skepticism about any moral interpretation of these subjects (Bossi, 1795, p. 262).

An outcome of Bossi's Spiegazione

Even when reading Bossi's *Spiegazione* superficially, some points emerge which can be explained both by his traditional, pre-Enlightenment education and training and by his encyclopaedic interest.

A distinction is made between ancient and modern products; Bossi prefers antiquity and he seems less attracted by modern engravers of the Neo-classical period.

Considerable attention is paid to stone mining and processing, as an aid to identify potential counterfeits. Bossi's training in the lithological field is valid and leads him to write manuals.

His fascination with the fantastic and the monstrous element could be a sign of the new times and the advance of the romantic spirit, as Elena Agazzi suggests. But even in this case the starting point is Bossi's training in pre-Enlightenment culture.

Eventually we can find in the text some insightful observations on the circulation of images: there is the awareness that the creators of the images, the engravers, and the users of gems, in addition to not being the same person, could have distant ideas and expectations. Gemstones were worked by craftsmen unconscious of their meanings (Bossi, 1795, p. 266); people wear and collect gems with different purposes including as amulets, of course, but also as curios and for their intrinsic beauty.

Final conclusions

The different approaches to amuletic gems held by Eckel and Bossi are evident and perhaps partly justified by the decades separating their birth and education. Both were sons of the Habsburg Empire; their training took place in schools of pre-Enlightenment tradition (the Jesuits for Eckel, the Milan Palatine Schools for Bossi), which would also shape their subsequent attitudes to research. Eckel was already an established scholar when he devoted himself to the edition of the Vienna gems. He felt a responsibility to publish the Habsburgs collection and was driven by its breadth to make a selection, omitting what he deemed irrelevant or immoral. Conversely, the young Luigi Bossi's legitimacy as a scholar and collector at the Società Patriottica of Milan also came from the publication of all the engraved gems he personally collected, which he reiterated were all interesting. Regarding amuletic gems, Bossi studied them and focused on criticizing magicians and charlatans, rather than their owners: in this he drew on the writings of Aldini and Passeri. While Eckel, due to his adherence to the Enlightenment, disdained fantastic and monstrous imagery, Bossi was drawn to these fantasies, anticipating the interests of Romanticism.

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References

Abbreviations for classical texts follow the *Oxford Classical Dictionary*, 4th edition (https://oxfordre.com/classics/page/3993#p).

Agazzi, E. (2017). Luigi Bossi in dialogo con Winckelmann. Studi antiquari e scienze naturali al tramonto del XVIII secolo. In A. Coletto, & P. Panza (eds.), *Winckelmann a Milano*, Scalpendi, pp. 62-63.

Agostini, L. (1657). *Le gemme antiche figurate*, appresso dell'Autore.

Aldini, G.A. (1785). *Istituzioni glittografiche*, per Gregorio Biasini all'Ins. di Pallade.

Ars Critica Numaria (2022). B. Woytek & D. Williams (Eds.). Ars Critica Numaria. *Joseph Eckhel (1737–1798) and the Transformation of Ancient Numismatics*, Österreichische Akademie der Wissenschaften, Philosophisch-historische Klasse, Denkschriften, 541, Veröffentlichungen zur Numismatik, 66, Austrian Academy of Science Press. https://doi.org/10.1553/978OEAW87745.

Bossi, L. (1786). *Osservazioni sulle gemme incise scritte da un accademico etrusco in proposito delle Istituzioni glittografiche recentemente publicate dal dottor Giuseppe Antonio Aldini di Cesena*, nella Stamperia di Francesco Pogliani, e Francesco Pulini.

Bossi, L. (1792). *Basilischi, dragoni ed altri animali creduti favolosi*, dai torchi di Luigi Veladine.

Bossi, L. (1795). *Spiegazione di una raccolta di gemme incise dagli antichi con osservazioni risguardanti la religione, i costumi, e la storia dell'arte degli antichi popoli,* nell'Imperial Monis[tero] di S. Ambrogio Magg[iore].

Bossi, L. (1817). *Spiegazione di alcuni vocaboli geologici, litologici, mineralogici per ordine d'alfabeto […]*, Sonzogno.

Butini, E. & Butini, F. (2022). *Prasio. Lo smeraldo degli imperatori. Indagine archeogemmologica sulle pietre verdi di Plinio. Prase. The Emperors' Emerald. An Archeogemmological Investigation of Pliny's Green Stones* (Bibliotheca Archaeologica, 75), L'Erma di Bretschneider.

CBd. The Campbell Bonner Magical Gems Database (2010), developed at the Museum of Fine Arts, Budapest, editor-in-chief: Á.M. Nagy. http://classics.mfab.hu/talismans.

Cuper, G. (1687). Harpocrates*, sive Explicatio imagunculae argenteae perantiquae; quae in figuram Harpocratis formata representat solem ejusdem Monumenta antiqua inedita*, apud Franciscum Halma.

Dias, N. (1990). *Le Cabinet de curiosités de la Bibliothèque Sainte-Geneviève*, catalogue de l'exposition, rédigé par Françoise Zehnacker et Nicolas Petit, Paris, Bibliothèque Sainte-Geneviève, 1989. *Gradhiva: revue d'histoire et d'archives de l'anthropologie*, n°8, pp. 110-112. www.persee.fr/doc/gradh_0764-8928_1990_num_8_1_1354.

Du Molinet, C. (1692). *Le Cabinet de la Bibliothèque de Sainte Geneviève. Divisé en deux parties…*, chez Antoine Dezallier. https://gallica.bnf.fr/ark:/12148/bpt6k314463c.

Eckhel, J.H. (1788). *Choix des pierres gravées du Cabinet Impérial des antiques représentées en XL planches* décrites et expliquées par M. l'Abbé Eckhel Directeur de ce Cabinet et Professeur des Antiquités en l'Université de Vienne, Imprimerie de Joseph Noble de Kurzbek.

Eichler, F. & Kris, E. (1927). *Die Kameen im Kunsthistorischen Museum* (Publikationen aus den Kunsthistorischen Sammlungen Wien, II), A. Schroll and Co.

Faraone, Ch.A. (2018). *The Transformation of Greek Amulets in Roman Imperial Times*, University of Pennsylvania Press.

Gori, A.F. (1750). *Thesaurus gemmarum antiquarum astriferarum,* interprete Io-Baptista Passerio, cura et studio Ant. Francisci Gori, Officina Albiziniana.

Jedrkiewicz, S. (2011). Sign, Logos, and Meaning: The Platonic Socrates and His Daemonic Experience. *Mètis*, N.S. 9, pp. 209-243. https://doi.org/10.4000/books.editionsehess.2612.

*Magie der Steine (*2008). Zwierlein-Diehl, E., *Magie der Steine. Die antiken Prunkkameen im Kunsthistorischen Museum*, mit Beiträgen von A. Bernhard-Walcher und P. Rainer, Christian Brandstätter Verlag.

Magni, A. (2023). La festa della vita. Un *baskanion* al Museo Archeologico al Teatro Romano di Verona. *La rivista di Engramma*, 200, 2, pp. 59-66. https://doi.org/10.25432/1826-901X/2023.200.0059.

Magni, A. (2024). Grylloi (once again). Notes on some unpublished intaglios in the Museo Archeologico al Teatro Romano of Verona. In S. Perea Yébenes (ed.), *Astrology and Magic in Ancient Gems*, Signifer, pp. 73-97.

Micheli, E. (1994). La dattilioteca di Carlo Antonio Pullini. In B. Palma Venetucci (ed.), *L'abate Carlo Antonio Pullini. Il manoscritto di un erudito e il collezionismo di antichità in Piemonte nel '700*, De Luca, pp. 105-128, 141-249.

Panza, P. (2017). Schede. In A. Coletto & P. Panza (eds.), *Winckelmann a Milano*, Scalpendi, pp. 105-168.

Rózsa, A. (2020). Gesundheit, wohlstand und liebe. Das Sonnenkind auf den Magischen Gemmen. *Antike Welt*, 3/20, pp. 66-70.

Rózsa, A. (2023). Methodologies in Studying Magical Gems in Ancient Studies – Some 'Interdisciplinary' Remarks, Problems, and Pitfalls with Focus on 'Harpocrates Gems'. *Gemmae. An International Journal on Glyptic Studies*, 5, pp. 35-53.

Rózsa, A. (2025). Horus-Harpocrates (on the Lotus) as the Keeper of Secret Knowledge: Depictions in Post-Antique Illustrations and Publications (of Magical Gems). In Una quae est omnia (?) *Ancient universal religions between locality and supra-regionality with specific emphasis on the example of the Isis and Osiris cults*, Leipzig, May 22-25, 2025 (Booklet).

SGG I 2003. A. Mastrocinque (ed.). *Sylloge Gemmarum Gnosticarum* (Bollettino di Numismatica, Monografia 8.2.I), Istituto Poligrafico e Zecca dello Stato.

Siboni, G.F. (2010). *Luigi Bossi (1758-1835). Erudito e funzionario tra Antico regime ed Età napoleonica*, Leone Editore.

Tassinari, G. (2022). Joseph Eckhel e le gemme, antiche e 'moderne'. In Ars Critica Numaria (2022), pp. 299-372.

Tassinari, G. (in press). I gioielli del "tesoro" di Lovere: gli anelli e la collana. *Lanx. Rivista elettronica della Scuola di Specializzazione in Beni Archeologici dell'Università degli Studi di Milano*.

Tassinari, G. & Magni, A. (2023). Giacomo Verità collector of coins and gems. In S. Krmnicek & H. Rambach, *Institutions and Individuals. The Numismatic World in the Long Nineteenth Century* (Routledge Studies in Cultural History),Routledge vol. 2, pp. 39-57.

Winckelmann, J.J. (1760). *Description des pierres gravées du feu Baron de Stosch*, chez André Bonducci.

Zwierlein-Diehl, E. (2008). *Antiken Prunkkameen im Kunsthistorischen Museum*. In *Magie der Steine* 2008, pp. 55-215.

Zwierlein-Diehl, E. (2014). Magical Gems in the Medieval and Early-Modern Periods. Tradition, Transformation, Innovation. In V. Dasen & J.-M. Spieser (eds.), *Les savoirs magiques et leur transmission de l'Antiquité à la Renaissance*, Sismel Edizioni del Galluzzo, pp. 87-130.

Zwierlein-Diehl, E., Bernhard-Walcher, A., Rainer, P. (2008). *Wissenschaftlicher anhang*. In *Magie der Steine* 2008, pp. 236-350.

SNAKESTONE AMULETS AND TALISMANS

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Summary
'Snakestone' is a term which can apply to several different types of items, which are unified by their supposed connection to snakes. This work considers four types of snakestone: *ophites*, glass beads (or similarly shaped substitutes), ammonites and stones reportedly extracted from the head of a serpent. When used medicinally, these snakestones were usually applied topically, however, there is also a smaller, but significant body of evidence that speaks to their use as amulets.
Ophites, rocks whose patterns are reminiscent of snakeskin, were worn as amulets for good health, believed to ward away various illnesses, such as the plague, and to repel poisonous creatures. *Ophites* amuletic pedigree can be traced to Pliny the Elder's *Historia Naturalis*, which held that serpentinite amulets could cure headache and snakebite.
Snakestones in the form of glass beads or spindle whorls are particularly strongly represented in UK regional folklore. They were frequently held to have been purposefully generated by the action of serpents. The shape of these beads suggested a rudimentary eye, and they were frequently credited with the ability to cure ocular diseases. This association was, however, extended to the supernatural sphere, and these beads began to be associated with magical 'sight', prophesying, and the ability ward off the evil eye. They were later associated with hagstones, naturally holed stones which themselves had a strong amuletic tradition and were hung in houses and stables to protect the occupants from witchcraft.
The amuletic tradition of ammonites shares some similarities with glass beads and, from the time of Pliny the Elder, ammonites were associated with prophesying and accruing luck. Among some indigenous tribes of North America ammonites were included in sacred bundles and medicine pouches.
Snakestones purportedly extracted from inside the head of certain serpents had various amuletic applications, particularly as an apotropaic against snakes, or against poisoning. This type of snakestone has also clearly evolved from amulet to fashion motif. A prominent jewel on the head of a serpent features particularly in the modern jewellery of Kenneth Jay Lane and Bulgari.

Keywords: snakestone; *ophites*; ammonite; apotropaic; protection.

Introduction

This paper considers the amuletic function of snakestones. Previous works have identified five different classes or 'types' of snakestone: stones reportedly extracted from the head of a dragon; stones reportedly extracted from the head of a snake; ammonite fossils; glass beads (or similarly shaped substitutes); and green, mottled rocks such as serpentinite (Pymm, 2017a). They are unified by their supposed connection to snakes or similar serpentine creatures – either the appearance of the snakestone was reminiscent of snakeskin or of snake forms; or they were believed to have been endogenous concretions harvested from snakes' crania, or the product of snakes' intentional labours. When used therapeutically, snakestones were usually applied topically, either to cure eye infections, or to treat envenomization by snakebite. Complementing previous work which has explored the medical applications of snakestones, this work provides a focussed consideration of their amuletic functions by using the extant archaeological evidence with a comparative study of the literary, historical, philological resources and folklore traditions to the theme, as well as examples from modern jewellery-making.

'Snakeskin' rocks (*ophites*)

Rocks of a mottled appearance, whose patterns were thought to resemble snakeskin were often termed *ophites* in early sources, stemming from the Greek *ophis*, meaning 'serpent' or 'snake'. *Ophites* is not a geological classification, and thus this term does not identify a specific rock. Some early sources, however, have equated *ophites* with particular rocks, including serpentinite and marble, many of which have a global geographic distribution. The key unifying feature of *ophites* is the snakeskin-like appearance of the stone, rather than its specific geological identity, therefore, this section will consider *ophites* as stones thought to resemble snakeskin, rather than reflecting any geological consistency.
A small number of sources detail the use of *ophites* as a topical snakebite treatment, but the greater proportion describe its efficacy as an amulet. Green stones such as some types of nephrite and serpentine have been associated with amulets for centuries: ancient Egyptians used them as a base material for heart scarabs – amulets intended to facilitate the passage of the deceased into the afterlife (Adderley, 2012, pp. 4-5). The rubric to Chapter 30B in the Egyptian *Book of the Dead* stipulated such amulets be fashioned from nephrite (Adderley, 2012, n.

20); serpentinite was sometimes used for these amulets as it was very similar in appearance to green nephrite, (see, for example, the Heart Scarab of Hatnefer, c. 1492 – 1473 BC, Figure 1).



Figure 1. The Heart Scarab of Hatnefer, c. 1492-1473 BC, The Metropolitan Museum of Art, New York. Object number 36.3.2.

An early reference to *ophites* being used as an amulet for its own supposed virtues is in the Hellenistic (323 – 30 BC) *Lapidary of Socrates and Dionysus*. This source refers to 'the wearer' which suggests that it was to operate as an amulet (Bianco, 1992, pp. 114-115). The lapidary states that it is effective against headaches, and that it can give sharp sight to weak eyes, stop headaches, improve hearing, and enable a man "slow and weak in the pleasures of love" to "reach emotion and desire" (Bianco, 1992, p. 115). [1]

The *Historia Naturalis* of Pliny the Elder (23/24 – 79 AD), credited *ophites* with curing headache and snakebite when worn as an amulet (Bostock & Riley, 1857, p. 327). He also recommended a white variant as an amulet for lethargy and phrenitis – an inflammation of the mind, which caused fever, delirium and death (Bostock & Riley, 1857, p. 328; Bynum, 2000, p. 1936). Considering the two sources above together, we gain the impression that *ophites* can bring the body back into its right order, perhaps balancing the humors, so that both deficits (such as in hearing, eyesight and sexual vigour) and excesses (characterised by the inflammation of phrenitis) are corrected and brought back into a stable equilibrium.

Drawing on Pliny's *Historia Naturalis*, Greek physician Pedanius Dioscorides (c. 40 – 90 AD) recommended *ophites* "being tied about one, is good for ye serpent-bitten & such as have ye headache; but that which hath ye lines is reported in particular to help ye Lethargy & headaches" (Gunter, 1968, Book 5, Section 162). Its use as an apotropaic amulet against snake-bite is then repeated through derivative works into the European Early Modern period. *Ophites* also garnered a reputation as an antidote to poison, likely an extension of its ancient reputation as a snake apotropaic, and through confusion with other types of snakestone which were more commonly used to treat envenomization by snakebite. Zoblitz in Saxony, Germany, was home to a renowned serpentine-turners guild which flourished between the late-sixteenth century and the mid-eighteenth century. During this time, serpentinite amulets were worn around the necks of the Zoblitz children because of serpentine's supposed general healing powers (Seyfarth, 1913 p. 260). An interesting charm was displayed at the Glasgow Exhibition of 1888 in Scotland: a serpent skin, sewn to a silk ribbon, with a mottled serpentine bead attached (Black, 1865, p. 499) (Figure 2). Unfortunately, no record remains of the specific uses of this particular charm as a whole; however, drawing on a description of a talismanic girdle from *A Description of the Western Islands of Scotland* (1703) by Martin Martin (c. 1660 – 1718), historian George Fraser Black (1865 – 1948) implies that the snakeskin part of the charm may have been for use against sciatica, whooping cough (pertussis), cramp or to ease childbirth (Black, 1893, pp. 499-500). The Exhibition record, conversely, focuses on the amuletic powers of the attached serpentinite bead, which it identifies as an adder-bead. Citing contemporaneous reports, such beads were said to ease childbirth, to ensure prosperity, ward away evil forces; specifically when worn as an amulet the adder-bead was employed against whooping cough and other childhood diseases (Paton, 1890, p. 338).



Figure 2. Serpent skin charm and talisman ring. Image © National Museums Scotland. Reference: K.2001.853.

[1] "Dona vista acuta a occhi deboli, fa cessare il mal di testa e sopprime le difficolta di udito al punto che chi la porta puo sentire ormai anche una conversazione a voce bassa. Dicono che l'uomo tardo e debole nei piaceri d'amore grazie ad essa giunge all'emozione e al desiderio." (Bianco, 1992, 115).

Snakestone 'beads'

The above is the only exemplar I have found to date of an adder bead being made of serpentinite. 'Adder-bead' is one of many names given to snakestones in the shape of thick, flattened, annular rings; specimens are usually made of glass or are holed stones previously used as spindle whorls. Although frequently just called 'snakestones', or a similar equivalent, they are here called 'snakestone beads' in order to distinguish them from the other types of snakestone.

Snakestone beads are particularly strongly represented in the folklore of Wales, Scotland and Cornwall. Folklore from these areas hold that these snakestone beads were intentionally produced and worked by snakes, either from their spittle, bodily slime, a shed snakeskin or a dead snake, or by the snakes boring through stones (Pymm 2018, pp. 404-414). They are, of course, man-made. Their shape suggests a rudimentary eye, which may be what led to their reputation as a topical treatment for eye diseases in Wales (Pymm, 2017b, p. 189).

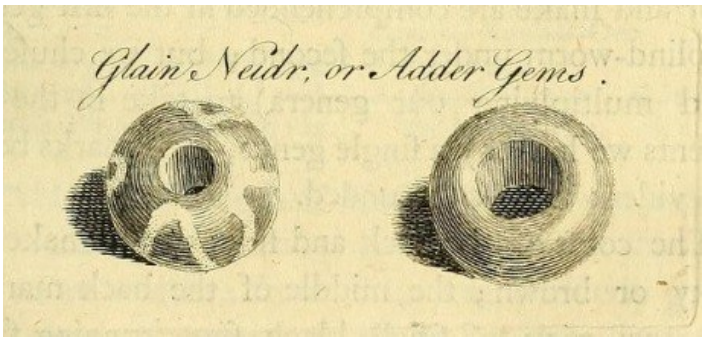

Figure 3. Glain Neidr or Adder Gems, Thomas Pennant, British Zoology, vol. 3, (Chester: Eliz. Adams, for Benjamin White at Horace's Head, Fleet Street, London, 1769), 23.

Welsh naturalist and antiquarian Thomas Pennant (1726 – 1798), in *British Zoology* (1776), recorded that, in Wales, the snakestone bead was being used "to cure the chin-cough [whooping cough], or to drive away an ague [malaria]" (Pennant, 1769, p. 23) (Figure 3). Pennant did not include any indication as to *how* the snakestone beads were employed to this effect, but it seems likely that it was through amuletic use. This supposition is strengthened by a parallel contemporary report from Scotland by historian Reverend David Ure (1749 – 1798), who reported the use of snakestone beads as amulets in the Rutherglen area, where they "were worn as an amulet about the necks of children" - presumably as a necklace pendant - "to cure sore eyes, the chincough, and some other diabetes" (Ure, 1793, p. 131). Whooping cough and ague were frequently fatal diseases in eighteenth century Britain (Pymm, 2017b, pp. 184-5). The use of snakestones to ward away ague also represents a rare parallel with English folklore, which is otherwise lacking in respect of snakestone lore generally. Herbert Toms (1874 – 1940) of Sussex recorded in the early twentieth century that holed stones were, by their mere proximity, used to treat ague in the south of the country. Toms' exemplars were holed beach pebbles strung together (Duffin, 2009, p. 61 and fig. 3).

Accounts of the snakestone beads from each of the three regions – Wales, Cornwall and Scotland – report that snakestone beads were considered lucky (Pymm 2017b, p. 190). However, one particular Scottish account depicts this luck as something of a double-edged sword, as the erstwhile fortunate owner of the snakestone bead was cursed with bad luck when they lost it. Such was the fate of a nineteenth century Scottish smuggler named Carnochan who owned an amber bead snakestone:

> "It originally belonged to […] a man of the name of Carnochan, a celebrated smuggler of the end of last century. The history of it, which of course is entirely fabulous, was that he took it from a "bing o' eththers" which were busy making it, at the fort of Knocktintal; that he galloped with it in his hand, and the adders in pursuit, across the sands of Auchencairn Bay at half tide, and swam his horse through the tide to the island of Hestan, the adders being drowned when they got among the broken water. He wore it on a ribbon round his neck as a talisman for luck, and used it for curing "backgaun weans," "elfshot kye," and "sick beass" generally, and for averting the effects of the evil eye. It had to be dipped three times in water, which was given to the sick child or animal to drink. I don't remember if any words were said. Old Carnochan lost it one Sunday when digging for worms in his garden, and his luck left him, his cargoes were captured, his hiding-place betrayed, and he died in poverty." (Black, 1893, pp. 476-7)

This account clearly details how Carnochan wore the bead as an amulet for luck and to avert the evil eye. It also details certain cures it was believed to effect – these took place through particular ritual or administration, and thus not by amuletic effect. As noted above, snakestones, including snakestone beads were also used medicinally to treat various diseases. Thus, they occupy an interesting intersection, operating both as amulets and as therapeutic items. The loss of the snakestone bead was directly linked to Carnochan's dramatic reversal in fortune.

Interestingly, Carnochan's snakestone bead was later found:

> "One of his grandchildren many years after found it in the garden, but the luck didn't return with it. It was tried to cure Jean Craig's cat, but the cat died, and so it was thought of no more use." (Black, 1893, pp. 476-7).

When experiments performed with the retrieved bead (attempts to cure a cat), proved fruitless, it was concluded that the luck had been permanently lost from

the charm. It is noteworthy that it was *this conclusion* – that the luck had been lost – which was reached, and not that the changing fortunes of Carnochan were attributable to other factors or that the cat required alternative treatment.

In addition to being amulets to accrue luck, snakestone beads were considered to have further magical properties: the ability to ward away evil influences, malevolent fairies and witches. In this respect, over time the specific folklore of the snakestone bead has become conflated with hagstones, which are perforated stones (Pymm, 2017b, 190-2).



Figure 4. Holed stone. Author's personal collection.

Holed stones – occasionally also called snakestones – would be hung about the house and stable to protect the residents and livestock respectively from being tormented by witches or other evil forces during the night (Figure 4). Accounts have described them as having been suspended from the canopy of a bed, strung up behind a door, and attached to a key (Balfour, 1904, p. 51; Brand, 1855, p. 279; Duffin, 2009, p. 62). There is even a story from Caithness, northern Scotland, which tells of a hagstone being tied between the horns of each cow to frighten away the fairies and ill luck (Lovett et al, 1905, pp. 334-7). This apotropaic ritual fortunately only needed to be completed once per quarter to be effective.

As noted above, glass snakestone beads were noted for their similarity to a rudimentary eye-shape and thus considered to have a magic or sympathetic connection to eyes and to sight. In addition to topical treatment, as noted above, they were occasionally said to grant magical 'sight' when looking through the hole in the centre:

> "From Mr Malcolm (?) Gillies, Lynee [of a clatch-nathrach (serpent-stone) used in Lewis]. There was a hole through its centre, and the person who had it, explained that visions of things that were not capable of being seen otherwise, were to be had by looking through this hole. The reciter did not see it in use, but heard that it was a good deal in demand for finding out the wrong doers, and for curing where witchcraft was suspected (Maclagan, 1893-1902, MML7859a.2 – MML7860)."

A modern reimagining of this lore can be found in the children's fantasy book series (2003-2009) and motion picture by the same name (2008), *The Spiderwick Chronicles* by Tony DiTerlizzi and Holly Black. In this work, the world of fairies is invisible to the protagonists until they look through a holed stone called the "seeing stone"; this magic stone, however, does not have any association with snakes. It is likely that the lack of proven repeatability of magic sight renders this an uncommon belief in holed stones, whereas 'luck' cannot be proved or disproved, therefore it is easier for the belief in snakestone beads as a lucky amulet to be perpetuated.

Ammonites

The third type of snakestone, ammonites, also have a reputation associated with magical insight or prophecy. Ammonites were ocean-dwelling cephalopods with a distinctive coiled shell comprised of gas-filled chambers, used for buoyancy. They existed during the Mesozoic Era, thus flourishing 252 to 66 million years ago. Modern finds of ammonite fossils are either preserved shells of calcite, or casts of a now dissolved shell, following infilling of the chambers with minerals from the surrounding sediment forming a steinkern.

Pliny the Elder wrote that *Hammonis cornu*, likely an ammonite, was "reckoned among the most sacred gems of Æthiopia; it is of a golden colour, like a ram's horn in shape, and ensures prophetic dreams, it is said" (Bostock & Riley, 1857, p. 451). The golden colour of Pliny's exemplar was caused by fossilization by pyritization, which gives the ammonites a metallic bronze or golden sheen (Figure 5). To examine further its supposed prophetic operation, Pliny uses *somnia*, indicating dreams occurring during sleep, rather than in the sense of hopes or aspirations (Detlefsen, 1866, p. 239). Similarly, van der



Figure 5. Pyrite ammonite. Author's personal collection.

Geer and Dermitzakis have noted that a coin from 480 BCE bears the inscription "The horn of Ammon which makes beautiful dreams" (van der Geer & Dermitzakis, 2008, p. 26), which also suggests dreams during slumber. However, in a passage which appears to draw strongly from Pliny, physician Camillus Leonardus (dates unknown, sixteenth century) poetically commented:

> "*Hammonis*, is a Stone of a gold Colour, and is numbered among the most sacred Gems. It has the shape of a Ram's Horn, and is found in *Ethiopia*. If a Man puts himself in a Posture of Contemplation, it gives the Mind a Representation of all divine Things." (Leonardus, 1750, p. 110)[2]

This provides a slightly different perspective, as it does not immediately suggest the dreams will occur during sleep, implying instead that they may come through meditation or deep thought.

The fourth-century lapidary poem *Lithica* by Psuedo-Orpheus may also refer to the ammonite. Halleux and Schamp have identified the described stone as haematite (Halleux and Schamp, 2023, p. 310; Fincher, 2024, 15, n. 77), and Kostov as meteoric iron (Kostov, 2008, p. 112). However, Duffin has suggested that the description may be of an ammonite (2005, p. 60):

> "Around its orb, both around it and on both sides, everywhere, tendons
> That are similar to wrinkles of skin stretch, etched in lines on the surface"
> (Fincher, 2024, 15, lines 364-5)[3]

Duffin's interpretation is especially compelling considering the ammonite already has a connection with prophecy, as detailed above, whereas iron and haematite do not.

Pseudo-Orpheus described a prolonged ritual the user had to perform in order for the stone to prophesy – the user must abstain from sex, public baths and certain foods for ten days, wash the rock in soft cloths and pamper it, make unspecified sacrifices and work unspecified powerful spells, then, in a bright and purified chamber hold it close, rocking it until they tire, at which point it will scream. The user must be careful not to drop the stone in alarm, as to do so would attract the rage of the gods. The user can then speak to it, and hear its prophecy, following which the stone's 'spirit' will depart (Fincher, 2024, p. 15, lines 366-87; King, 1860, pp. 456-7).

In the Americas, ammonites were components in sacred bundles and medicine pouches of the Blackfeet, Hopi and Crow Indian peoples (Mayor, 2005, pp. 228-9, 268-70). A bundle was "always tested for effectiveness, and the number of attachments and beads indicated its success in hunting, granting wishes, curing sickness, breeding horses, or protecting the owner" (Mayor 2005, p. 268). According to historian Adrienne Mayor, the details and the specific function of these pouches, however, are either jealously guarded or lost (Mayor, 2005, 137, 156, 169). Interestingly, a short note by Thomas Kehoe (1926 – 2008), archaeologist and authority on bison drives, published details of a Blackfoot legend regarding ammonites – known as *iniskim*, or 'buffalo stone' – which also attributes vocalisations to the ammonite, in a manner reminiscent of the Pseudo-Orpheus account:

> "Sometimes a man, who is riding along on the prairie, will hear a peculiar faint chirp, such as a little bird might utter. The sound he knows is made by a buffalo rock. He stops and searches on the ground for the rock … If it is found, there is great rejoicing.
> Blackfoot legend tells that the first *iniskim* revealed itself to a young woman gathering firewood near a famine-stricken camp. The little stone sang to her of its power in calling bison, and asked her to take it into the camp. She and her husband prepared a bison-calling ritual according to the instructions of the *iniskim*, and the band's famine was relieved. Since that mythical day, the *iniskim* has been treasured…" (Kehoe, 1965, p. 212).

Thus, ammonites were considered to have identified themselves to humans as sacred items through their vocalisations. They explained to the Blackfeet how to conduct a bison drive and subsequently were kept in sacred bags or pouches until the time came for their next use.

Ammonite fossils became popular items of jewellery, a fashion which continues to this day. When sold as jewellery, their aesthetic qualities are usually highlighted. However, a quick search on well-known internet search engines demonstrates that there is clearly still a market for ammonite amulets and talismans, and they are advertised as items which attract miracles, protection, long life, prosperity, and protect against negative energies and the evil eye.

Stones from the snake's head

For many centuries, certain species of snakes were believed naturally to generate a wonder-working stone inside their heads. Indian works of the fourth and fifth century AD ascribe to these stones the power to bring good fortune, wisdom, wealth, happiness, fame and good

[2] "Hamonis aurei coloris lapis existit, inter sacratissimas gemmas connumerat, cornu atietini effigiem habes. In Aethyopia reperitur. Cum in contemplation quis steterit, omnia diuina in'mente repraesentare facit." (Leonardi, 1533, p. 30).

[3] The wording is taken from Fincher 2024, an unpublished but publicly accessible work, which aims to provide an accurate translation, rather than the only published English translation by King (1860), who "given to rather flowery rhyming couplets, produced a 'rather too free' rendition" (Duffin, 2013, 12-13; Thorndike, 1923, p. 293).

health (Pymm 2017a, pp. 163-4). In the Islamic tradition, however, these snakestones were primarily used as amulets. Ninth century Iraqi alchemist Ibn-Washiyya stated that if they were tied about the upper-left arm or around the middle they would ward away snakes (Kuehn, 2011, pp. 180-1). Al-Biruni (973 – 1048) in his *Kitab al-Jawahir* credits them with amuletic power against the snakebite (Said, 1989, pp. 178-9). Thereafter, the European snakestone tradition diverges, and they were principally used as a topical treatment for snakebite – but nevertheless there were occasional reports of them being used as an amulet to ward away the danger of snakebite: John Ovington (1653 – 1731), English Chaplain with the British East India Company, recorded that in Surat, India, "for the security of themselves against the danger of these serpents, which are everywhere so common in India, carry always about them one of these [snake]stones, fixt to a golden chain, which hangs about their necks" (Ovington 1696, p. 263). It is not unequivocal that snakestones were worn as apotropaic amulets, as it may be possible that they were worn as a readily accessible first aid item. The attachment of them to a gold chain, however, suggests that they were valued, and thus more likely to be used as an amulet.



Figure 6. Pedra de Cobra, Royal Pharmaceutical Society, London. Author's own photograph.

These snakestones were unattractive compared with gemstones – surviving exemplars are small black and smooth and are most likely made of charred bone (Pymm 2020, p. 134) (Figure 6). However, the idea of a precious stone hidden in the head of a dangerous creature seemed to capture imaginations. I have argued elsewhere that extravagant tableware produced by the sixteenth and seventeenth century Miseroni dynasty of hardstone crafters included decorative snakes and dragons with gem-studded foreheads to both symbolise and invoke the believed alexipharmic power of snakestones, translating it into a protection against poisoning via foodstuffs served from the vessel (Pymm & Duffin, publication forthcoming). Creative decisions had to have been taken to communicate the imagery of the snakestone, in order to render it visible, and therefore comprehensible by the beholder.

Snakes with jewelled heads persisted as a design motif through subsequent centuries, but the specific association between the jewelled head and a snakestone was lost. Prince Albert (1819 – 1861) presented Queen Victoria (1819 – 1901) with an engagement ring in the shape of a snake, which he purportedly designed himself. The head of the serpent was adorned with rubies for the eyes, diamonds for the mouth, as well as a large emerald set at the centre (Kay & Storey, 2022, p. 20). Thereafter, the motif of a snake with a jewelled head entered the fashion of the period. Victorian fashion was heavily influenced by forms from the natural world, and natural products. Snakes with jewelled heads became a noteworthy motif, and feature on a number of extant pieces (Figures 7 & 8).



Figure 7. Snake Ring, 1850-1900. Victoria & Albert Museum, London. Accession number: 776-1902.



Figure 8. Snake necklace, 1835-1840. Victoria & Albert Museum, London. Accession number: M.58-1951.

In modern jewellery, snakes with jewelled heads continue to be a popular motif, but rather than being indicative of a particular design trend, they are one option amongst a huge range of possible styles. Two modern jewellery designers in particular continue to use a single gemstone on the head as part of the design element. Costume jewellery house Kenneth Jay Lane produced a line of 'reptile' jewellery, which includes a number of snake pieces – these snakes commonly have gemstone-bedecked heads. Towards the other end of the jewellery spectrum, luxury fashion house Bulgari has a 'Serpenti'

collection and, where gemstones are used, they are invariably placed atop the head of the serpent. The Bulgari website describes the collection as:

> "a captivating homage to the enigmatic serpenti. Embellished with ancient Greek and Roman mythology motifs, the collection speaks volumes about the wisdom, vitality, and allure of this beguiling creature. Each jewellery creation by Bulgari exudes a mesmerising charm that is sure to leave you entranced" (Bulgari website, Serpenti).

Surely it is not too much of a stretch to theorise that, although the amuletic function of the snake-head jewel is no longer overt, marketing statements such as these are designed to suggest to the potential purchaser that wisdom, vitality, allure and mesmerism will accrue to the wearer through association with the symbol. What would this be if not an amulet?

Conclusion

While accounts of topical therapeutic uses of snakestones are more numerous, there is a significant body of sources which describe the use of snakestones as amulets. There is some element of cross-over between the different types of snakestone and their purported amuletic function – this is likely as both a consequence of and a reflection of the confusion that often existed between different items given the same name of 'snakestone'.

The use of *ophites* as an apotropaic or alexipharmic amulet is best understood as an expression of therapeutic similitude, *similia similibus curentur*, or the "like cures like" theory. Because the *ophites* snakestone resembles the skin of a snake, it is believed to have a particular affinity to protect against attacks or poisoning by snakes. The theorised ability to restore balanced humors is, however, outside the parameters of therapeutic similitude. Snakestone beads, shaped like a rudimentary eye, were also believed to operate sympathetically on ocular ailments. Their use as protective amulets for children could be said to be an extension of belief in their therapeutic use for childbirth (Pymm, 2017b, p. 183), in the hope that their supposed protection could extend beyond the birthing process. The belief in snakestone beads as lucky may have stemmed from the relative scarcity and good fortune in initial discovery of a bead – as this would have been a lucky happenstance, it can be theorised that the bead itself was a lucky charm, and this could then have developed into belief in a power to ward bad luck or evil influences away from the bearer. A different magical quality was ascribed to ammonites – the ability to inspire dreams or revelations, and the ability to vocalise prophecy. Whilst there are few references to this, it is an intriguing and interesting attribution. The underlying explanation as to why the ammonite may be associated with such magical abilities is unclear. Stones from a snakes head were, like *ophites*, believed to operate on by therapeutic similitude. They have the unusual distinction, however, of persisting into modern fashion as a design motif and, it can be argued, their amuletic lore being reinvented in the modern day.

References

Adderley, N. (2012). Scarabs: appeals for protection and resurrection. https://www.researchgate.net/publication/281283851_Scarabs_Appeals_for_Protection_and_Resurrection.

Balfour, M.C. (1904). *County Folklore Vol. IV: Northumberland*. Nutt.

Bianco, L. (1992). *Le pietre mirabilia*. Sella editore Palermo.

Black, G. F. (1893). Scottish charms and amulets. *Proceedings of the Society of Antiquaries of Scotland, 27*, 433-526. https://doi.org/10.9750/PSAS.027.433.526

Bostock, J. & Riley, H. T. (1857). *The Natural History of Pliny, Volume VI*. Henry G. Bohn.

Brand, J. (1855) *Observations on the Popular Antiquities of Great Britain Chiefly Illustrating the Origin of Our Vulgar and Provincial Customs, Ceremonies and Superstitions*. Volume 3. George Bell & Sons.

Bulgari. Serpenti. https://www.bulgari.com/en-gb/jewellery/serpenti (accessed 7 June 2025).

Bynum, B. (2000). Phrenitis: what's in a name? *The Lancet*, 356:9245, 1936. https://doi.org/10.1016/S0140-6736(05)73492-9.

Detlefsen, D. (1866). *C. Plinii Secundi, Naturalis Historia, Vol. V*. Berolini.

Duffin, C.J. (2005). The western lapidary tradition in early geological literature: medicinal and magical minerals. Geology Today, 21:2, 58-63.

Duffin, C.J. (2009). Herbert Toms and the Geological Folklore of Sussex. *What on earth is under Sussex: a series of essays exploring the history of geology in Sussex. Journal of West Sussex History, 77*, 57-64.

Duffin, C.J. (2011). Herbert Toms (1874-1940), Witch Stones, and Porosphaera Beads. *Folklore, 122*, 84-101.

Duffin, C.J. (2013). Lithotherapeutical research sources from antiquity to the mid-eighteenth century. *A History of Geology and Medicine. Geological Society, London, Special Publications, 375*, 7-43. http://dx.doi.org/10.1144/SP375.25

Fincher, J. (2024). A New Translation of the Orphic Lithica with Notes. https://www.academia.edu/122292409/A_New_English_Translation_of_the_Orphic_Lithica_with_Notes.

Gunther, R.T. (1968). *The Greek Herbal of Dioscorides*. Facsimile of the 1934 Edition. Hafner Publishing Company.

Halleux, R. & Schamp, J. (2023). *Les Lapidaires Grecs*. Les Belles Lettres.

Kay, F. & Storey, N.R. (2022). *Victorian Fashions for Women*. Pen & Sword History.

Kehoe, T. F. (1965). 'Buffalo Stones': an addendum to 'The Folklore of Fossils'. *Antiquity, 39(155)*, 212-213.

King, C. W. (1860). *Antique gems: their origin, uses, and value as interpreters of ancient history; and as illustrative of ancient art: with hints to gem collectors*. John Murray, Albemarle Street.

Kostov, R. (2008). Orphic Lithica as a source of late antiquity mineralogical knowledge. *Annual of the University of Mining and Geology "St. Ivan Rilski", 55:1*, 109-115.

Kuehn, S. (2011). *The Dragon in Medieval East Christian and Islamic Art*. Brill.

Leonardi, C. (1533). *Speculum lapidum clarissimi artium et medicinae*. Henricus Siliceus.

Leonardus, C. (1750). *The Mirror of Stones: in which the Nature, Generation, Properties, Virtues and various Species of more than 200 different Jewels, precious and rare stones are distinctly described*. J. Freeman in Fleet-street.

Lovett, E., Barry, F., Frazer, J.G., & Webb, F.N. (1905). 'Veterinary Leechcraft'. *Folklore, 16,* 334-337.

Maclagan, R. (1893-1902). Maclagan Manuscripts. School of Scottish Studies Archive, University of Edinburgh.

Mayor, A. (2005). *Fossil legends of the first Americans*. Princeton University Press.

Ovington, J. (1969). *A Voyage to Suratt*. Jacon Tonson.

Paton, J. (1890). *Scottish National Memorials: a record of the historical and archaeological collection in the Bishop's Castle, Glasgow, 1888*. J. MacLehose and Sons.

Pennant, T. (1769). *British Zoology, Volume 3*. Eliz. Adams, for Benjamin White, at Horace's Head, Fleet-Street, London.

Pymm, R. (2017a). 'Serpent stones': myth and medical application. *Geological Society, London, Special Publications, 452(1)*, 163-180. https://doi.org/10.1144/SP452.1

Pymm R. (2017b). 'A charm to impose on the vulgar': the medicinal and magical applications of the snakestone bead within the British Isles'. *Geological Society, London, Special Publications, 452(1)*, 181-194. https://doi.org/10.1144/sp452.13

Pymm, R. (2018). Snakestone Bead Folklore. *Folklore 129:4*, 397-419.

Pymm, R. (2020). Snakestones in early modern medicine and society. *Pharmaceutical Historian 50:4*, 129-145.

Pymm, R. & Duffin, C.J. (publication forthcoming). Snakes on the brain: alexipharmic tableware by the Miseroni.

Said, H.M. (ed.) (1989). *Al-Beruni's Book on Mineralogy: the book most comprehensive in knowledge on precious stones*. Pakistan Hijra Council.

Seyfarth, C. (1913). *Uberglaube und Zauberei in der Volksmedizin Sachsens*. Berlag von Wilhelm Heims.

Thorndike, L. (1923). *A History of Magic and Experimental Science, vol. 1*. Columbia University Press.

Ure, D. (1793). *A History of Rutherglen and East Kilbride*. David Niven.

Van der Geer, A. & Dermitzakis, M. (2008). 'Fossils in pharmacy: from "snake eggs" to "Saint's bones"; an overview'. *Hellenic Journal of Geosciences, 45*, 323-332.

FEMALE AMULETS OF THE KOBAN CULTURE

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Summary
The Koban culture is one of the most prominent cultural phenomena in the Caucasus region. The sites of the Koban culture of the Early Iron Age (900-700 BC) are located in the Central and Northern Caucasus. Their material culture includes a representative collection of various amulets that formed part of the funerary inventory. This category of artefacts is closely related to the social-historical context in which they occur and derive their meaning through interaction with the appropriate cultural environment. A gender-age analysis of the Koban interments with amulets shows that children's burials were accompanied by pendants made from animal bones and teeth. In contrast, single bronze amulets were more prevalent in male burials. However, the most numerous and diverse objects with amuletic value in Koban culture were found to be associated with female burials. These magical items consist primarily of bronze zoomorphic pendants, pellet bells, numerous beads made from different stones and metals, cowrie shells, etc. The appeal of these amulets derived from the belief that they possessed the power to protect and heal those who carried them. This was due to their shape, symbolic or religious associations, and material composition. Necklaces consisting of several bronze amulets with different functions were a distinguishing attribute of some female burials. The presence of gold and silver jewellery in the deceased women's possession further attests to their high social status. The available data demonstrate the leading role of women in the ritual life of the Koban culture, as well as their performance of priestly and healing functions, including those related to childbearing. The large number and significant diversity of Koban amulets is a notable feature in the context of Early Iron Age Western Eurasian cultures, where such variability is not commonly observed. This phenomenon existed because Koban society had reached a sufficiently high level of development, characterized by experienced religious, medical and cult practices. The advanced expertise and technical proficiency of Koban craftsmen should also be emphasized, as they were able to create highly artistic bronze artefacts, including those related to the ritual sphere. The presence of active cultural contacts with neighbouring and more distant territories (South Caucasus, the Near East, etc.) was also important. This enabled the population of the Koban culture to acquire new and exotic types of amulets (e.g. cowrie shells, pellet bells), as well as knowledge of their use.

Keywords: Central and Northern Caucasus, Koban culture, 900-700 BC, female amulets.

Introduction

Amulets are a universal phenomenon, with a wide variety of forms in existence. They are grounded in the social and historical context in which they occur, deriving their meaning and efficacy through interaction with their cultural environment. This approach emphasises that amulets are integrated into religious, medical, and mystical practices, as well as a behavioural continuum, with the common background being the function of obtaining aid from the divine to maintain well-being. By acknowledging this function within specific historical, social, and cultural contexts, amulets can be seen as the dynamic objects they are: transmitters of knowledge and power that transform as they pass from one environment to another.

Our article is devoted to the study of amulets discovered in female burials of the Koban culture located in the Central and Northern Caucasus. This culture of the Late Bronze-Early Iron Age is dated to around 1200-400 BC (Kozenkova, 1996; Reinhold, 2007). However, the focus of our study is on Early Iron Age sites, which are associated with dates of 900-700 BC. A representative collection of various amulets has been discovered in burial grounds from this period. The category of artefacts in question is represented by the magical-apotropaic objects that accompanied burials at Tli (Tekhov, 1980; 1985; 2002) and Styrfaz (Tekhov, 2000) in South Ossetia, Koban and Elkhotovo in North Ossetia (Chshiev, 2017; Makhortykh et. al., 2024; 2025), Belorechensky 2 and Klin Yar 3 in the Kislovodsk region (Dudarev, 2004; Belinsky & Dudarev, 2015), Zayukovo 3 in Kabardino-Balkaria (Kadieva & Demidenko, 2020), and Tereze (Kozenkova, 2004) in Karachay-Cherkessia (fig. 1). A total of approximately 1,000 funeral assemblages has been analysed.



Figure 1. Map of Koban culture sites mentioned in the text: 1 – Tli; 2 – Styrfaz; 3 – Koban; 4 – Tsamad; 5 – Elkhotovo; 6 – Nalchik; 7 – Zayukovo 3; 8 – Tereze; 9 – Belorechensky 2; 10 – Berezovsky, 11 – Klin Yar 3; 12 – Lermontov Rock.

A substantial number of the burials contain sex and age markers, enabling us to assess the gender and age characteristics of the amulet sets. Our previous paper discussed talismans related to male interments in Koban culture (Kotova & Makhortykh, 2025). The present contribution aims to define different types of women's amulets, describe their regional specifics and suggest their function in the Koban society. The typological analysis of the amulets was carried out using the 'Drag"n Drop' computer program integrated with the Montelius database (Stadler, 2014). We also used the cartographic method to study the geospatial distribution of the analysed objects. The characterization of the Koban culture's amulets was greatly facilitated by Caucasian ethnography (Chursin, 1929; Gadzhiev, 1991) which proved to be of great assistance in identifying a set of Koban magical-guarding artefacts and determining their purpose.

A variety of amulets have been identified in tombs located in the mountainous Central Caucasus. This region has had a stable population since at least the Late Bronze Age. It was barely affected by migrations during the Iron Age and medieval periods. Even the adoption of Islam and Christianity did not prevent the preservation of a significant number of earlier cultural elements, including the numerous amulets.

Amulets are defined as small objects that are worn by people to achieve a desired magical effect. They were classified into four principal categories: amulets made of animal teeth and bones, bronze pendants, cowrie shells, and beads of various other materials.

Amulets of animal teeth and bones

This type of amulet is rare in the monuments of the Koban culture and is mainly connected with burials of children and women. The most common among them are astragali of small cattle, which often have holes to aid hanging (fig. 2, 1). They were found in nine child burials: at Tli, in grave 9 of the Koban cemetery, and in tomb 2 at Tereze. Burial 9 of Koban was the only one that belonged to a woman (Chantre, 1886; Bedianashvili & Bodet, 2010).

Four burials in the Elkhotovo cemetery contained pendants made from drilled teeth, presumably from a dog or fox (fig. 2, 3). Burial 55 is believed to be that of a woman; the others belonged to children (Chshiev, 2017). Perforated deer teeth (fig. 2, 2) formed part of the grave goods in the female burial 1 at Tsamad cemetery. They were also presented in children's burials of the Koban necropolis.

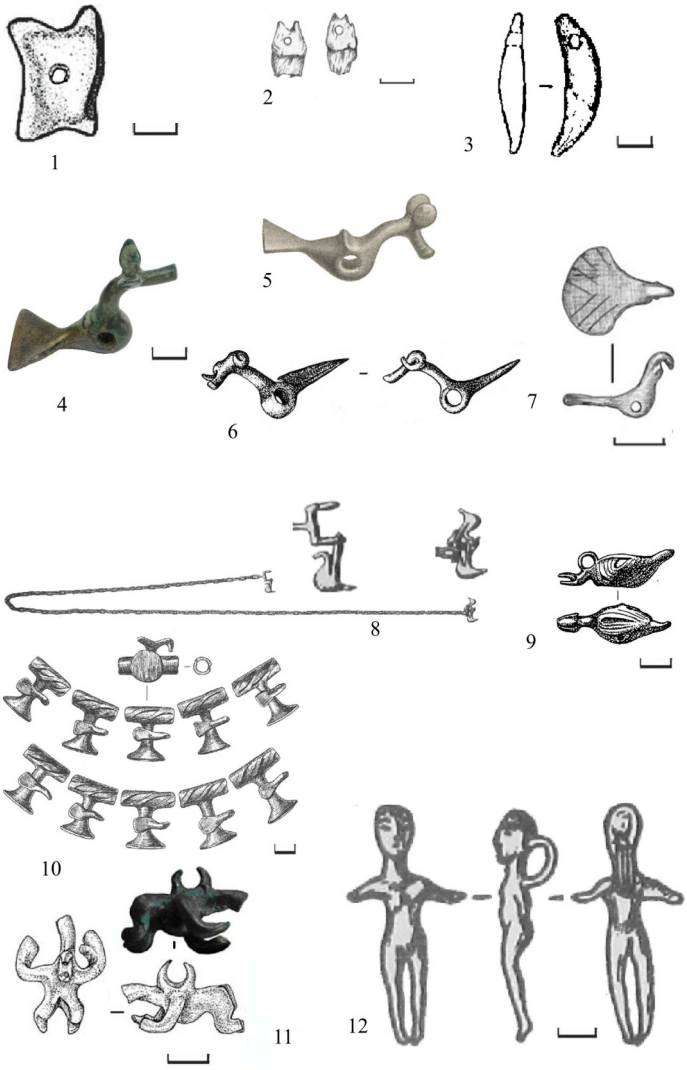

Figure 2. Amulets of the Koban culture: 1 – Koban, grave 9 (after Bedianashvili & Bodet 2010); 2, 7 – Tsamad, grave 1 (after Shestopalova 2018); 3 – Elkhotovo, grave 62 (after Chshiev 2017); 4 – Koban, grave 4 (1883) (after Makhortykh et al., 2025); 5 – Koban, grave 15 (after Chantre 1886); 6 – Nalchik (after Krupnov 1960); 8 – Tli, grave 208 (after Tekhov 1980); 9 – Lermontov Rock, burial 2 (after Berezin & Dudarev 1998); 10 – Tereze, tomb 3 (after Kozenkova 2004); 11 – Zayukovo 3, grave 24 (after Brileva et al., 2023); 12 – Tli, grave 244 (after Tekhov 1980). 1 – 3 – bone; 4 – 12 – bronze.

Bronze amulets

Bronze amulets were especially popular in the Koban culture. These artefacts are represented by figurines of various animals and birds, including fantastic ones, as well as pendants in the form of an axe, a cross, etc.

a) Bird-shaped pendants are divided into several groups.

The figurines of the first group were the most prevalent. They are represented by pendants in the form of fantastic birds. These have a stretched muzzle, long neck, pointed or rounded ears, and flat, triangular tail (fig. 2, 4-6). There is a round hole in the centre of the torso. Woollen threads are preserved in some of them (Tekhov, 1977, p. 166). These pendants have been discovered in seven burials of the Tli cemetery, four of which were female (graves 25a, 28, 480). Tomb 102 also belonged to a woman, but a bronze spearhead was found near the skeleton, and a bronze dagger lay next to the skull. This burial was accompanied by artefacts that are typically associated with women, including a bronze needle, anklets and bracelets. It can be hypothesised that this burial belonged to a female warrior (Amazon). However, the dagger's unusual position near the skull and the considerable distance between the skeleton and spearhead indicate that the weapon may be associated with a previous male interment that has since been destroyed.

Bird-shaped pendants of the first group were also found in four female burials of the Elkhotovo cemetery (graves 36, 51, 69, 77) (Chshiev, 2005). These objects are similar to figurines of fantastical birds from Tli. However, while only single figurines of "birds" were found in Tli tombs, in Elkhotovo each burial contains from two to six such items. The bird-shaped figures under discussion were included in necklaces together with cross-shaped and bispiral pendants, as well as the heads of other animals and cowrie shells.

The funeral complexes of the Koban cemetery with a female set of inventories also include figurines of fantastic birds, for example, tomb 15 (Ernest Chantre's collection), tombs 4 (1883), 34 (1883) (collection of the Vienna Natural History Museum), etc. (fig. 2, 4,5) (Chantre, 1886, fig. 6; Makhortykh et al., 2024, fig. 9, 7,8; Makhortykh et al., 2025). It should be noted that in Koban tomb 15 the woman's necklace was supplemented with two pendants in the form of a ram's head; in burial 34 with a figurine of a ram and pellet bell, and in burial 4 with two boar tusks and a pendant in the form of ram's head.

An investigation of the Zayukovo 3 cemetery in the Baksan Gorge revealed a female burial (148) accompanied by a necklace, which included two bronze figures of a fantastic bird, a pendant in the form of a deer and two pellet bells (Kadieva et al., 2020).

The northernmost discoveries of the discussed pendant (in the form of fantastical birds) are associated with a burial in Nalchik, grave 7 of the Industriya I cemetery and a set of finds from the vicinity of the furniture factory in Kislovodsk (Krupnov, 1960; Vinogradov & Dudarev,1983, fig.1, 14,16; Makhortykh et al., 2024). In the last two female burials, "bird" figurines were incorporated into necklaces together with bronze pendants of other types. These included a "claw" and pellet bell in Industriya, as well as two zoomorphic pendants at the Kislovodsk furniture factory site.

It should be noted that the "birds" in question often have the muzzle of an animal from a member of the family Canidae instead of a beak. Some specimens are also distinguished by the presence of horns (fig. 2, 6), suggesting a syncretic style combining the features of a ram and bird or a flying ram from Caucasian mythology (Tekhov, 1977, p. 167; Chshiev, 2005; Fomenko & Khokonova, 2018). These zoomorphic transformations serve as evidence for the cultic purpose of bird-shaped pendants. Valentina Kozenkova has attributed these pendants to type XVII of her classification. She has provided a date range for these pendants, placing them from the middle of the XIIth to the VIIth century BC (Kozenkova, 1998, p. 43). However, there is currently a lack of reliable, closed archaeological complexes with such "bird" figures dating earlier than the IXth century BC.

The bird-shape **figurines of the second group** are generally similar in shape to those from the first group. However, they differ in that they have no ear- or horn-like protrusions on the head. They also have a wide, fan-shaped tail decorated with lines that represent feathers. Such figurines were found in female burial 1 in the Tsamad cemetery (fig. 2, 7).

The third group includes a few amulets in the form of a bird with a large body, small curved head and a loop for hanging on the back. The artefacts have been discovered in tomb 208 of the Tli necropolis, where they were attached to a bronze chain (fig. 2, 8). This paired female and male burial from Tli is characterised by numerous bird images, which also feature on the bronze pin and belt.

The bird-like amulets of the **fourth group** are represented by two pendants in the form of "ducks". These have an open beak, a corrugated body and a loop for hanging (fig. 2, 9). They were found in female burial 2 in the cemetery near the Lermontov Rock together with a clay spinner, bronze pins and temple rings.

The fifth group comprises small, stylised bird sculptures that resemble ducks (fig. 2, 10). They were part of a necklace and were used to decorate bronze cast piercings. The necklace was found in a double burial of a man and a woman, aged about 60 and 40 respectively, in tomb 3 of the Terese cemetery (Kozenkova, 2004). The necklace was discovered near the feet of a male skeleton, but it was clearly of female ownership, as male burials were typically characterised by single pendants rather than necklaces (Kotova & Makhortykh, 2025).

b) Quadruped-animal-shaped amulets

The **bull and cow figurines** are currently known, found in female burials of the Tli necropolis (Tekhov, 1980). In tomb 102, it was part of a necklace that contained other bronze artefacts, including a fantastical bird, a coil-shaped pendant, and an iron oval medallion.

In burial 75, a figure of a cow with short horns was unearthed alongside 30 beads (fig. 3, 3).

More numerous were **horse figurines** (fig. 3, 5), found in five burials of the Tli cemetery (graves 99, 105, 214, 244, 361) (Makhortykh & Kotova, 2024). One such pendant was unearthed in four burials, and two pendants of different types were found in burial 244. Two additional horse figurines were discovered incidentally within the Tli cemetery. Bagrat Tekhov did not provide any information regarding their location (Tekhov, 1977, fig.115, 12,13). The skeletons in tombs 99, 105, 244 and 361 were identified as belonging to women (Tekhov, 1980; 2002). Typical female funeral complex beads were found in tomb 214, which contained none of the usual male burial items of weaponry (Tekhov, 1980). One pendant with a loop from tomb 244 depicts the front parts of two horses (protomes), facing in opposite directions (fig. 3, 4). Horse-shaped pendants found in graves 99, 105 and 244 were components of necklaces containing other bronze amulets. In tombs 214 and 361, one such pendant was found together with various beads.

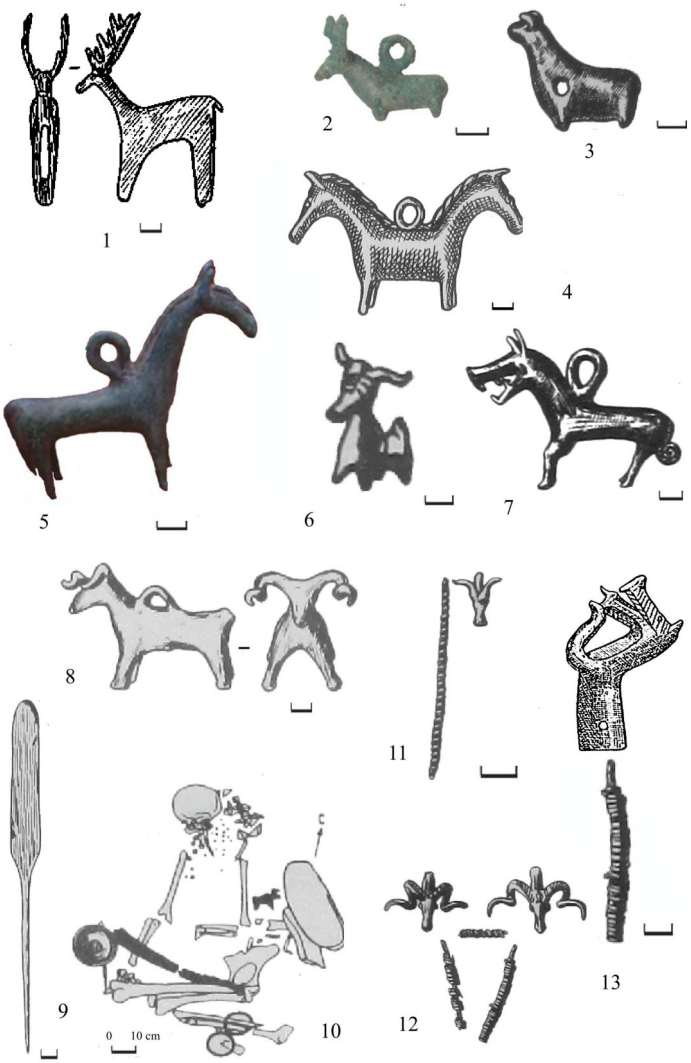

Figure 3. Bronze amulets of the Koban culture: 1 – Tli, grave 349 (after Tekhov 2002); 2 –Zayukovo 3, grave 148 (after Kadieva et. al., 2020); 3 – Tli, grave 75 (after Tekhov 1980); 4 – Tli, grave 244 (after Tekhov 1980); 5, 6 – Tli, grave 99 (after Tekhov 1980); 7, 12, 13 – Tli, grave 217 (after Tekhov 1980); 8 – 10, Tli, grave 125 (after Tekhov 1980); 11– Tli, grave 105 (after Tekhov 1980).

Rams were unearthed in seven female burials of the Tli necropolis (graves 125, 235, 256, 335, 393, 415 and 421) (Tekhov, 1980; 2002). Bronze belts with buckles and numerous beads, which decorated headdresses and formed necklaces, were also found in all these burials. It should be noted that ram figurines were quite large and not accompanied by other zoomorphic items (fig. 3, 8). In female burial 34 (1883) of the Koban necropolis, a small ram figurine was found to be part of a necklace that also included bird-shaped pendants and a pellet bell (Makhortykh et al., 2024, fig. 9).

Currently, only three **goat-shaped figurines** are known. One of these was found in female burial 99 of Tli, where it was part of a necklace together with horse and deer figurines (fig. 3, 6). Two other such pendants accompanied the burials of men (Kotova & Makhortykh, 2025).

The presence of **dog-shaped pendants** is documented in four burials of Tli (graves 80, 82, 88a, 217) (Tekhov, 1980). Burial 80, where the poorly preserved skeleton lacks sex determination as well as gendered inventory, was accompanied by seven beads, a temporal attachment and a tube. It most likely belonged to a woman. Burial 82 contained the remains of a man and a woman, as well as an inventory typical of both genders (jewellery and weapons). A female skeleton (grave 88a) was accompanied by leg rings, temple pendants, a dog figurine and 31 beads. In female burial 217, a dog figurine (fig. 3, 7) was included in a set of bronze zoomorphic pendants along with 496 beads. In addition, a dog's head was discovered, fixed to a wooden stick that had been wrapped with a bronze spiral (fig. 3, 13).

Quite numerous are **deer figurines.** Six such pendants were discovered in the burials of the Tli cemetery. Three of them originate from the destroyed burials 39 and 130, which contained items of male and female inventory. Two female burials (graves 349, 372) contained single pendants (fig. 3, 1). In female tomb 99, a deer figurine was included in a set of zoomorphic amulets. A deer-shaped pendant with short legs and a loop for hanging was unearthed in the female burial 148 of the Zayukovo 3 cemetery (fig. 3, 2).

c) Animal-head-shaped pendants

Bull's heads were found in four burials at Tli: one female (grave 346), one male (grave 418), one child (grave 398), and one destroyed burial with female and male grave goods (grave 56) (fig. 4, 9). An original pendant in the form of a bull's head was also discovered in female burial 69 of the Elkhotovo cemetery, alongside other zoomorphic figurines (fig. 4, 8). Bell-shaped pendants were attached to its base (Chshiev, 2017).

Goat's heads were found in graves 23 and 105 of the Tli necropolis, as well as in grave 4 of the Belorechensky 2 cemetery together with a cross-shaped pendant and other zoomorphic amulets (fig. 4, 7). It should be noted that a goat's head pendant from the Tli female burial 105

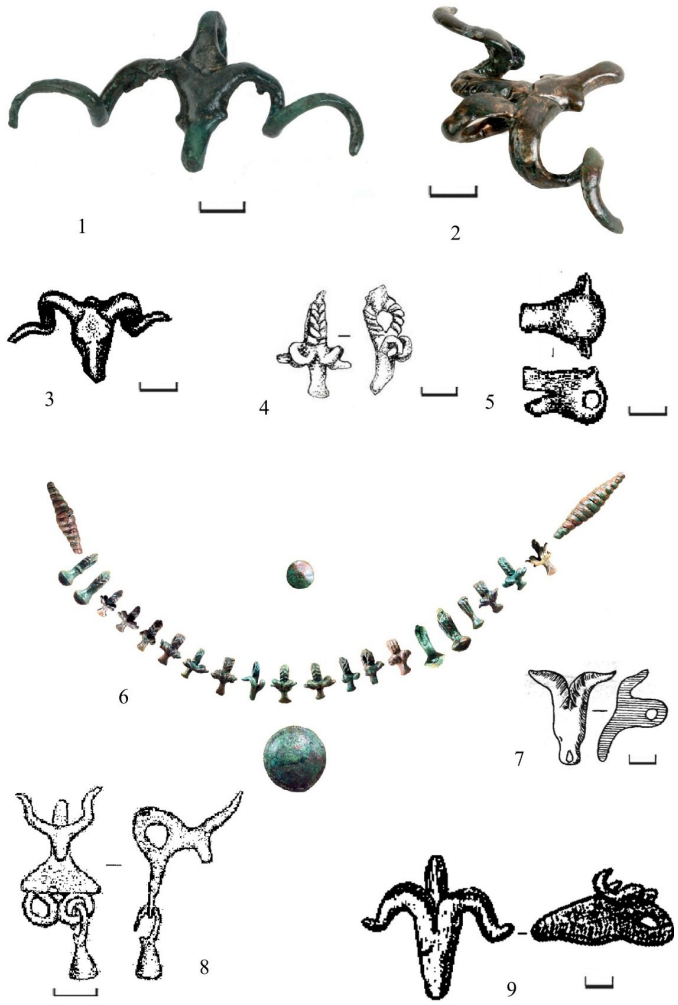

Figure 4. Bronze amulets of the Koban culture: 1 – Koban, grave 4 (1883) (after Makhortykh et al., 2025); 2 – Koban, grave 25 (after Makhortykh et al., 2025); 3 – Elkhotovo, grave 68 (after Chshiev 2017); 4 – Zayukovo 3, grave 24 (after Brileva et al., 2023); 5 – Elkhotovo, grave 36 (after Chshiev 2017); 6 – Zayukovo 3, grave 33 (after Kadieva & Demidenko (2020); 7 – Belorechensky 2, grave 4 (after Dudarev 2004); 8 – Elkhotovo, grave 69 (after Chshiev 2017); 9 – Tli, grave 346 (after Tekhov 2002).

was attached to a wooden stick wrapped with a bronze spiral (fig. 3, 11).

Ram's heads are most numerous in the burials of the Koban culture. They are represented by two main types. The first type includes pendants with realistically elaborated animal heads (fig. 4, 1,2). Such pendants were found in the burials of the Tli necropolis. A single pendant was unearthed in female burials 17, 86a and 283. In contrast, four pendants were discovered in burials 105 and 217 (fig. 3, 12). Two pendants were found in female burials 23a and 148, as well as in destroyed burial 341, which contained female and male remains. Two pendants in the form of a ram's head were also found in female burial 2 of cromlech 5 at Styrfaz, together with bronze pins decorated with the image of horns (Tekhov, 2000).

Ram's heads were discovered in female burials of the Koban necropolis: tombs 9,13,15 (Ernest Chantre's excavation) and tombs 3 (1883), 4 (1883), 6 (1883), 7 (1883), 10 (1883), 32(1883) (Natural History Museum Vienna) (Chantre 1886, figs. 2; 6; Makhortykh et al., 2025). A pendant in the form of a ram's head was unearthed in female burial 68 of the Elkhotovo cemetery (fig. 4, 3).

The second type of pendants under consideration is represented by schematic ram's head with an ornamented loop in the form of a "braid". Such artefacts were found in female burials 24, 25 and 33 of the Zayukovo 3 cemetery (fig. 4, 4). They were part of necklaces that also included drop-shaped and other bronze pendants (fig. 4, 6).

A dog's head with a hole for suspension was found in female burial 36 at the Elkhotovo cemetery (fig. 4, 5).

d) Pendants in the form of a human figure

They were found in two female burials: tomb 244 of the Tli necropolis and tomb 24 of the Zayukovo cemetery (fig. 2, 12). A pregnant woman is depicted at Zayukovo (fig. 2, 11).

e) Miscellaneous bronze amulets

Cross-shaped pendants are also a special type of amulet. They are represented by two groups: pendants with spherical (1) and trapezoidal (2) ends. Pendants of the first group were found in three female burials of the Tli (graves 158a, 334, 480) and in female burial 69 of the Elkhotovo (fig. 5, 6). These pendants were typically incorporated into necklaces, often accompanied by other bronze amulets or beads. A cross-shaped pendant in the form of a small mace was discovered in the chest area of the female skeleton in tomb 3 at Tereze (fig. 5, 7). The remains of a wooden handle have been found within its central opening. This burial was accompanied by beads, a gold temple pendant and pins with antimony inlay (Kozenkova, 2004, p. 78).

Pendants of the second group, with trapezoidal ends, are more prevalent in female burials (fig. 5, 8). These artefacts were discovered in graves 23 and 98 of the Tli, graves 36 and 77 of the Elkhotovo, as well as grave 332 of the Klin Yar 3 and grave 1 of the Zayukovo burial ground. A cross-shaped pendant was found together with a pendant in the form of a goat's head in grave 4 of the Belorechensky 2 cemetery.

Pellet bells have been discovered in female burials in cemeteries as Koban (graves 34 (1883), 35 (1883) 5 (1884), Zayukovo 3 (grave 148) and Industriya 1 (grave 7) (fig. 5, 4,5) (Makhortykh et al., 2024). They were usually accompanied by other amulets. Grave 148 of Zayukovo 3 is a good example of this (Kadieva et.al., 2020). The Koban site also contains pellet bells attached to a bronze chain (fig. 5, 10).

Bell-shaped pendants were presented in two female burials at Tli (Tekhov, 1985). In grave 96, a pendant was found in the chest area, while in grave 253, it was discovered at the end of the bronze belt (fig. 5, 2). The original pellet bell or bell-shaped pendant was also unearthed in female grave 451 of the Tli cemetery (fig. 5: 3).



Figure 5. Bronze amulets of the Koban culture: 1 - Zayukovo 3, grave 148 (after Kadieva et al., 2020); 2 – Tli, grave 253 (after Tekhov 1985); 3 – Tli, grave 451 (after Tekhov 2002); 4 – Koban, grave 5 (1884) (after Makhortykh et al., 2024); 5 – Industriya 1, grave 7 (after Reinhold 2007); 6 – Tli, grave 158a (after Tekhov 1980); 7 – Tereze, tomb 3 (after Kozenkova 2004); 8 – Klin Yar 3, grave 332 (after Belinsky & Dudarev 2015); 9 - KlinYar 3, grave 182 (after Belinsky & Dudarev 2015); 10 – Koban (after Chantre 1886); 11 – Styrfaz, cromlech 11 grave 3 (after Tekhov 2000); 12 – Styrfaz, cromlech 10 grave 11 (after Tekhov 2000).

Bronze **pendants in the form of a "fang"** were found in female burial 148 of Zayukovo 3 cemetery as well as in tombs 1 and 2 of the Tereze (fig. 5, 1). **Bronze hammer-shaped pendants** were discovered in female (11) and two male burials (8 and 9) from cromlech 10 at Styrfaz (fig. 5, 12). These amulets were probably used by a single family which was buried in cromlech 10.

Pendants in the form of a miniature axe are known from two burials: grave 37 of Elkhotovo and grave 3 of cromlech 11 of the Styrfaz cemetery (fig. 5, 11).

Wheel-shaped pendants exhibiting a combination of a circle and a cross were discovered in two female burials (182 and 242) of the Klin Yar 3 cemetery (fig. 5, 9).

Cowrie shells were a more common feature in burials of women and girls in the Koban culture. Perhaps these shells were incorporated into female amulets because of their resemblance to female genitalia. They were primarily used to guard against sterility and ensure fertility**.** In the context of male burials of the Koban culture, cowrie shells are not typically present. In certain cases, single samples appear to have been placed in the grave by a female family member (Kotova & Makhortykh, 2025).

In the Koban culture, female burials frequently contained **beads made from various materials** (Tables 1; 2).

	Belorechensky 2	Klin Yar 3	Elkhotovo	Styrfaz	Tli
Amulet of beads	7 – 70%	52 –83%	-	5 – 45%	58 – 44%
Bronze amulets with beads	-	2 – 3%	-	2 - 18%	31 – 23%
Bronze or bone amulets with beads and cowrie	-	-	7 – 30%	-	2 – 2%
Cowrie with beads	-	5 – 8%	12 – 52%	-	11 – 8%
Bronze or bone amulets without beads	1 – 10%	1 – 2%	1 – 4%	1 – 9%	6 – 5%
Cowrie without beads	-	-	1 – 4%	-	1 – 1%
Total number of female burials	**10**	**63**	**23**	**11**	**132**

Table 1. Distribution of amulets in female burials of the Koban culture

For instance, 70-90% of female skeletons in the Kislovodsk region (Belorechensky 2 and Klin Yar 3 cemeteries) were accompanied by beads. Beads were also identified in 60-82% of female graves in the Central Caucasus (Tli and Styrfaz) and in the foothills of the Northern Caucasus (Elkhotovo). In the Elkhotovo, Styrfaz and Tli burial grounds, from 18% to 30% of women's necklaces contained, in addition to beads, other bronze amulets. The latter were rare in the sites of the Kislovodsk region and were not combined with beads.

The use of beads in female and male Koban culture burials is an interesting topic for comparison. The Kislovodsk region is characterised by the dominance of female burials accompanied by beads (Belorechensky 2 and Klin Yar 3). In contrast, beads were either absent (Belorechensky 2 and Berezovsky), or present in only 5% (Klin Yar 3) of male burials in this region (Kotova & Makhortykh, 2025).

Beads	Belore-chensky 2	Klin Yar 3	Elkhotovo	Styrfaz	Tli
Bone	-	1 – 17%	-	-	-
Agat	-	-	-	-	1 – 1%
Gagat	-	3 – 5%	2 – 9%	-	5 – 5%
Amber	-	2 – 3%	-	-	15 – 15%
Limestone	-	8 – 14%	-	-	-
Talc	-	-	-	-	11 – 11%
Calcite	-	-	-	1 – 14%	15 – 15%
Carneol	6 – 67%	43 – 73%	8 – 35%	7 – 100%	70 – 70%
Bronze	4 – 44%	20 – 34%	16-70%	2 - 29%	7 – 7%
Antimony	-	6-10%	11-48%	-	1 – 1%
Gold foil	-	-	-	-	29-28%
Faience	4 - 44%	16 – 27%	-	1 – 14%	26 – 26%
Glass	2 – 20%	29 – 49%	9 – 39%	-	21 – 21%
Biser of glass or paste	3 – 33%	38 – 64%	7 – 30%	-	1 – 1%
Clay	-	2 – 3%	-	-	-
Unknown	-	2 – 3%	-	-	13 – 13%
Total number of female burials with beads	**7**	**59**	**19**	**7**	**102**

Table 2. Distribution of beads in female burials of the Koban culture

In the Elkhotovo cemetery, the proportion of female burials accompanied by beads (82%) is higher than the proportion of male burials with these amulets (54%) (Kotova & Makhortykh, 2025). A particularly significant

disparity is evident in burials involving both beads and bronze amulets. The distribution of these burials is as follows: 30% of female burials and 7% of male burials.

In the Tli necropolis (South Ossetia), the percentage of female burials accompanied by beads (67%) slightly exceeded the percentage of bead-containing male burials (42%). However, as in Elkhotovo, women were more often buried with combinations of beads and bronze amulets (23% of female burials compared to 2% of male burials).

An alternative perspective is presented by the Styrfaz cemetery, which is also located in South Ossetia. Its burials were carried out inside cromlechs and were characterised by richness of inventory. The percentage of male burials of Styrfaz with beads (42%) is approximately equal to the number of female burials (45%), as is the percentage of male (25%) and female burials (18%) with beads and bronze amulets.

The cemeteries with the largest number of investigated female burials with beads (Tli - 102 graves and Klin Yar 3 - 59 graves) demonstrate the greatest variety of materials from which they were made. Beads produced of bone, jet, amber, limestone, carnelian, bronze, antimony, clay, faience and glass have been identified in Klin Yar 3 (Table 2). In addition to these types of material, beads made of agate, talc, and calcite have been found in Tli. It should be noted that terracotta beads covered with gold foil are represented only in this burial ground.

The prevalence of carnelian beads (67-100% of female burials with beads) is documented for all the aforementioned cemeteries, with the exception of Elkhotovo. Bronze and/or faience (Styrfyz, Belorechensky 2), calcite (Tli), and glass beads (Klin Yar 3) are the next most prevalent. The Elkhotovo cemetery shows that female burials with bronze beads are the most numerous (70%), followed by antimony beads (48%), glass (39%) and carnelian (35%) beads. In general, beads made of carnelian, bronze, calcite, glass and faience were the most widespread in the Koban culture. A narrowly localized distribution is a characteristic feature of beads made of calcite and talc, as well as those covered with gold foil (Central Caucasus), antimony and bone (Northern Caucasus). It is noteworthy that small glass and paste beads (biser) were more prevalent in the Northern Caucasus than in the mountainous regions of the Central Caucasus.

A comparison with the male burials of the Koban culture (Kotova & Makhortykh, 2025, Table. 1) reveals a similar distribution of beads by material, seemingly determined by regional traditions and the availability of particular raw resources. We note only a greater diversity in the materials used to make the beads, which is characteristic of female burials.

The purpose of female amulets

a) Amulets of the clan's patrons

Totem animals have been an important part of indigenous religions and traditions for thousands of years. Certain animals become linked to tribal groups and clans and are regarded as protectors, as divine mediators and as ancestors (Varber, 2008). One of the functions of Koban zoomorphic amulets, in the form of figures and animal heads, was to serve as totems of local communities (Kotova & Makhortykh, 2025). The most prevalent of these were the ram, dog, bird, etc. For example, in burial 23 of the Tli necropolis the remains of a man, a woman and a child were excavated. The woman had two amulets in the form of ram's heads, while the man and the child had pendants in the shape of goat's head, suggesting their possible belonging to two different clans. Probably, burials of members of the same family were located in specific areas of the Tli cemetery. Unfortunately, its general plan has not been published, but the numbers of graves excavated next to each other show a peculiar zoning. For example, in burials 80, 82, and 88a, pendants in the form of a dog were discovered, and in burials 346, 385, 398, and 418 - pendants with a bull's head were unearthed.

In addition to their role as magic charms of the clan's patrons, zoomorphic pendants also served other purposes. For example, the bull was a symbol of fertility, while the ram and its horns were used to ward off the evil eye (Gadzhiev, 1991). The peoples of the Northern Caucasus associated the goat with the idea of fecundity and regarded it as an indication of supernatural power (Gadzhiev, 1991, p. 101).

Amulets in the form of animal heads were not only necklace components; they were also attached to wooden sticks wrapped with bronze spirals (Tli, grave 105), which sometimes formed triangles (Tli, grave 217) (fig. 3, 11,12). It is likely that such constructions were similar to ritual sceptres.

b) Pellet bells and bell-shaped pendants

Pellet bells in different Caucasian cultures belong to the objects with magical meaning for various rituals. The symbolic functions of pellet bells are based on the ritual labelling of their "voice" - the ringing that contrasts with and replaces speech in certain situations (Makhortykh et al., 2024). The sounds they produced, both due to the elements inside them (pellets) and when the metal pendants collided with each other, were used to ward off evil forces and inauspicious phenomena. Pellet bells were also used during rituals of "transition" of which the funeral rite is one example. In ethnographic cases, the role of the "bells" was primarily determined by the sound they produced, which was perceived as a voice reaching the deity. Special studies have shown that in the Caucasus the pellet bells and bell-shaped pendants functioned mainly as objects whose semantics were connected with the upper world and astral representations (Pogrebova, 1984). Some of these objects were found in sanctuaries

such as Shilda (Maisuradze & Pantshava, 1984), emphasizing their connection with the cults and ritual practices of the local Caucasian population. Materials from the funerary complexes of the Koban culture show the association of pellet bells with female burials. Pellet bells also imitate vascular fruits and thus symbolise fertility, prosperity, long life and life after death. It is assumed that similar functions were typical for the bronze bell-shaped pendants from female burials of the Tli cemetery.

c) Protective and healing amulets

Bronze pendants in the form of miniature axes, cross-shaped tops of "maces", "fangs" and some additional objects can be considered as protective amulets.

Ethnographic data from the Caucasus region has documented the presence of amulets made from the perforated teeth of dogs, foxes and other animals. In Dagestan, a dog's tooth was sewn onto clothing for protection (Gadzhiev, 1991). In the Northern Caucasus, the fox incisor was considered to offer protection from the evil eye. The role of protective magic in this context was evidently associated with the fox's reputation as a cunning animal. It was believed that a fox bone possessed the same qualities as the animal itself, deceiving the evil eye and warding off harm from its owner.

Caucasian people believed that carnelian and agate beads had healing properties. It was thought that these beads were effective in treating swellings and wounds, and in facilitating smooth and uncomplicated childbirth (Chursin, 1929, p. 25). The utilisation of beads as a charm against the evil eye was also practiced. In the eastern parts of the Caucasus, amber beads were used as amulets against jaundice (Shilling, 2018).

Anthropomorphic pendants bearing female images could also be protective amulets connected with fertility, particularly the figure of a pregnant woman from Zayukovo 3.

d) Complex necklaces made of various amulets

In contrast to male talismans, which were typically used as single pendants, female magical-apotropaic objects were often incorporated into peculiar amulet assemblages.

According to ethnographic evidence, bead necklaces were used by the Caucasian population as complex amulets (Chursin, 1929). The women of the Kislovodsk region wore complex necklaces consisting of several types of beads made from various materials, which had certain functions, primarily healing. Of the region's interments which contain beads, only five (8% of all female burials) included cowrie shells as an additional measure to promote fertility, health, and abundance (Tables 1; 2).

The population of the Central Caucasus (Tli, Styrfaz and Koban cemeteries) wore diverse bronze amulets, the majority of which were talismans of the clan's patrons. Consequently, 18-30% of necklaces found in female burials included the bronze amulets in combination with beads (Table 1).

In addition to bronze amulets, cowrie shells were popular among the female population of the foothills of the Northern Caucasus (Elkhotovo), so their complex necklaces consisted of three components: beads, bronze amulets and cowrie shells. Cowrie shells and beads were used as components in the necklaces of Caucasian peoples until the beginning of the XXth century (Chursin, 1929).

Interpreting the social significance of female burials containing amulets

According to the available data, beads used by the population of the Koban culture in the Central Caucasus (Tli and Styrfaz) should be considered as age-related amulets (Kotova & Makhortykh, 2025). They accompanied from 60% to 77% of burials of females who died at fertile age in this region. The same pattern was observed in the Neolithic and Eneolithic burials in the steppes of Eastern Europe, where only women aged under 40 had beads (Kotova, 2008, p. 138; Kotova, 2013, p. 404). In the case of the Kislovodsk region, where beads were present in approximately 90% of female burials, it can be assumed that beads were used as a dominant type of amulet by women of various age groups.

Four female burials from the Tli necropolis containing bronze figurines of a ram (graves 125 and 256), a dog (grave 217) and a deer (grave 372) represent a distinct social group. They were accompanied by bronze spatulas with sharpened blades, which were typically stored in bronze bowls (fig.3, 9). Only one female burial lacking a zoomorphic pendant had such a spatula (grave 355). However, this burial was distinguished by a rich inventory including electrum temple pendants, leg rings, numerous beads, etc. Bagrat Tekhov has suggested that healers may have utilised bronze spatulas in their practices (Tekhov, 1977). There is a high probability that this group of female burials belonged to them.

A group of female burials including several different bronze amulets has been identified in the Central Caucasus and, less often, in the foothills of the Northern Caucasus. Such burials have been discovered in Tli, Zayukovo 3 (grave 148), and Elkhotovo (graves 51 and 77). As evidenced in Tli burial 105, the grave goods included four pendants in the form of a ram's head, a horse figurine, and a wooden stick wrapped with a bronze spiral, to which a pendant in the form of a goat's head was attached. This burial also contained 289 beads, gold temple pendants, a headdress decorated with a bronze plate bearing 43 bronze tubes, anklets and bracelets (Tekhov, 1980). In the female burial 217 at Tli the presence of a dog figure was noted among a collection of bronze zoomorphic pendants, accompanied by 496 beads and composite amulets crafted from wooden sticks adorned with bronze spirals and animal

head. Similar composition of the inventory and complex necklaces was also revealed in burials 99, 214 and 244 of the Tli. The grave goods of the above-mentioned burials reflect the special, most likely, priestly status of the deceased women. We support the assumption that numerous zoomorphic amulets are connected with the female servants of the lord of beasts cult, which is closely associated with fertility (Tekhov, 1977).

It is important to acknowledge the absence of figurines of rams and horses in the burials of men and children. The presence of horse figurines indicates the worship of the horse goddess and the horse cult, which were prominent in the Eastern Mediterranean world, particularly in Asia Minor and the Near East. In these regions, the horse is associated with childbearing, healing rituals and agrarian cults (Terzhan, 2012, p. 449). As posited by Alexander Moshinsky, the notion of a mistress of beasts was a prevalent concept among various Caucasian peoples. Furthermore, the representation of the mistress of beasts can be considered more archaic and traces its origins to the image of the goddess of fertility (Moshinsky, 1996).

It is conceivable that women who wore multiple zoomorphic pendants on their necklaces were priests in communities comprising several clans. The presence of various combinations of figurines, including deer, ram, bull, horse or bird, indicates the diverse clans present within the community in which this woman held the role of priest. Certain compositions have been identified in various contexts. For instance, at Tli, burials 105 and 217 feature horse, ram and goat heads, while burial 99 contains horse, deer and bull figures. At Zayukovo 3, burial 148 comprises bird and deer figures, and at Elkhotovo, burial 77 contains bird figures and a ram's head.

Conclusion

The Koban culture, which was centred in the Central and Northern Caucasus, is characterised by various female amulets made of metal, stone, animal teeth and shells. These magical objects consist primarily of zoomorphic bronze pendants in the shape of animal figurines (ram, deer, bird, etc.), or their separate parts (head or "fang"). Amulets in the form of “bells”, cross, hammer, along with cowrie shells and various beads, have also been documented. Despite the divergent designs and functions of these artefacts, they all served one purpose: to protect their owner from harm, misfortune, danger, disease and "evil spells". The most numerous and diverse objects with amuletic value were found precisely in female burials, and many of these artefacts (pellet bells, figurines of rams, horses, etc.) are not observed in male burials. Although these items belonged to one person, in some cases of a priestly status, the scope of their magical protective powers probably extended to benefit the entire community. This unequivocally demonstrates the leading role of women in the ritual sphere of the Koban culture, as well as their performance of priestly and healing functions, including those related to childbearing. The large number and significant diversity of Koban bronze amulets is a notable feature in the context of Early Iron Age Western Eurasian cultures, where such variability is not commonly observed. This was due to the fact that Koban society had reached a sufficiently high level of development, characterized by experienced religious, medical and cultic practices. In addition, the advanced expertise and technical proficiency of Koban craftsmen should be emphasized, given their ability to produce highly artistic bronze artefacts. Furthermore, cultural contact with both neighbouring and more distant territories was also found to be significant. This facilitated the adoption of new and exotic types of amulets by the population of the Koban culture, as well as the dissemination of knowledge regarding their utilisation. The abundance of carnelian beads was due to the close connections of the Koban culture population with the South Caucasian regions, where the widespread use of carnelian has been documented since the Neolithic and carnelian processing workshops have also been investigated in western Georgia, which is adjacent to the Koban culture area (Kobalia & Shavlakadze, 2022). The Colchian goldsmith centre, whose products (e.g. beads) were well known in the Koban sites of the Central Caucasus (Tli necropolis), is also located in the territory of western Transcaucasia (Kobalia, 2023). With regard to cowrie shells, the majority of which are believed to have originated from the Red Sea and the Persian Gulf region, their traditional use was indicative of the populations of Near Eastern civilizations (Golani, 2014). The adoption of this type of amulet jewellery by the people of Koban culture indicates their close cultural contacts with the southern regions during 900-700 BC.

References

Bedianashvili, G. & Bodet, C (2010). Koban Necropolis, Tombs 9 and 12: The Late Bronze to the Early Iron age of the Northern Caucasus. *TÜBA-AR, Turkish Academy of Sciences Journal of Archaeology*, 13, 277-292.

Belinsky, A.B., & Dudarev, S.L. (2015). *The Klin-Yar 3 cemetery and its place among the antiquities of the Early Iron age in the Caucasus and South-Eastern Europe*. Design studio publishing.

Berezin, Ya.B., & Dudarev, S.L. (1998). Lermontovskaya rock cemetery - Early Iron age monument in the Pyarigorsk region. *Materials on the study of the North Caucasus' historical and cultural heritage*, 1, 167-209.

Brileva, O., Kadieva, A., & Demidenko, S. (2023). Evolution of the image of a sitting deity in bronze anthropomorphic plastic of the Caucasus. *From the history of the culture of the peoples of the Northern Caucasus*, 16, 126-137.

Chantre, E. (1886). *Recherches anthropologiques dans le Caucase. Période protohistorique*. Reinwald & Georg Publishing.

Chshiev, V. (2005). On the semantics of Koban bird-shaped pendants. *Materials and research on the archaeology of the Northern Caucasus, 5,* 89-107.

Chshiev, Vladimir. (2017). *Elkhotovo burial ground as a reference site of the Koban culture of the North Ossetian foothills*. [PhD Thesis, Institute of history and archaeology, Vladikavkaz]. https://archaeolog.ru/media/dissovet/Chshiev_VT_Disser.pdf

Chursin, G.F. (1929). *Amulets and talismans of the Caucasian peoples*. Terek publishing.

Dudarev, S. L. (2004). Belorechensky 2 cemetery - Early Iron age monument of Caucasian Mineral Waters. *Materials and research on the archaeology of the Northern Caucasus, 3,* 16-100.

Fomenko, V. A., & Khokonova, L. A. (2018). On some ethnographic analogies to the Kamennomost-Berezovka antiquities. *Bulletin of the Kabardino-Balkarian institute of humanitarian research*, 4 (39), 22-26.

Gadzhiev, G.A. (1991). *Pre-Islamic beliefs and rituals of the peoples in the Dagestan Highlands*. Nauka publishing.

Golani, A. (2014). Cowrie shells and their imitations as ornamental amulets in Egypt and the Near East. *Polish archaeology in the Mediterranean,* 23/2, 71-94.

Kadieva, A., & Demidenko, S. (2020). Heavenly herd: necklaces of the pre-Scythian time with pendants in the form of ram's heads from the cemetery of Zayukovo 3. In E. Levanova & N. Smirnov (Eds.), *Dialogue 2017–2018. Dichotomy of art in archaeology* (pp. 232-244). Institute of archaeology publishing.

Kadieva, A., Demidenko., S. & Emkyzhev, A. (2020). Burial of the pre-Scythian time with a bronze chest cloth from the burial grave of Zayukovo 3. *Caucasology* 2, 50-67.

Kobalia, Nino. (2023). *Goldsmithing in Pre-Classical Colchis*. [PhD Thesis, Tbilisi State University, Tbilisi]. https://openscience.ge/server/api/core/bitstreams/5ae4cec8-229d-4fef-b447-cc75b0624844/content

Kobalia, N., & Shavlakadze, C. (2022). Certain issues of carnelian beads and pendants from the Samtavro cemetery. *History, Archaeology, Ethnolology*, 7, 348-368.

Kotova, N. (2008). *Early Eneolithic in the Pontic steppes*. BAR Publishing.

Kotova, N. (2013). Social structure of the Neolithic population in the Pontic steppe. In S. Kadrow & P. Włodarczak (Eds.), *Studien zur Archäologie in Ostmitteleuropa*, 11 (pp. 395-408). Habelt Verlag.

Kotova, N., & Makhortykh, S. (2025). Male amulets in the Koban culture. In R. Shumataev (Ed.), *XVII Orazbayev readings* (pp. 105-117). Kazakh university press.

Kozenkova, V. I. (1996). *Cultural-historical processes in the North Caucasus in the Late Bronze and Early Iron age*. Institute of archaeology publishing.

Kozenkova, V. I. (1998). Material foundation of everyday life of Koban tribes. Western variant. Nauka publishing.

Kozenkova, V. (2004). *Biritualism in burial rite of ancient Koban people. Tereze cemetery of late XII–VIII century BC*. Monuments of historical thought publishing.

Krupnov, E.I. (1960). *Ancient History of the North Caucasus*. Academy of science publishing.

Maisuradze, V.G., & Pantshava, L.N. (1984). *Shilda sanctuary*. Metsniereba publishing.

Makhortykh, S., Pomberger, B., Wegner, W., Winkler, V., & Grömer, K. (2024). About one group of metal magical objects in the Koban culture. *Revista Arheologică*, XX (2), 64-82. http://doi.org/10.52603/RA.XX.2.2024_07

Makhortykh, S., & Kotova, N. (2024). Bronze horse-shaped pendants from the Tli burial ground. In B. Kalshabaeva (Ed.), *XVI Orazbayev readings* (pp. 82-89). Kazakh university press.

Makhortykh, S., Grömer, K., & Tiefengraber, G. (2025). Elite female burial of the pre-Scythian period from the Koban necropolis. *Annalen des Naturhistorischen Museums Wien* (126, 183-209. https://doi.org/10.3897/anhmw.169550).

Moshinsky, A.P. (1996). Image of the master of animals in Koban plastics. In Yu. Piotrovskiy (Ed.), *Between Asia and Europe. The Caucasus in the 6th–1st millennium BC* (pp. 111-113). State hermitage museum.

Pogrebova, M.N. (1984). *Transcaucasia and its contacts with Western Asia in Scythian time*. Nauka publishing.

Tekhov, B.V. (1977). *Central Caucasus in the 16th–10th centuries BC*. Nauka publishing.

Tekhov, B.V. (1980). *Tli cemetery I*. Metsniereba publishing.

Tekhov, B.V. (1985). *Tli cemetery III*. Metsniereba publishing.

Tekhov, B.V. (2000). *New Late Bronze age site in the Southern Ossetia*. North Ossetian scientific center publishing.

Tekhov, B.V. (2002). *Secrets of ancient burials*. Project-press publishing.

Reinhold, S. (2007). *Die Spätbronze- und frühe Eisenzeit im Kaukasus. Materielle Kultur, Chronologie und überregionale Beziehungen*. Rudolf Habelt Verlag

Shestopalova, E. Yu. (2018). *Ancient Dagom*. Tsopanova publishing.

Shilling, E. (2018). Amulets of the East Caucasus. *State, religion, church in Russia and abroad*, 1, 213-228.

Stadler, P. (2014). *Quantitative methods with image database Montelius and software package WinSerion for archaeologists: examples of different analyses*. Vienna: University Press.

Terzan, B. (2012). In search of Medea - a study on the Caucasus Early Iron age. *Russian archaeological yearbook*, 2, 483-506.

Varber, G. (2008). *The history and use of amulets, charms and talismans*. Lulu Press.

Vinogradov, V.B., & Dudarev, S.L. (1983). On the chronology of some sites of the beginning of the 1st millennium BC from the Karachay-Cherkessia and Pyatigorsk region. In E.P. Alexeeva (Ed.), *Problems of archeology and ethnography of Karachay-Cherkessia* (pp. 7-17).

MYCENAEAN AMULETS[1]

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Summary
Amulets are objects worn or carried on the person or placed at the location of the desired magical effect. Their appeal lies in the belief that certain objects have the power to protect, heal, or assist those who carry them, due to the material they are made from, their shape, decoration, inscription and their symbolic or religious associations, or the rituals involved in their creation.
The use of amulets in Mycenaean Greece has not attracted much attention, even though amulets are occasionally identified in the archaeological record, particularly in funerary contexts. In Mycenaean Greece, then, protective properties seem to have been attributed to several objects of personal adornment, depending on the iconography, symbolism, material, shape and exotic quality of the item. Thus, protective properties have been applied to beads of particular colour, material and shapes, such as the figure-of-eight shape, a symbol that in Mycenean culture has been associated with a female warrior deity that would presumably literally shield the wearer from harm. Similarly, red carnelian seems to have been particularly associated with children, as iconographic representations and evidence from funerary contexts suggest. Other shapes, such as the crescent in the form of pendants, might have also had protective qualities for the Mycenaeans, particularly women, based on its association with the lunar phases and with notions of fertility and child rearing. Inscribed objects and specifically objects with intelligible text, reminiscent of the practice during Antiquity to inscribe amulets with repetitive and non-sensical invocations as some type of exorcism, though rare, also occur in Mycenaean Greece. Moreover, sealstones with religious symbols and images, worn as finger rings, necklaces, bracelets or anklets, could have also served as protective or apotropaic ornaments. The Mycenaeans also resorted to the use of amulets from foreign cultures as well, as indicated by the occurrence in funerary contexts of objects of foreign origin with magico-religious properties, such as Egyptian scarabs that symbolized resurrection and rebirth.
The detailed examination, therefore, of the Mycenaean material culture has revealed a variety of objects that may have been attributed with protective qualities, thus throwing light into a neglected aspect of Mycenaean culture and beliefs.

Keywords: Mycenaean, amulets, apotropaism.

Introduction

An amulet is defined as a small object that secures protection, health and prosperity to its wearer, shielding him in daily life against misfortune, illness, death, the evil eye or any other evil caused by malevolent forces or the envy of other people (Bohak, 2015, p. 83; Kotansky, 2019, p. 507). Amulets were usually worn around the neck, wrist, thigh or ankle or carried on the person, put inside clothes, or placed at the location of the desired magical effect, since physical contact was considered quite important for the object to transfer its power to the wearer (Bohak, 2015, p. 88; Håland, 2023, p. 383).
The use of amulets is a diachronic and universal phenomenon. Their use is based on the belief that certain objects have the power to protect, heal, or assist those who carry them, due to the material they are made from, their shape, decoration, inscription and their symbolic or religious associations, or the rituals involved in their creation (Iakovidis, 1970B, p. 312; Bohak, 2015, p. 83; Kotansky, 2019, p. 507-508). Amulets were made from durable materials, such as metals and precious or semi-precious stones, but also from perishable materials, such as threads or cloth, while they could also have an animal, vegetal or mineral origin as ancient written sources and ethnographic evidence attest (Kotansky, 1991, p. 107; 2019, p. 507; Dasen, 2003, p. 375; Merkouri, 2010b, p. 77; Håland, 2023, p. 382). Animal parts, such as teeth, claws, feet, horns and shells, have been ascribed with apotropaic or prophylactic attributes in various cultures and historical periods, while their prophylactic use has been recorded also by ancient writers, such as Pliny (Bohak, 2015, p. 85). Knucklebones specifically, besides being used in games, were connected with ritualistic practices, such as divination, and have often been interpreted as amulets, given the fact that they were frequently perforated to be worn as pendants and were deposited in graves (see among others Gilmour, 1997, esp. p. 172; Graf, 2005, p. 60-66; Phialon, 2022). The protective or apotropaic role of animal parts must have been associated with their function and inherent power and the belief that their attributes would be transferred to the person carrying the animal part

[1] I am very grateful to the editors of this volume for their help and to the anonymous reviewers for their valuable comments and suggestions on a previous draft of this paper. Any mistakes remain my own.

(Choyke, 2010, p. 201). Further, the choice of animal material for the production of personal ornaments would have not only been dictated by the availability and cheapness of the material but also by the belief in the magical quality bestowed to the object by the material itself (Choyke, 2010, p. 202).

Amulets could also have a vegetal origin. The attribution of protective or apotropaic qualities to a vegetal amulet would have depended on the association of the plant with a specific deity, on some symbolic dimension of the plant or on specific qualities it possessed and its use in medicine. The connection of plants with religion and cult performance has a long history, which in the Greek world can be detected as early as at least the Late Bronze Age and is still observed in the Greek Orthodox ritual. Protective qualities were also attributed to specific minerals that were related to the material's physical properties, such as colour, texture, durability, as well as ascribed medicinal qualities and suppositional magical properties (Duffin, 2014, p. 84-85; Koutroumbas, 2014, p. 24; Bohak, 2015, p. 89). The colour of the stone in the Graeco-Roman Antiquity often had an important role since it could be associated with body liquids and secretions (Dasen, 2014, p. 180; Håland, 2023, p. 395). For example, the use of the stone galactitis (milkstone) to facilitate lactation recorded by Pliny, could be understood by the similarity between the milky appearance of the stone when turned into white liquid to be drank and breastmilk (Koutroumbas, 2014, p. 24). Similarly, haematite was considered to stop the flow of blood, due to its dark red colour and for that reason was often used in amulets related to gynaecological matters (Faraone, 2003, p. 189, n.2; Håland, 2023, p. 395).

Metals were also considered to have a protective power against magic, as attested by Pliny (Håland, 2023, p. 382), presumably due to their qualities (durability, colour, shine), or their exotic origin. The magical dimension of metals -in raw or finished form- as well as of the actual processes of mining, smelting and working the material and of the craftsmen themselves can be attested in different ancient cultures. This aspect of metallurgy is indicated by the role of metals in healing and in ritual performance, as offerings or cultic paraphernalia, as well as by the connection between metallurgical production and cult places, attested also for the Prehistoric Aegean (Alberghina, 2023, p. 10).

Finally, amuletic properties would have also been attributed to personal objects or objects of everyday use and things with a special meaning to their owners. Such amulets cannot be easily identified in the archaeological record, since there is nothing culture specific as to their use as protective objects (Bohak, 2015, p. 84).

Identifying the Mycenaean amulet[2]

The Mycenaean culture developed in the Late Bronze Age, approximately from the XVIth century to the XIth century BC. During its acme, from the XVth to the XIIIth century BC, the Mycenaeans extended their influence and control from the Peloponnese, which was their birthplace, to most of mainland Greece and the Aegean. The Mycenaean culture was strongly influenced by the Minoan one, which preceded it, but it gradually developed its own distinctive characteristics. The Mycenaeans used the Linear B script for administrative and economic purposes. Therefore, the absence of written texts throwing light onto Mycenaean religious beliefs and practices makes the identification of Mycenaean amulets challenging. Excavators have sporadically identified as Mycenaean amulets certain objects mostly due to their similarities with amulets of other cultures and later periods, an interpretation that is further supported by their occurrence in burial contexts. The absence of evil deities and demons from the imagery of Prehistoric Aegean, as well as the uncertainty regarding whether anthropomorphic and zoomorphic deities were actually depicted in Aegean iconography, what their attributes were and whether they intervened benevolently in people's lives (Krzyszkowska, 2016, p. 116), further impedes the identification of such beliefs.

Apotropaic iconography is very rare in the Prehistoric Aegean. In the Mycenaean culture the notion of apotropaism is expressed as a concept by the idols uncovered in the Temple of Mycenae and their grotesque facial characteristics (Aamodt, 2022, p. 108) and by few depictions of frontal faces on sealstones, since both grotesqueness and frontality are essential characteristics of apotropaism. Further, beliefs related to conceptions of apotropaic and magical protection are suggested by ritualistic practices, such as the deposition of Mycenaean clay figurines in liminal spaces, like hearths and thresholds (Kilian, 1988, p. 148) and their occurrence in places of craft production (Vetters, 2011, p. 39-40, 42), possibly functioning as protective devices (for the examination of Mycenaean practices for warding off evil in relation to cult performance see Aamodt, 2022).

Identifying Mycenaean amulets requires a deep understanding of the characteristics, material manifestations and symbolic dimensions of protective/ apotropaic objects diachronically, as well as of the possible ways that such concepts would have been expressed in Mycenaean iconography and culture specifically. The identification of Mycenaean amulets depends on the assumption that the iconography and symbolism would have played an important role, as it did in amulets of later periods. Hence objects with religious iconography would have been employed to protect, according to the belief that the image of the deity would

[2] In this paper no functional distinction is made between the amulet and the talisman and the two are considered as serving the same function.

protect the wearer. Similarly, shapes with religious associations, such as the figure-of-eight[3] or the crescent, might have had a prophylactic role. Writing has also been associated with magical protection, noted for example on inscribed Graeco-Roman amulets (see for example Kotansky, 1991, p. 110-116; 2019), as a visual materialization of sounds and subsequently of magical words and incantations, or even of non-sensical words. Similarly, specific materials, such as metals and minerals, would have been ascribed with magical qualities, due to their physical properties, ways of acquiring and processing them and beliefs regarding their potency.



Figure 1. Minoan prism CMS VI 101a. Arachne ID: 6892384 https://arachne.dainst.org/entity/6892384?fl=20
Creative Commons license (BY-NC-ND 3.0).

Mycenaean amulets[4]

Given the fact that frontal depictions with grotesque features displayed on Minoan MMII prisms (Figure 1) most certainly had an apotropaic function (Krzyszkowska, 2016, p. 118-119), similar depictions occurring on the mainland must have served an analogous purpose, especially since they occur on objects that would have been worn on the body as adornment (Aamodt, 2021, p. 50). The rare examples that were found on Mycenaean soil occur on sealstones and display a motif that most likely evolved from the Minoan precedents having lost their terrifying appearance. The sealstones carrying this motif were perforated to be worn as pendants or bracelets and were uncovered in Room XIV (XVth century BC) of the West Gate at the palace of Midea (Krzyszkowska, 2016, p. 121, fig. XLV.h) and in the Tholos tomb (LH IIIA2-IIIB1) of Karpophora at Nichoria (Wilkie, 2000-2001, p. 11; CMS V 431). On the example from Midea the apotropaic potency of the image is further enhanced by the presence of the dangling arms and the snake, both apotropaic symbols (Merkouri, 2010a, p. 27; Lambropoulou, 2024, p. 109), as attested also in Minoan iconography, namely on the two gold pendants from the peak sanctuary of Juktas (MM IIIB/LM I) and the tomb at Aghia Triadha (LM I) depicting among other creatures a snake and a palm hand (Karetsou, 1977, p. 420, pl. 222d). The fact that the snake on the Midea sealstone is encircling the main depiction could indicate its protective role and seems reminiscent of the Graeco-Roman magical gemstones displaying the ouroboros motif (a snake eating its own tail) which, by encircling the main scene of the gem, creates a magically protected space (Dasen, 2014, p. 181).

Mycenaean sealstones were worn as finger rings, necklaces, bracelets and anklets, and given their imagery, material and colour would have been suitable for amulets. Sealstones occurred regularly in Mycenaean burials (Wilkie, 2000-2001, p. 7; Drakaki, 2009, p. 51) quite often in numbers and frequently constituted heirlooms, while they were also deposited in sanctuaries as offerings. They have been considered indicative of their owner's status and identity, social and/or religious (Laffineur, 1992; Drakaki, 2009, p. 51). In funerary contexts they were prestigious funerary gifts that frequently formed part of the attire of the deceased, suggested by the find spots in relation to the skeleton. There is, therefore, ample archaeological and iconographic evidence to corroborate their use as personal adornment (Younger, 1977, p. 146-153). As such, they could have served as amulets due to the magical properties attributed to their iconography and material.

More specifically, the depiction on sealstones of creatures with symbolic dimensions, such as griffins and sphinxes, the protective character of which is indicated



Figure 2. Agate lentoid CMS I 098 from Tomb 58 of the Lower Town of Mycenae, approximately 1600-1370 BC. Arachne ID: 1150135 https://arachne.dainst.org/entity/1150135
Creative Commons license (BY-NC-ND 3.0).

[3] Named after its resemblance to the number eight, the figure-of-eight shield was a Mycenaean defensive weapon made of layers of oxhides. In addition to its use in warfare, it was also a powerful religious symbol, as an attribute of a female warrior goddess and was frequently depicted in Mycenaean large and small-scale art in scenes of cultic and ceremonial nature.

[4] Given the difficulty in identifying Mycenaean amulets when insight into such religious beliefs is scarce, this paper will only examine amulets made of durable materials, the interpretation of which is considered more secure, while the possible amuletic character of animal parts will similarly not be addressed at present.

by their association in the Minoan-Mycenaean iconography with thrones, columns and altars (Figure 2) as well as with human and divine figures, representing the guardianship over secular and religious power (Tamvaki, 1974, p. 289; Laffineur, 1992, p. 110; Wilkie, 2000-2001, p. 10) would have rendered an amuletic property to these objects, although not necessarily an exclusive one. In a similar way the motif of the Master or Mistress of Animals would have had protective qualities, due to the representation of power and control over the natural and supernatural world (Laffineur, 1992, p. 106-107). Equally, the Minoan genius, the protective role of which is suggested by its origin from the Egyptian Taweret, a protector of children and childbirth, and by its depiction in Aegean iconography as flanking and protecting female or male figures (Weingarten, 2013, p. 374; Blakolmer, 2015, p. 31-32), would have served a similar purpose.

Religious symbols, such as the figure-of-eight, the double axe, the bucranium, in the form of pendants or beads, or perforated miniature female figurines worn on the body, might have also been attributed with amuletic properties due to their religious associations. The figure-of-eight, particularly, has multiple layers of symbolic meaning in the Prehistoric Aegean. It is a defensive weapon, but it is also associated with a female warrior deity, often appearing as her manifestation, as well as with notions of fertility and regeneration (Nikolaidou, 2020, p. 182-183). Furthermore, the two interconnected circles of the shape have strong magic and cosmic associations (Rutkowski in: Nikolaidou, 2020, p. 186). Consequently, as a powerful symbol, figure-of-eight shaped pendants and beads would have truly shielded the wearer from harm (Hughes-Brock, 1999, p. 287; Muskett, 2009, p. 45). Indeed, such objects have been uncovered in a number of burials, accompanying both children and adults, for example in the tholos tomb of Dendra in the Argolid (LH II-IIIA1) or in Chamber Tomb VII and the so -called Kylix Pit (both LH IIIB-LH IIIC) of the Athenian Agora (Townsend, 1955, p. 199-200, 215, fig. 8, p. 217, pl. 76 no.34; Immerwahr, 1971, p. 190, 253), in a child burial (LH IIB) at Argos (Muskett, 2009, p. 45), in Tomb B8 at Metaxata on Kephallonia (Souyoutzoglou-Haywood, 1999, p. 84) and in the Tholos Tomb (LH IIA) of Kakovatos, as well as in the settlement (LH III) of Eutresis (Daniilidou, 1998, p. 210). Particularly impressive is the necklace made of amethyst accompanying a child in Tomb 4 from Argos, which included 11 figure-of-eight beads (Demakopoulou, 1988, p. 221). Figure-of-eight pendants also accompanied female burials, for example the gold pendant from Grave O (LM/LH IA) from the Grave Circle B at Mycenae (Mylonas, 1973, p. 201, pl. 181), or the rock crystal example from Tholos Tomb Δ (LM IIIA:2) at Archanes on Crete (Sakellarakis, 2009, p. 193). Further evidence that this shape was indeed worn as a necklace derives from a Mycenaean cult figure uncovered at the palace of Midea (LH IIIB:2), which has a small figure-of-eight painted on its chest (Figure 3).



Figure 3. Terracotta female figure (the Lady of Midea) from the palace of Midea, 1250-1200 BC. Archaeological Museum of Nauplio. https://commons.wikimedia.org/wiki/File:Female_figurine,_Mycenaean_type,_13th-12th_century_BC,_AM_Nafplio,_Naum08.jpg
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Pendants in the form of the double-axe have been uncovered mostly in Minoan burial contexts, for example at Mesara and Mochlos (Konstantinidi, 2001, p. 243). From a Mycenaean context derives a small silver double axe (LH IIIA) from the Tomb of Rizomylos (Konstantinidi, 2001, p. 243), while a miniature single axe (LH IIA) was apparently found in Tomb VII of the Athenian Agora (Konstantinidi, 2001, p. 243)[5].

A shape with a diachronically symbolic meaning is the crescent (for a detailed study of crescent shaped pendants in the Bronze Age Aegean see Konstanti, 2023). In Mycenaean Greece, crescent shaped pendants have been uncovered mostly in tombs, accompanying both children and adults, such as Tomb Θπ4 (LH IIIA2-IIIB1) at Eleusis (Mylonas, 1953-1954, p. 38, 42-43), Tomb 36 (LH IIIA2) at Thebes (Konstanti, 2023, p. 346), Tombs 49 and 147 (LH IIIC) at Perati made of gold foil (Iakovidis, 1970A, p. 118, 122, 247; 1970B, p. 315), Chamber tomb I.1 (LH II-III) at Asine (Frödin and Persson 1938, p. 374, fig. 242, no.5). From Kephallonia, an example was uncovered in a tomb (LH IIIA-IIIC) at Kokkolata (Kavvadias, 1912, p. 266, fig. 47.b, p. 268; Souyoudzoglou-Haywood, 1999, p. 84) and another one in burial 4 from Tomb E (LH IIIB or IIIC) at Mazarakata (Konstanti, 2023, p. 346). Occasionally they occur in settlement contexts, for example at Nichoria (LH IIIA2) in Messenia and at Korakou (LH III) in Corinthia[6]

[5] Note, however, that no such object is mentioned either by the excavator (Townsend, 1955), or the publisher of Volume XIII of the Athenian Agora (Immerwahr, 1971, p. 183-190).

[6] The particular specimen is not perforated.

(Konstanti, 2023, p. 346, 349). The shape has been associated with women, menstruality, fertility, lactation and with children and growth in various cultures and chronological periods (Merkouri, 2010b, p. 81; Konstanti, 2023, p. 344; Håland, 2023, p. 401). In Egypt pendants of this shape protected from evil and magic (Iakovidis, 1970B, p. 315), but were also associated with children, correlating the lunar phases with their development, while crescent amulets were common in Archaic and Classical Greece (Dasen, 2003, p. 280; Pomadère, 2012, p. 437; Håland, 2023, p. 401). Indeed, depictions of young children on Attic choes often represent them wearing a number of amulets, among them crescent shaped ones (Konstanti, 2023, p. 345). During these periods the crescent was probably a reference to the protection of Artemis as the goddess associated with the birth and raising of both humans and animals (Dasen, 2003, p. 280; Håland, 2023, p. 401). A further indication of the connection between women and the crescent shape consists the clay female figure (LH IIIC) uncovered at Tiryns wearing a crescent shaped pendant (Hughes-Brock, 1999, p. 280). The fact that the figure (Figure 4) possibly represents a deity (Konstanti, 2023, p. 347) could indicate a connection of the shape with the worship of a female deity during that period, thus enhancing its potency.



Figure 4. Terracotta female figure from the Lower citadel of Tiryns, XIIth century BC. Archaeological Museum of Nauplio. https://commons.wikimedia.org/wiki/File:Terracotta_female_figure,_Tiryns,_12th_c_BC,_AM_of_Nafplio,_202155.jpg
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Given the religious and symbolic connotations of Mycenaean figurines, indicated by their deposition in graves and their occurrence in sanctuaries, settlements and liminal spaces, it is possible that occasionally they might have been used as amulets, probably worn as pendants (Hägg, 1981, p. 38, n. 28). An Archaic clay figurine from Boeotia displayed in the Louvre Museum (Louvre MNB 1313) has a phi figurine painted as a pendant around its neck. Although the figurine is later in date, it could pertain to a Bronze Age habit, while the perforated Mycenaean figurines uncovered at the sanctuary of Athena Pronaia at Delphi perhaps further support such a use, in addition to the possible custom of suspending figurines from trees as an offering (Hägg, 1981, p. 38, n. 28, fig. 2 and 3). Their use as amulets would be a reference to divine protection through the display of the image of the deity. The amuletic character of figurines could be further supported by the presence of a pendant in the form of a Cycladic idol in tomb Δ at Lakkithra on Kephallonia (Marinatos, 1932, p. 26, pl. 17). However, perforated figurines remain very rare and, therefore, their use as amulets must remain simply a possibility.

Beads made of various materials and shapes were a common adornment during the Mycenaean period. In the Mycenaean culture, beads were often associated with children, indicated by iconographic and funerary evidence. Overall, beads seem to have been considered an appropriate adornment for them, but it is possible that they also had a symbolic meaning and an amuletic function (Smith and Dabney, 2012, p. 443, with relevant References. For the association of children with beads in funerary contexts see among others Konstantinidi, 2001, p. 244; Gallou, 2004, p. 368; Pomadère, 2012, p. 435-437; Smith and Dabney, 2012, p. 442-445). Beads were worn as necklaces, anklets, arm-bands, bracelets, on the hair or even as earrings and sewn on textiles (Smith and Dabney, 2012, p. 443). Red carnelian was particularly common in children's burials (Pomadère, 2012, p. 436), perhaps with amuletic or symbolic properties due to being a semi-precious stone and its colour, a reference to blood as the essence of life (Hughes-Brock, 1999, p. 278; Konstantinidi, 2001, p. 8). The red beads decorating the dress of the young girl held by a female deity (Muskett, 2009, p. 45) depicted on a group of wall painting fragments from Mycenae (LHIIIB) might be a reference to the connection between children and red stone in a religious context and under the protection of the goddess. Carnelian beads were found in a number of tombs, such as Tombs 31, 49, 134 and 147 at Perati, a tomb at Methana (LH IIIA-B) and Tomb Γ at Alyke (LH IIIA) and the fact that they are often found at the jaw of the dead child, indicates they were worn as pendants. The protective properties of beads are also supported by examples from Antiquity and by ethnographic parallels. Children depicted on choes in Classical Athens wear beads on a cord across their upper body as amulets (Dasen, 2003, p. 278-279; Muskett, 2009, p. 45), whereas in modern Greece and elsewhere a blue bead is worn on babies to protect them from the evil eye (Smith and Dabney, 2012, p. 445).

Of particular interest are pendants or beads in the form of animals, such as bulls/cows, lions and/or dogs, frogs

and fish, uncovered both in Minoan Crete and Mycenaean Greece (for a brief overview of such pendants/beads found on Minoan Crete see Phialon, 2022, p. 16-17). In Mycenaean Greece two perforated faience bulls or cows in a reclining position were uncovered in Tomb 82 at Mycenae-Kalkani (Xenaki-Sakellariou, 1985, p. 231, 233, no. Φ 3124, pl. 111, and II; Phialon, 2022, p. 17, fig. 3). A similar specimen, as well as a glass or faience bead in the form of a lion were also uncovered at Tiryns (Phialon, 2022, p. 18). Another example of a possible cow was found at Thebes in a LH IIIB floor deposit. Gold specimens of bovine animals, either in the form of beads or in less compact form, were uncovered in tombs at Mycenae (Xenaki-Sakellariou, 1985, p. 181, 194, X2868, pl. 76 X2947, pl. 84; Phialon, 2022, p. 19). Perforated gold examples of lions were found in Shaft Grave III (Thomas, 2004, p. 194, no. 5, fig. 9.29, p. 197, no. 21, fig. 9.35) and in a LH chamber tomb at Mycenae (Xenaki-Sakellariou, 1985, p. 214-215, X2949, pl. 98). A perforated animal pendant (LH IIIC) made of stone was found in the West Shrine at the sanctuary of Phylakopi, where it was deposited as an offering (Renfrew, 1985, p. 346, 349, SF 2008; Phialon, 2022, p. 20). Perforated couchant animals most likely were used as amulets, perhaps securing protection through the evocation of the specific abilities of the animals represented or some other symbolism. However, as Phialon (2022, p. 20) observes, further research is needed in order to define the connection between these objects and the idea of protection.

Besides the material and colour, amuletic properties would have been ascribed to beads due to their shape and magico-religious connotations. Relief beads, for example, display an array of interesting shapes with religious associations, such as altars, jugs and female figures, as well as plants. The latter may reveal a more complex connection with the idea of supernatural protection, not only through the obvious association with a female deity, but also perhaps due to their use in medicine. Flowers were a common offering to a goddess, attested by Aegean iconography, but almost certainly were also used for their medicinal properties, among others to treat gynaecological complaints (Hughes-Brock, 1999, p. 288). The occurrence of the lily and the ivy-leaf in the form of relief beads, then, could also be a reference to the implication of a deity that presided over nature and the knowledge of phytopharmacology and could ascribe them complex symbolic dimensions. The medicinal benefits of lily (*L. candidum),* for example, are well-known in folk medicine, and include a treatment for mastitis (Zaccai et al., 2020, p. 2). Similarly, the ivy, according to Dioscorides, had contraceptive qualities (Riddle, 1992, p. 32, 35). Under a similar light should also be understood the occurrence of poppy-seed beads in burial contexts. Their deposition with the deceased as possible amulets (Hughes-Brock, 1999, p. 280-1; Muskett, 2009, p. 45) would have been a reference to their medicinal properties, particularly to their ability to alleviate pain and induce sleep, as well as their association with a female deity indicated, for example, by the gold signet ring from the Acropolis of Mycenae (Day, 2013, p. 7). Poppy-seed beads have been found in an infant burial (LH IIIA-B) at Methana (Konsolaki-Giannopoulou, 2003, p. 260), in Tomb 92 at Perati, associated with an adult (Iakovidis, 1970B, p. 202, 305-307) and in LH IIIC tombs at Lakkithra and Metaxata on Kephallonia (Marinatos, 1932, pl. 15; Marinatos, 1933, pl. 3; Souyoudzoglou-Haywood, 1999, p. 84), while a possible poppy-seed shaped pendant was uncovered in a tomb at Kokkolata, on Kephallonia (Kavvadias, 1912, p. 266, pl. 47). The amuletic role of representations of plants and flowers and the possible identification of Mycenaean amulets that were connected to healing needs further examination.

Writing can also be associated with magical and prophylactic properties. This aspect of writing depends on the notion of materiality, since written characters are primarily material and iconic symbols that materialize sounds and as such they hold power. This is clearly indicated by the inscribed gemstones of later periods, where the inscription was believed to further empower the stone (Dasen and Nagy, 2019, p. 407) and enhance its prophylactic role. In the Graeco-Roman world, a sequence of letters, a word, a formula or a strange-sounding name were believed to summon the "hidden name of a deity or daemon" and augment the efficiency of the object (Dasen and Nagy, 2019, p. 407). In the Prehistoric Aegean inscribed objects and, predominantly, inscribed jewellery have similarly been ascribed with apotropaic qualities (Boulotis, 1986, p. 12-13; Papadaki, 2023). The occurrence in Mycenaean tombs of inscribed objects, though rare, suggests that the Mycenaeans shared a belief in the protective and apotropaic potency of written characters. A white pebble from Korakou (LH II) and a crystal button from Nauplia (LH II-IIIB), uncovered in children's burials, were decorated with the Linear B sign of -ro (-lo) (Konstantinidi, 2001, p. 244-245; Gallou, 2004, p. 368), which in the eyes of the illiterate, could have acquired magical properties. An inscribed lentoid was found in Tomb 24 at Perati on the chest of a young adult (Iakovidis, 1964, p. 155; Iakovidis, 1970B, p. 313, 317-321; Konstantinidi, 2001, p. 235). The lentoid is engraved on both sides with characters from different scripts, namely Linear A and B, Cypro-Minoan and Hittite. The lentoid was an attempt to imitate a Hittite bulla, an amulet, by an inscriber who did not understand the Hittite script and who added symbols from other scripts and symbols he invented. The text is deliberately unintelligible to enhance its apotropaic function and is reminiscent of the habit in later periods of inscribing amulets with repetitive and non-sensical invocations as some type of exorcism (Iakovidis, 1964; Iakovidis, 1970B, p. 320. For inscribed amulets in the Greek and Roman world see among others Kotansky, 1991). A similar

steatite lentoid was uncovered in Chamber Tomb 523 at Mycenae (LH IIIA2), inscribed with hieroglyphic Luwian script (Boardman, 1966; Cline, 1991, p. 136), and another was found in Tomb 33 from Ialysos on Rhodes (LH III), also with Hittite and non-Hittite signs (Iakovidis, 1970B, p. 320; Cline, 1991, p. 136).

In addition to the shape, imagery and religious association of the objects identified as amulets, material would also have played a role and the combination of a powerful image or shape with an equally potent material, would have enhanced the efficacy of the amulet. The occurrence of amber objects in warrior burials during the Early Mycenaean period might have been a deliberate practice with a prophylactic character, given the particular inherent qualities of the material. It is a shiny stone resembling gold, warmer than other stones and floats on water, can be burned releasing an aromatic scent, and can be electrostatically charged when rubbed against cloth (Maran, 2013, p. 147). During the early Mycenaean period, a time of competing elites and the gradual consolidation of power, amber occurred in specific tombs associated with warrior elite identity in the form of necklaces, belts, sword-beads, even unworked material, and could have been part of the equipment of elite warriors in order to offer them magical protection both in life and death. Moreover, the presence in Tholos A at Kakovatos (LH IIA) of an amber bead in the form of figure-of-eight, is a testament of the combination of a powerful protective symbol with a magically charged material.

Finally, a brief mention should be made on the use by the Mycenaeans of foreign amulets. In addition to the crescent shaped amulets from Perati, which were imported from Syro-Palestine, the Mycenaeans also used Egyptian amulets, namely scarabs, and cartouches. Many of these objects were uncovered in tombs, such as Tomb XIV in Prosymna (Blegen, 1937, p. 169-170) and various tombs from Perati (Iakovidis, 1970B, p. 313-314). An Egyptian scarab and a cartouche were worn around the necks of infants in Tombs 90 and 104 respectively (Iakovidis, 1970B, p. 313). In Egypt the scarab symbolized resurrection and rebirth and was commonly worn as an amulet and deposited with mummies, its power enhanced by additional inscribed symbols and prayers on its flat side (Georgoulaki, 2010, p. 199). Further, the presence in Tomb 30 at Perati of faience figurines of the Egyptian gods Bes, Taweret and Sebek, all three deities employed as protective forces in Egypt, are most likely an evocation to their protection (Iakovidis, 1970B, p. 315). The fact that some of the figurines were perforated (Iakovidis, 1970A, p. 304) suggests the probability they were worn as pendants. In addition to the possibility that Egyptian objects might have been deposited as funerary gifts to denote the status of the deceased or access to exotica, the fact that there was a preference to scarabs, cartouches with foreign writing and figurines of protective deities, all objects that could be worn as pendants, seems to suggest a belief in their symbolic dimensions and their role as protective devices for the dead. The scarab, particularly, could have been associated with the development of the living, as well as with notions of regeneration and rebirth in the afterworld (Dasen, 2003, p. 283). In addition to Egyptian protective objects, Near Eastern cylinder seals found in burials on mainland Greece could have served a similar purpose. This type of seal, which was modified to be worn as a pendant, was rarely used for imprint purposes, suggesting that its use was more as an object of prestige or exotic jewellery (Kopanias, 2012, p. 397-399). The exotic quality of these objects, their precious material (lapis lazuli, faience, haematite) combined with the religious decoration and with the unintelligibility of a foreign text would render them appropriate objects to function as protective devices.

Conclusions

This paper sought to provide a comprehensive overview of Mycenaean amulets, displaying the diversity of potential objects and the underlying cultural and symbolic concepts that would have dictated the particular choices. The identification of Mycenaean amulets requires an understanding of how the specific culture would have expressed ideas of supernatural protection and defense against evil. Given the near absence of explicit apotropaic iconography in the Mycenaean culture, notions of protection might have been communicated through symbols associated with the divine sphere, such as the figure-of-eight or the crescent, the display of power and authority, like the Master and Mistress of Animals motif, or protective beings like the griffin and the Minoan genius. In addition, shape, material and colour would have played an important role in the potential use of an object as an amulet, given the symbolic connotations such attributes had in the Mycenaean culture. The figure-of-eight, for example, had an obvious association with protection, not only because it represented a defensive weapon, but also due to its connection to a female warrior deity. Similarly, beads in the shape of animals or plants could have had a symbolic dimension, acquiring a protective function from specific characteristics of the animal or plant depicted. The representation of plants and flowers, such as the poppy, or the ivy as beads is particularly interesting given not only their connection to a goddess but also to medicinal practice, potentially throwing light on a distinctive category of amulets, that related specifically to health and healing.

The inherent properties of materials could also ascribe them with magical qualities as would colour. Amber was an exotic material with peculiar properties and bright colour that could associate it with magical qualities. Red carnelian, similarly, seems to have been especially associated with children, an association that might have depended on its red colour, a possible reference to blood and life.

Finally, the exotic origin of an object, its foreign iconography and presence of written characters could have attributed it with possible amuletic properties due to the symbolic and/or magico-religious connotations of these characteristics.

In conclusion, identifying Mycenaean amulets requires a careful analysis of the Mycenaean material culture informed by a deep knowledge of the characteristics and symbolic dimensions of protective objects diachronically, as well as of the possible ways that such concepts would have been expressed in Mycenaean iconography and culture.

References

Aamodt, C. (2021). Personal Adornment for Ritual Protection in Mycenaean Greece. *Journal of Prehistoric Religion 27*, 46-63.

Aamodt, C. (2022). Practices for Averting Evil and the Notion of Ritual Protection in Mycenaean Cult Performance, in Katarzyna Żebrowska, Agata Ulanowska & Kazimierz Lewartowski, eds, *Sympozjum Egejskie. Papers in Aegean Archaeology*, 3 (pp. 127-139). Brepols.

Alberghina D. M. (2023). Smelting Metals, Enacting Rituals. The Interplay of Religious Symbolisms and Metallurgical Practices in the Ancient Eastern Mediterranean. *Asia Anteriore Antica. Journal of Ancient Near Eastern Cultures 5*, 3-22.

Blakolmer, F. (2015). Was the 'Minoan Genius' a God? An essay of Near-Eastern Deities and Demons in Bronze Age Aegean iconography. *Journal of Ancient Egyptian Interconnections 7.3*, 29-40.

Blegen, C.W. (1937). *Prosymna:* the Helladic settlement preceding the Argive Heraeum, Vol. 1 and 2. Cambridge University Press.

Boardman, J. (1966). Hittite and Related Hieroglyphic Seals from Greece. *Kadmos 5.1,* 47-48.

Bohak, G. (2015). Amulets. In R. Raja and J. Rüpke (eds.) *A companion to the Archaeology of Religion in the Near East* (pp. 83-95). John Wiley & Sons Inc.

Boulotis, Ch. (1986). Στοιχεία Μαγείας στη Μινωϊκή Κρήτη. *Archaiologia 20,* 8-15.

Choyke, A. (2010). The Bone is the Beast: Animal Amulets and Ornaments in Power and Magic. In D. Campana, P. Crabtree, S. D. de France, J. Lev -Tov & A. Choyke (eds.) *Anthropological Approaches to Zooarchaeology: Complexity, Colonialism, and Animal Transformations* (pp. 197-209). Oxbow.

Cline, E. H. (1991). Hittite Objects in the Bronze Age Aegean. *Anatolian Studies XLI*, 133-144.

Daniilidou, D. (1998) *Η οχτώσχημη ασπίδα στο Αιγαίο της 2ης π.Χ. χιλιετίας.* Academy of Athens.

Dasen, V. (2003). Les amulettes d'enfants dans le monde gréco-romain. *Latomus 62,* 275-289.

Dasen, V. (2014). Healing Images. Gems and Medicine. *Oxford Journal of Archaeology 33.2*, 177-191.

Dasen, V. and A. M. Nagy. (2019). Gems. In D. Frankfurter (ed.) Guide to the Study of Ancient Magic. Religions in the Graeco-Roman World, Vo. 189 (pp. 406-445). Brill.

Day, J. (2013). Botany meets archaeology: people and plants in the past. *Journal of Experimental Botany, 64.S1,* 1–12, doi:10.1093/jxb/ert068

Demakopoulou, K. (1988) *Ο Μυκηναϊκός κόσμος. Πέντε αιώνες πρώιμου ελληνικού πολιτισμού 1600-1100 π.Χ.* Greek Ministry of Culture.

Drakaki, E. (2009). Late Bronze Age Female Burials with Hard Stone Seals from the Peloponnese: A Contextual Approach. In H. Cavanagh, W. Cavanagh & J. Roy (eds.) *Honouring the Dead in the Peloponnese* (pp. 51-70).

Duffin, C. (2014). The pharmaceutical use of Lapis Lazuli in the Ancient East. *Pharmacetical Historian 44.4,* 84-87.

Faraone, C. A. (2003). New Light on Ancient Greek Exorcisms of the Wandering Womb *Zeitschrift für Papyrologie und Epigraphik 144*, 189 -197.

Frödin O. & Persson A.W. (1938) *Asine. Results of the Swedish Excavations 1922-1930*. Generalstabens litografiska anstalts förlag.

Gallou, C. (2004). More than little perishers: Child burial and the living society in Mycenaean Greece. *EAZ 45*, 365-375.

Georgoulaki, L. (2010). Αποτρέποντας το κακό. Η περίπτωση των Αιγυπτιακών σκαραβαίων. In C. Merkouri (ed.) *Βάσκανος Οφθαλμός. Σύμβολα μαγείας από ιδιωτικές αρχαιολογικές συλλογές* (pp. 197-201). Athens.

Gilmour, G. H. (1997). The Nature and Function of Astragalus Bones from Archaeological Contexts in the Levant and Eastern Mediterranean. *Oxford Journal of Archaeology 16.2,* 167-175.

Graf, F. (2005). Rolling the Dice for an Answer. In S. I. Johnston & P. T. Struck (eds.) *Mantikê. Studies in Ancient Divination. Religions in the Graeco-Roman World, Vol. 155* (pp. 51-97). Brill.

Håland, E. J. (2023). Women, Pilgrimage, and Rituals of Healing in Modern and Ancient Greece. A comparison. Cambridge Scholars Publishing.

Hägg, R. (1981). Official and Popular Cults in Mycenaean Greece. In R. Hägg & N. Marinatos (eds.) Sanctuaries and Cults in the Aegean Bronze Age (pp. 35-40). Paul Astrom Forlag.

Hughes-Brock, H. (1999). Mycenaean Beads: gender and social context. *Oxford Journal of Archaeology 18.3,* 277-296.

Iakovidis, S. (1964). An inscribed Mycenaean amulet. *Kadmos 3.2,* 149-455.

Iakovidis, S. (1969-1970). *Περατή. Το Νεκροταφείον, τόμοι Α- Γ.* Athens.

Immerwahr, S. A. (1971). *The Athenian Agora. The Neolithic and Bronze Ages. Volume XIII*. American School of Classical Studies at Athens.

Karetsou, A. (1977). Το Ιερό Κορυφής Γιούχτα. *Praktika tis en Athines Archaiologikis Etaireias,* 419-420.

Kavvadias, P. (1912). *Περί* τών *έν Κεφαλληνία ανασκαφών. Praktika tis en Athines Archaiologikis Etaireias, 247-268.*

Kilian, K. (1988). Mycenaeans Up to Date, Trends and Changes in Recent Research. In E.B. French & K. A. Wardle (eds.) *Problems in Greek Prehistory* (pp. 115-152). Bristol Classical Press.

Konsolaki-Giannopoulou, E. (2003). Ταφές Νηπίων στο Μυκηναϊκό Ιερό του Αγίου Κωνσταντίνου στα Μέθανα. In E. Konsolaki-Giannopoulou (ed.) *ΑΡΓΟΣΑΡΩΝΙΚΟΣ* (pp. 257-74). Athens.

Konstanti, K. (2023). Μηνοειδή περίαπτα στο προϊστορικό Αιγαίο. In P. Viglaki, N. Daskalakis, E. Kapranos & E. Maurikou (eds.) *Aellopos. Studies in honour of Iris Tzachili* (pp. 344-357). Ta Pragmata.

Konstantinidi, E. (2001). *Jewellery revealed in the burial contexts of the Greek Bronze Age*. Archaeopress.

Kopanias, K. (2012). Raw material, exotic jewellery or magic objects? The use of imported Near Eastern seals in the Aegean. In M-L. Nosch & R. Laffineur (eds.) *KOSMOS. Jewellery, Adornment and Textiles in the Aegean Bronze Age Aegeaum 33* (pp. 397-306) Liège.

Kotansky, R. (1991). Incantations and Prayers for Salvation on Inscribed Greek Amulets. In A. Faraone & D. Obbink (eds.) *Magika Hiera: Ancient Magic and Religion* (pp. 107-137). Oxford University Press.

Kotansky, R. (2019). Textual Amulets and Written Traditions in the Ancient World. In D. Frankfurter (ed.) *Guide to the Study of Ancient Magic* (pp. 507-554). Brill.

Koutroumbas, D. C. (2014). Η Φαρμακευτική Χρήση Γαιών, Πετρωμάτων και Μεταλλευμάτων κατά τον Γαληνό της Περγάμου. *Deltos 43*, 17-30.

Krzyszkowska, O. (2016). Warding off Evil: Apotropaic practice and imagery in Minoan Crete. In E. Alram-Stern, F. Blakolmer, S. Deger-Jalkotzy, R. Laffineur & J. Weilhartner (eds.) *METAPHYSIS. Ritual, Myth and Symbolism in the Aegean Bronze Age. Aegeaum 39* (pp. 115-122). Vienna.

Laffineur, R. (1992). Iconography as evidence of social and political status in Mycenaean Greece. In: R. Laffineur & J. L. Crowley (eds.) ***ΕΙΚΩΝ.*** *Aegean Bronze Age Iconography: shaping a methodology. Aegeaum 8* (pp. 105-111). Liège.

Lambropoulou, E. (2024). Reliefs from Ancient Messene: The Motif of the Open Hand. In M. Spathi, M. Chidiroglou & J. Wallensten (eds.) *Apotropaia and Phylakteria: Confronting Evil in Ancient Greece* (pp. 109-118). Archaeopress.

Maran, J. (2013). Bright as the Sun: the appropriation of amber objects in Mycenaean Greece. In H. P. Hanh & Weiss, H. (eds.) *Mobility, Meaning and the Transformation of Things* (pp. 147-169). Oxbow Books.

Marinatos, S. (1932). "Αἱ ἀνασκαφαὶ Goekoop εν Κεφαλληνία». *Archaiologiki Ephimeris 32*, 1-47.

Marinatos, S. (1933). "Αἱ εν Κεφαλληνία ἀνασκαφαὶ Goekoop 2". *Archaiologiki Ephimeris 33*, 68-100.

Merkouri, C. (2010a). Τα πρώτα αντιβασκάνια: χειρονομίες και εμπτυσμός. In C. Merkouri (ed.) *Βάσκανος Οφθαλμός. Σύμβολα μαγείας από ιδιωτικές αρχαιολογικές συλλογές* (pp. 25-32). TAPA.

Merkouri, C. (2010b). «Φυλακτήριον εκκρέμαται τοις παιδίοις. Οι μαρτυρίες των χοών» In C. Merkouri (ed.) *Βάσκανος Οφθαλμός. Σύμβολα μαγείας από ιδιωτικές αρχαιολογικές συλλογές* (pp. 77-86). TAPA.

Mylonas, G. (1953-1954). «Μυκηναϊκή παιδική ταφή Ελευσίνος». *Archaiologiki Ephimeris*, 35-44.

Mylonas, G. (1973). Ο Ταφικός Κύκλος Β των Μυκηνών. En Athenes Archaeologiki Etairia.

Muskett. G. (2009). Rites of Passage for Young Children in Mycenaean Greece. *Childhood in the Past 1.1,* 38-48.

Nikolaidou, M. (2020). Blessed(?) Charms: The Figure-Eight Shield in the Aegaean Arts of Personal Adornment. In Davis, B. & R. Laffineur (eds.) *Neôteros: Studies in Bronze Age Aegean Art and Archaeology, Aegeaum 44* (pp. 181–192). Peeters Leuven.

Papadaki, C. (2023). Σκέψεις γύρω από την αποτροπαϊκή λειτουργία των ενεπίγραφων μινωϊκών κοσμημάτων. *Fortvnatae* 37.1, 49-58.

Phialon, L. (2022). Amulets, Gaming Pieces, Toys or Offerings? Thoughts on Animal Figurines and Funerary Practices in the Late Bronze Age Aegean. *Board Game Studies Journal 16.1,* 9–50.

Pomadère, M. (2012). Dressing and Adorning Children in Aegean Bronze Age: Material and Symbolic Protections as well as Marks of an Age Group? In M-L. Nosch & R. Laffineur (eds.) *KOSMOS: Jewellery. Adornment and textiles in the Aegean Bronze Age. Aegeaum 33* (pp. 433-439). Peeters Leuven.

Riddle, J. (1992). *Contraception and Abortion from the Ancient World to the Renaissance*. Harvard University Press.

Sakellarakis, I. (2009) ***Αρχάνες.*** Editions Lampraki.

Smith, R. A. K and Dabney, M. K. (2012). Children and Adornment in Mycenaean Funerary Ritual in Ayia Sotira, Nemea. In M-L. Nosch & R. Laffineur (eds.) *KOSMOS: Jewellery. Adornment and textiles in the Aegean Bronze Age. Aegeaum 33* (pp. 441-446). Peeters Leuven.

Souyoudzoglou-Haywood, C. (1999). *The Ionian Islands in the Bronze Age and Early Iron Age 3000-800 BC*. Liverpool University Press.

Tamvaki, A. (1974). The Seals and Sealings from the Citadel House Area: A Study in Mycenaean Glyptic and Iconography. *Annual of the British School at Athens 69*, 259-293.

Townsend. E. D. (1955). A Mycenaean Chamber Tomb under the Temple of Ares. *Hesperia XXIV*, 187-219.

Vetters, M. (2011). 'Thou Shalt make Many Images of Thy Gods'. A Chaine Operatoire Approach to Mycenaean Religious Rituals Based on Iconographic and Contextual Analyses of Plaster and Terracotta Figures". In A. Brysbaert (ed.) *Tracing Prehistoric Social Networks through Technology. A Diachronic Perspective on the Aegean* (pp. 30-47). Routledge.

Weingarten, J. (2013). The Arrival of Egyptian Taweret and Bes[et] on Minoan Crete: Contact and Choice. In L. Bombardieri, A. D'Agostino, G. Guarducci, V. Orsi & S. Valentini (eds.) *Identity and Connectivity* (pp. 371-378.) Archaeopress.

Wilkie, N. C. (2000-2001). Stone Beads and Sealstones from the Mycenaean Tholos Tomb at Nichoria, Greece. *Beads 12-13*, 7-16.

Younger, J. G. (1977). Non-sphragistic uses of Minoan-Mycenean sealstones and rings. *Kadmos I*, 141-159.

Zaccai M., L. Yarmolinsky, B. Khalfin, A. Budovsky, J. Gorelick, A. Dahan & S. Ben-Shabat. (2020). Medicinal Properties of *Lilium candidum* L. and Its Phytochemicals. *Plants 2020, 9, 959* doi:10.3390/plants9080959

FUNERAL WREATHS AND THE REPRESENTATIONS OF MEDUSA IN THE ARCHAEOLOGICAL RESEARCH AT *CALLATIS*

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Summary
The ancient city of *Callatis* (Mangalia, Romania) was founded in the VIth century BC by the Greeks from Heraclea Pontike and became one of the most important cities on the western coast of the Black Sea. The city's development is also proven by the funeral finds, influenced by Macedonian funerary customs and traditions, among which the laying of wreaths in tombs is an important feature. Several wreaths have been found at *Callatis*, consisting of a circular lead or bone support, gilded bronze leaves and gilded ceramic beads tied with bronze threads. This tradition, adopted from the Macedonians, has multiple symbolic meanings. It signifies the deceased's elevated social status, heroic status, and the presentation of the deceased as a victor. Additionally, it serves as a gesture of respect, love, and affection from their family and friends. *Callatis* was also an important centre for the production of ceramic statues of the Tanagra type and ceramic medallions with various representations of deities. Among these medallions are the ceramic disks with the representation of Medusa fixed on funerary wreaths, which are undoubtedly amulets. Amulets with the image of Medusa are used to enhance qualities such as power, victory, wealth, or love; however, in this case, they were used to protect the deceased in the other world.

Keywords: *Callatis*, gilded wreaths, Medusa

The ancient city of *Callatis* was founded by Greek colonists from Heraclea Pontica at the end of the VIth century BC, according to the information provided by Pseudo-Skymnos, during the reign of the Macedonian king Amyntas I (540-498 BC). The city developed massively starting from the IVth century BC, becoming one of the most important cities on the west-pontic coast. The city's involvement in the events of this period, the rebellion against Lysimachus, who became king of Thrace after the death of Alexander the Great, and the conflict with Byzantium for control of the *emporion* of Tomis (Constanţa) from the mid-IIIrd century BC., proves the integration of *Callatis* into the sphere of interests of the great powers in this area. A new stage began in the Ist century BC, when the rising influence of Rome was manifested in the Black Sea basin, illustrated by the treaty of alliance, preserved until today, between *Callatis* and the new Roman power, but quickly neutralized by the determined intervention of Mithridates VI Eupator. During the conflict with Mithridates, the Romans undertook a new expedition on the western coast of the Black Sea, led by M. Licinius Terentius Varro, the proconsul of the province of Macedonia, to conquer the Pontic cities, among which was the city of *Callatis*, in 72/71 BC. After the Roman conquest, the financial taxes that were imposed on the Greek cities and indigenous inhabitants by the new governor, Caius Antonius Hybrida, caused a widespread revolt, which ended Roman rule after only ten years and left the way open for Burebista, the ruler of the Dacians. After the end of the civil wars that broke out after the death of Caius Iulius Caesar, the Romans returned to the Lower Danube through the expedition led by M. Licinius Crassus in 29/28 BC, which laid the foundations of Roman domination for about 600 years. *Callatis* became one of the most important cities on the western coast of the Black Sea (Alexandru, 2024; Preda, 1968; Avram, 1999).
The city's development is also proven by the funeral finds.

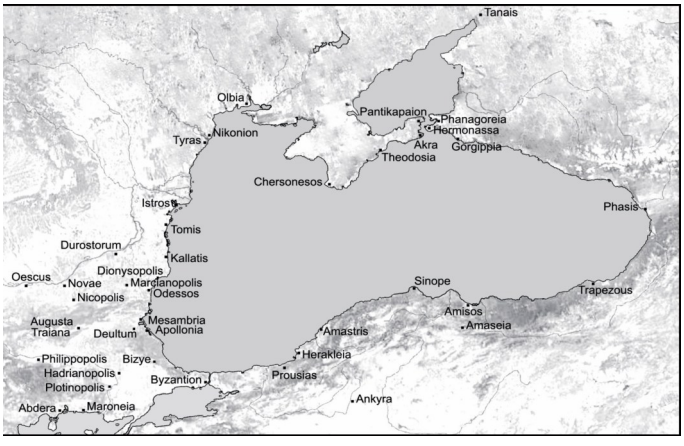

Figure 1. Map of the Black Sea (credit prof. dr. Costel Chiriac, Institutul de Arheologie Iaşi – Academia Română)

Catalogue of Funerary wreaths from *Callatis*

In 1959 a Hellenistic necropolis was discovered near the northern wall of the ancient fortress of *Callatis*. Among these discoveries, the Tomb of the papyrus stands out, today one of the most representative monuments of the city, a burial mound surrounded by a double-rowed stone ring (north-south diameter 13.55 m, east-west

diameter 14.20 m). To the west, there was a platform of limestone slabs, probably fragments of an altar, used for funeral or commemorative ceremonies. During the investigation of the mound, a grave was discovered, covered with three large limestone slabs, on which were eggshells and a fragmentary wreath of gilded bronze laurel leaves and gilded terracotta berries mounted on a bone circlet. Inside the tomb, a poorly preserved male skeleton was found, oriented east-west. Around the skull was a wreath similar to the one on the tomb, numerous grains of wheat, traces of cloth and remains of leather sandals. Fragments of papyrus were placed over the right hand and pelvis, wrapped in the form of a scroll about 30 cm long and 5 cm wide (Preda et al., 1962, p. 445–448; Preda, 1961, p. 295–297; Preda, 1968, p. 27). The text on the papyrus was in Greek and related to Persian history. It was possible to partially decipher the name "Xerxes" or "Artaxerxes", a name that can be associated with a series of kings who ruled the Persian Empire between 486 and 336 BC (Xerxes I (486-465), Artaxerxes I (465-424), Xerxes II (424), Artaxerxes II (404-359), Artaxerxes III (359-338), Artaxerxes IV (338-336)). According to the epigraphic features, the papyrus has been dated to the third quarter of the IVth century BC (Janko et al., 2021, p. 83–84), which is older than the tomb, and which has been dated to the last third of the IVth century BC (Preda et al., 1962, p. 448).

2. Platform of the Collective Cremation. At 9.50 m south of the Tomb of the papyrus, a collective cremation

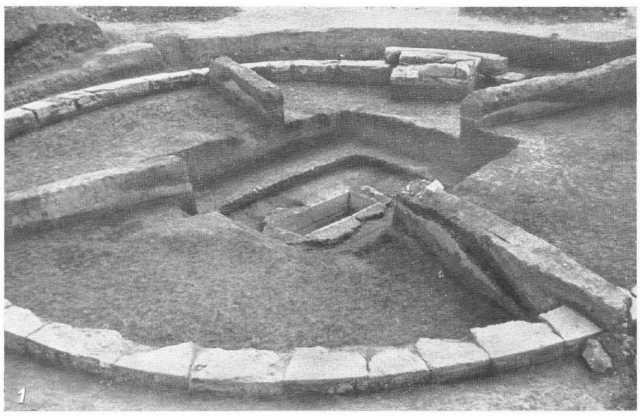

Figure 2. Tomb of the papyrus - photograph from archaeological research (apud Preda, 1961, 296)

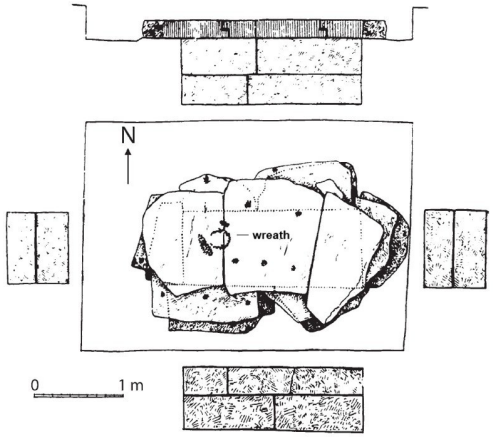

Figure 3. Tomb of the papyrus – tomb lid drawing (apud Pippidi 1967, 208)

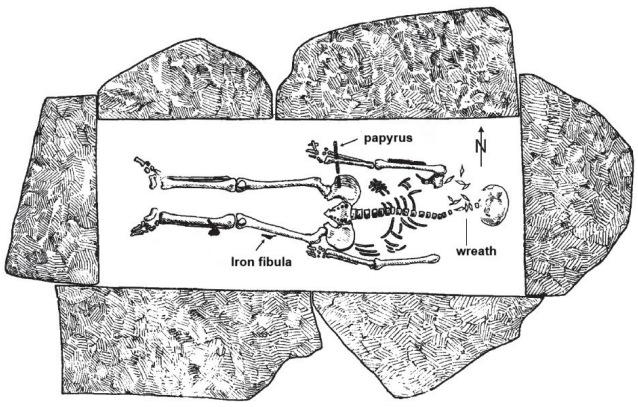

Figure 1. Tomb of the papyrus – drawing (apud Preda 1961, 297)

gravesite was unearthed. This grave consists of a structure measuring 12x6 m, constructed from limestone blocks, arranged in two rows with a height of 0.80 m. Inside, three cremation pyres were found, dug at -0.30/0.35 m from the ancient ground level. These pyres were rectangular in shape, 1.70/1.80 x 0.90 m in size, and oriented E-W. The ends of the pits enter under the stone construction, which shows that the construction was arranged after the cremation ceremony. This was done to fix the earth deposited above these graves, which were covered by a tumulus. A large amount of ash was discovered inside the pits, along with fragments of Hellenistic ceramic vessels and cremated human bones. The skulls were clearly facing east, and in two of the three tombs, there were wreaths made of gilded bronze leaves similar to those in the Tomb of the papyrus (Preda et al., 1962, p. 448–449).



Figure 5. Platform of the Collective Cremation (apud Preda 1968, fig. 11)

3. A stone cist tomb covered with two limestone slabs was discovered at the southwestern limit of the city between the small mosque and the railway in the southern necropolis. Inside was the skeleton of a man with the skull facing east, having in the area of the skull the fragments of a wreath formed by a lead frame, gilded bronze wires, gilded ceramic beads, gilded bronze leaves and gilded ceramic flowers with 4 and 6 petals painted in white or blue and with a gilded pistil (Preda, 1966, p. 142, fig. 4.1-3).

4. In the vicinity of the Tomb of the papyrus, another tomb (G 20), dated to the middle or third quarter of the

IVth century BC, of a girl of about 2 years of age in a wooden coffin, was investigated. This contained the components of a gilded wreath, consisting of a semicircular ceramic support with 10 alveoli for fixing bronze threads, seven gilded ceramic medallions depicting Medusa, with holes for attachment on the back, 22 small gilded grapes, 39 ceramic flowers with seven petals, 20 calotte-shaped buttons, another seven buttons in the shape of calottes, but covered with pearls, various gilded ceramic statuettes, some of which are considered to be garment decorations (Preda, 1961, p. 299, fig. 11-12; Lungu et al., 2012, p. 147, fig. 1). We agree with the subsequent interpretation by Elena Zavatin-Coman (Bârlădeanu) that some of these artefacts represent the components of a gilded wreath (Zavatin-Coman, 1972 a, p. 111) and others, the decoration of the wooden coffin (Mircheva, 2024, p. 289, fig. 13).

5. North of the Tomb of the papyrus was discovered G 16, a cremation tomb, where a Hadra-type *hydria* with polychrome decoration was used as a funerary urn, containing ashes and burnt bones, as well as fragments of a wreath similar to that in the Tomb of the papyrus (Preda, 1961, p. 299, fig. 17). The *hydria* was dated to the first half of the IIIrd century BC (Lungu, 2007, p. 32).

6. Another wreath (inv. no. 420) was discovered in a cremation tomb, placed on the neck of the bronze vessel used as a funerary urn. It consists of a lead frame, 25 gilded conical beads with bronze wires, 34 gilded ceramic discs depicting Medusa with two holes for attachment on the back, and 230 round beads (Zavatin-Coman, 1972b, p. 271, fig. 2.), dated from the third quarter of the IVth century BC to the beginning of the IIIrd century BC (Zavatin-Coman, 1972b, p. 279).

Archaeological research has revealed that such gilded wreaths are frequently discovered at *Callatis*. They consist of a lead or bone circle frame on which bronze leaves or gilded ceramic beads, or gilded flowers/ rosettes, are fixed with bronze threads. These gilded wreaths were local substitutes for the gold diadems that were widespread at the time and intended for the elites (Preda, 1966, p. 143).

Awarding of wreaths

In ancient Greece, the awarding of honours was for a long time a very important part of the political ritual of the polis. The origin of this practice must be sought in the democratic Athens of the Vth century BC, in the need to strengthen the loyalty of important citizens by honouring them, inspired by the field of athletic competitions (Wallace-Hadrill 1990, p. 151). One of the most important honours that a city could bestow on a person was the public coronation or *stephanosis*, which began at the end of the Vth century BC. The first decree commemorating a public stephanosis was granted by the Athenians to Thrasyboulos of Calydon for the murder of Phrynikos in 410/409 BC. Later this honour was extended to friendly kings, foreign benefactors, etc., and from the second half of the IVth century BC it was also granted to Athenian citizens. Among those entitled to wear the crown were the nine archons and the members of the Athenian Council. The Council and the Assembly of Athenians could vote for such honours, but so could the demes, tribes, phratries, genē or other clubs and associations *thiasōtai* or *orgeōnes*. It seems that almost any of the groups listed could vote for a crown for a member who had distinguished himself by his actions, in order to honour deserving individuals and to promote group cohesion and identity (Scafuro, 2009, p. 63–64; Wallace-Hadrill, 1990, p. 150–151). Magistrates wore myrtle crowns as a badge of office, and at the end of their term of office they could receive gold crowns as a reward for their work (Scafuro, 2009, p. 61–62). The most important of these crowns was the gold one, which was worth between 500 and 1000 silver drachmas, a very high value, but it was honorary, the person who received it was obliged to return it as a dedication to the gods (Connely, 2007, p. 204; Wallace-Hadrill 1990, p. 150–151). Initially reserved for outstanding political or military figures, from the second half of the IVth century it was also awarded to priests, who were allowed to wear it permanently, and to private individuals who performed certain religious ceremonies. Later, women priests began to receive this honor (Connely, 2007, p. 204; Wilson, 2011, p. 31–32): for example, Timokrite, a priestess at the sanctuary of Aglauros, received a wreath of olive leaves from the council and the assembly of citizens in the mid-IIIrd century BC for her exemplary performance of her duties (Pilz, 2013, p. 157–158). In the Hellenistic period, women were no longer required to be priestesses, but only to contribute substantially to the welfare of the city in order to receive this honour (Connely, 2007, p. 205). This honour rewarded benefactions, actions that went beyond the duties of a good citizen, and over time it was devalued by granting it to magistrates, priests, organizers of public games, women, ephebes or even children (Wallace-Hadrill, 1990, p. 150–151).

The role of wreaths

The role of wreaths was complex and multidimensional, with their many meanings can be seen in all cycles of human life such as birth, marriage, victory and death. The wreath also symbolizes fertility, abundance, but also the eternal succession of life and death. In the Greek world they had mainly a ceremonial role, used primarily for religious festivals, religious processions, sacrifices, weddings or banquets. Depending on the plant used or imitated, wreaths were associated with specific gods: ivy with Dionysos, laurel with Apollo, oak with Zeus and myrtle with Demeter, Persephone and Aphrodite, olive with Demeter and Herakles (Mitsani, 2019, p. 105). Wreaths are made of flowers and leaves sometimes resembling the crown, but not suggesting monarchy in this case, just honours bestowed temporarily, combining

the significance of the circle with the vitality of the plants. They are offered as gifts at funerals, symbolizing permanence and continuity (Biedermann, 1992, p. 389). Sometimes they imitate the natural wreaths made from various plants used in religious ceremonies or given to winners in athletic games. Others were awarded to magistrates who distinguished themselves through their efforts in the service of the community, to the winners of musical contests, or were dedicated in temples to the gods by fervent worshippers. The earliest surviving crown is made of bronze and was found in the sanctuary of the goddess Artemis Orthia at Sparta, dating from the VIIth century BC. Gold wreaths are mentioned in literary sources from the second half of the Vth century BC, but gold wreaths representing various plants: myrtle, oak, ivy, olive, laurel, have survived only from the IVth century BC. Simple diadems of gold or silver leaf were worn by women as ornaments. The wreath or diadem is also the main component of the bride's accessories (Ignatiadou & Chatzpanagiotou, 2018, p. 267).

The crown signifies integration into a celestial world, indicates the wearer's eroticized superhuman nature, and is a solar symbol. The laurel wreath offered to the victor also signifies a spiritual victory, and may be a sign of initiation (Evseev, 1994, p. 46). In everyday life, wreaths were worn by priests and participants in certain religious ceremonies, drinking parties, and initiates of the Eleusinian, Orphic, and Dionysian mysteries at their secret ceremonies (Ignatiadou & Tsigarida 2011, p. 4).

The meaning of gold

Gold is widely regarded as a solar symbol and personification of perfection, royalty and divinity. It is associated with immortality, knowledge, cosmic intelligence, has apotropaic and healing properties and symbolises good luck, wealth and power. Gold was considered a sign of wealth, but it also symbolised power, authority and status, and was the attribute of kings among the Thracians (Bonfante, 2022, p. 938).

Funeral wreaths

Wreaths represented an important element among the offerings laid in the grave in the funerary basket, usually containing besides wreaths, *lekythoi*, *hydria* or *alabastra* and food, mainly fruit, but sometimes eggs and cakes. Wreaths were also intended to decorate the grave, placed on the steps of the grave, hung on the stele, or on the ground near the grave, with the intention of appeasing the deceased by strictly following funeral prescriptions (Oakley, 2004, p. 203–205). The deposition of wreaths along with the proper burial and grave cult, had been regarded as an obligation and gift of honor, which had to be fulfilled by the relatives, family or the polis, because neglecting these things attracted the wrath of the dead (Blech, 1982, p. 107). In the ancient Greek world, the preparations for burial or cremation closely resembled those for a wedding ceremony. The deceased was accompanied by personal jewellery, various heirlooms, even if they were older and did not match the date of death, and wreaths with which they were awarded during their lifetime. These could be gilded wreaths of various materials or natural plant wreaths. Myrtle wreaths were particularly favoured due to its association with Aphrodite, myrtle being the sacred plant of goddess and a symbol of immortality. The funeral ritual also involved the deposition of funerary jewellery, crafted specifically for this purpose from thin sheets of gold or silver, non-perishable materials that symbolised the soul's immortality (Ignatiadou & Chatzpanagiotou, 2018, p. 278).

Gold wreaths began to be used in the Greek world in the late Vth century BC, and widely in the third and fourth quarter of the IVth century BC. The area where they were discovered is very wide, but limited to peripheral regions: Magna Graecia, Macedonia, the Bosporan kingdom and the Aegean coast of Asia Minor. In Athens, even though they are mentioned in many honorary decrees, they seem to have been replaced by cheap vegetable or wax surrogates, as an effect of the laws against luxury (Blech, 1982, p. 92). From the second half of the IVth century to the first quarter of the IIIrd century BC, there was a sharp increase in the number of tombs with gold and gilded wreaths in the funerary inventory in the Greek world. This increase was observed in vast areas from Thessaly to southern Italy, Asia Minor, Cyprus, and the Black Sea region, including the western Pontic Greek poleis: Apollonia Pontica, Messambria, Odessos, *Callatis*, Tomis, areas with strong Hellenistic communities (Pencheva, 2022, p. 71; Asderaki & Rehren, 2002, p. 19), discovered in both male and female tombs. Featuring an elaborate and luxurious character, with rich floral decoration, together with branches, twigs and berries, they signify the wealth and luxury of Hellenistic art. Following the first quarter of the IIIrd century BC, these wreaths underwent a simplification in design, assuming a diadem-like form with a minimalist arrangement of leaves, a style that would subsequently find expression in Roman time (Ignatiadou & Tsigarida 2011, p. 4).

Wreaths were regarded as exceptional works of art, serving to denote the religious, political and social status of the deceased. They were also used to symbolise the esteemed place that the deceased was believed to occupy in the afterlife. Some wreaths, due to the manner of their fabrication and their lack of structural stability, were not utilised in daily life, but were intended exclusively for funerary use. Others, on the contrary, show signs of long use or even repair. There are two diametrically opposed opinions about gold-plated wreaths: according to some authors, they were not used in everyday life because of their fragility, and are considered gifts from the deceased's relatives; according to another opinion, they were common objects used in everyday life, but at a much lower price than gold ones.

Another opinion was that the gold crowns belonged to the deceased and that the gilded wreaths represented gifts from his relatives (Mitsani, 2019, p. 107; Mircheva, 2024, p. 290).
Wreaths were found in both cremation and inhumation graves. In cremation graves, wreaths were placed on the neck or shoulder of the urn. In inhumation graves they were found around the skull or placed inside or on top of the coffin.
The central element of these wreaths is a circular support made of bone, wood, metal - lead was also gilded - to which various decorative elements are attached directly or by means of bronze wires: leaves gilded, branches made of bronze wires, gilded ceramic flowers or fruits. In addition, fragments of fabric, probably linen, have sometimes been identified which were used for the inside of the circular support (Asderaki & Rehren 2002, p. 20–21).

The significance of plants for wreaths

The laurel, the plant of immortality and personification of glory, and military, sporting or spiritual victory, was the tree dedicated to Apollo, and its leaves were used to create wreaths to adorn the heads of heroes, geniuses and wise men. Its strong, aromatic scent was used as a means of purification. Later the laurel became a symbol of respect, victory and fame. An evergreen plant, it is planted on graves and placed on coffins as a symbol of the immortality of the soul (Evseev, 1994, p. 86; Baumann, 1993, p. 50).
With its evergreen leaves, elegant flowers and pleasant fragrance, myrtle symbolised beauty and youth. It was consecrated to Aphrodite and used to decorate temples, shrines and altars. It is under the protection of Aphrodite, the goddess of love, and is associated with marriage through the bride's wreath of myrtle (Baumann, 1993, p. 51). Along with olive, myrtle was particularly used in the cult of the dead. They were crowned with myrtle wreaths and their graves were decorated with myrtle. Myrtle had a special significance because of its use in the cult of Demeter and Kore and their mysteries, as a symbol of hope and protection (Blech, 1982, p. 94). Sometimes myrtle wreaths were worn at symposium to ward off the effects of alcohol (Baumann, 1993, p. 54).

Analogies with wreaths found in *Callatis*

In Macedonia, golden wreaths have been found in the tombs of aristocrats, royal companions and members of their families. They were considered to be personal possessions that accompanied the deceased into the afterlife and played an apotropaic role during the long journey to Hades (Ignatiadou & Tsigarida, 2011, p. 4). In the tomb of a macedonian aristocrat at Sfendami of Pieria, a golden wreath of blossoming myrtle was discovered, dated to 350-325 BC (Ignatiadou & Tsigarida, 2011, p. 4, cat. 3), whose flowers are very similar to those found in our no. 4 at *Callatis*. Other similar wreaths imitating myrtle and its flowers, the sacred plant of the goddess Aphrodite and symbol of immortality, were found in the tomb of a scholar and warrior dated 350-325 BC. At Derveni, a myrtle wreath with flowers and spherical berries, dated 350-325 BC, was found in the tomb of a member of the aristocracy (Ignatiadou & Tsigarida, 2011, p. 4, cat. 5; Dági, 2020, p. 73–104). At Vratza in Bulgaria, a pure gold crown was discovered in the tomb of a Thracian princess (Ovcharov, 2005, p. 37–39).
Funerary wreaths made of gilded clay became a popular attribute in the necropolis of the Western Pontic colonies towards the end of the IVth century BC, as a cheap alternative and imitation of aristocratic funerary traditions imported from Macedonia, and an indicator of the aristocracy's special social status by emphasizing their origin and legitimacy (Mircheva, 2024, p. 289–290). From the second half of the IVth century BC and the beginning of the IIIrd century BC, both golden and gilded clay wreaths are found, sometimes in the same grave. They also appear in women's tombs. Analysis of the funerary inventory suggests that this represented a tradition related to the participation of the deceased in the funeral banquet (Pencheva, 2022, p. 76).
At Parion (Turkey) three gilded wreaths have been discovered in stone cist tombs (cat. 1-3), composed of a circular lead support, bronze leaves and wires, and terracotta fruits, gilded by amalgamation technique, dated to the late 4th and early IIIrd century BC (Çelıkbaş, 2019, p. 249–250, fig. 11-20). The first of these consists of a circular lead support only partially preserved, gilded bronze leaves and 22 terracotta gilded grains in the form of raspberries and blueberries, and the second was found near the pelvis of a man's skeleton, with 21 terracotta grains and bronze threads (Çelıkbaş, 2019, p. 242–244). An interesting fact that helps to determine the function of the gilded wreaths is their position: in the grave TSM 12, a golden crown was found in the skull area and a gilded terracotta wreath in the pelvis area, which proves that the latter were grave gifts, produced especially to reduce the costs incurred by the relatives of the deceased, who had to perform the necessary rites (Çelıkbaş, 2019, p. 247). The gilded wreaths represented a specifically Macedonian grave gift, a grave gift found only in Macedonian burial traditions and not in the Anatolian area (Çelıkbaş, 2019, p. 248). Research has shown that Parion maintained extensive and intense relations with Macedonia and Thrace so it is possible that these tombs belong to Macedonian or Thracian families who imported these gilded terracotta wreaths from Macedonia (Çelıkbaş, 2019, p. 249).
In the necropolis of the town of Apollonia Pontica (Sozopol, Bulgaria) in the tomb of a woman, excavated in the Kissir Mikhail Tepe mound, several wreaths were discovered, one of which consists of a circular bone support on which gilded bronze leaves and gilded ceramic balls were attached with wires. Another one has

a wooden band doubled by a lead one, on which gilded ceramic flowers and spherical or elongated gilded ceramic balls were attached with metal wires. A further 35 gilded ceramic buttons were found, also from these wreaths. The tomb has been dated to the last quarter of the 4th and first quarter of the IIIrd century BC (Baralis et al., 2019, p. 309–310, fig. 1–14). Another wreath with a lead support on which 44 ceramic balls were fixed with bronze wires was also found there (Baralis et al., p. 469–471, cat. 362 and cat. 546). In the Kalfata necropolis, which belongs to the city of Apollonia Pontica, a wreath with a lead band was discovered, on which gilded bronze leaves, gilded ceramic flowers with six petals and gilded ceramic berries were attached with gilded bronze wires (Hermary et al., 2010, p. 255, pl. 47, c).

In the Golyama Kosmatka mound (near Kazanlak, Bulgaria), elements of a wreath with a ceramic base, gilded ceramic flowers, gilded ceramic rosettes, gilded ceramic pearls, were discovered in a complex dated to the last quarter of the IVth century BC (Martinez et al., 2015, p. 122, cat. 83).

At Odessos (Varna, Bulgaria), in a female tomb dated to the late 4th and early IIIrd century BC was discovered a funerary wreath composed of a fragmentary lead support, gilded copper ivy leaves, 47 round gilded clay balls, 20 conical gilded clay fruits and bronze wires for their attachment. At Odessos other gilded wreaths were also discovered, a total of 17 specimens in various stages of preservation, consisting of a support/frame of lead or various organic materials and gilded leaves of laurel or ivy (Mircheva, 2024, p. 289, fig. 14–15).

A fragmentary crown, comprising a lead framework to which gilded bronze laurel leaves had been attached, was discovered in the necropolis of the city of Dionysopolis (Baltchik, Bulgaria) (Damyanov, 2003, p. 28).

At Tomis (Constanţa, Romania), in the necropolis of the city, several tombs published by M. Bucovală have been excavated, in which pieces from wreaths were found: cat. 8, a fragmentary bronze frame dated to the late 4th and early IIIrd century BC, cat. 30 cremation grave with various clay beads and berries, bone fragments probably from circular support, dated to IIIrd–IInd century BC; cat. 33, gilded ceramic ornaments, bronze leaf fragments, bronze nails, dated to late IIIrd and early IInd centuries BC; cat. 34 spherical clay beads and from the second century BC; cat. 37, cremation tomb ceramic ornaments, hemispherical, decorated with red paint, with attachment holes from the IInd century BC; cat. 38 - an investigation into a cremation grave revealed the presence of a bronze diadem fragment dating back to the IInd century BC (Bucovală, 1967, p. 19, p. 41–42, p. 43, p. 47–51, p. 52–61). Despite the potential for future research to contradict this assertion, the currently available evidence suggests a consistent use of gilded crowns at Tomis.

At *Callatis*, an important centre of the art of statuary of the Tanagra type, these funerary wreaths acquired special characteristics by the addition of ceramic medallions with Medusa's face. These gilded ceramic disks are found throughout the Greek world, but never in such large numbers as at *Callatis*, used to compose a single wreath. In these wreaths, the meaning of the plants changed to focus on Medusa's protective power during the long journey of the deceased to the realm of Hades. Medusa as a deity has its deep origins in the pre-Greek world, in the ancient agrarian communities. Some specialists believe that Medusa, as an ancient Indo-European goddess, has two aspects: the fearful one, similar to the unleashed nature, from which the ability to repel evil and demonic powers and protect against them comes, and the other nature is friendly, merciful, generous, mother-like, loving and caring for all living creatures (Zolotnikova, 2016, p. 359). According to other opinions, these deities were introduced into the Greek world from the Near East and Egypt in the late VIIIth and VIIth century BC, often depicted as monsters or demons, with a wide repertoire of theriomorphic creatures, combining human and animal features and fantastic additions. Endowed with protective powers, these figures acted as talismans or amulets to ward off evil and were frequently represented on funerary monuments, sacred architecture, military equipment, drinking vessels and luxury items (Karaglou, 2018, p. 4; Spathi, 2024, p. 95).

The Gorgons, a term denoting the three sisters, Stheno, Euryale, and Medusa, were offspring of the sea deity Phorcys and his sister Keto, a chthonic monster. Representations of the Gorgons, primarily Medusa, derived from oriental models, emerged in Greek art during the mid-VIIth century. These representations served a protective function and were associated with the Medusa myth from their inception (Robertson, 1981, p. 16; Wilk, 2000, p. 21). The evolution of the iconographic representation of Medusa can be categorized into three distinct phases. The initial phase, designated as the archaic or grotesque type, encompasses the period from the VIIth to the Vth centuries BC. The subsequent phase, referred to as the middle or transitional type, extends from the late Vth century BC to the IInd century BC. The final stage, the late or beautiful/attractive type, emerged gradually after the IVth century BC. During this period, Medusa's depiction shifted from her previous role as a monster to that of an attractive young woman. In Roman times, Medusa's facial features became rounder and more voluptuous, and she began to exhibit a melancholic expression (Wilk, 2000, p. 31–35).

Catalogue of finds of ceramic medallions depicting Medusa at *Callatis*

1 - In a cremation grave consisting of a limestone block carved into an ovoid shape, a bronze *kalpis* vessel was found, along with fragments of a wreath that had originally been placed on the shoulder of the vessel. The wreath was composed of 34 ceramic discs, 2 cm in

diameter, with the face of Medusa of the *gorgonéion* type covered with gold leaf on one side, the other side slightly domed, provided with two small holes for the passage of the bronze wire from the lead-framed funerary wreath, on which the ceramic discs and gilded ceramic beads were fixed. The whole complex has been dated to the third quarter of the IVth century and early IIIrd century BC. Bibliography: Zavatin-Coman, 1972a, p. 103–116. Figure 5–8 (*Callatis* Museum - nr. inventory 420).

2 - In the necropolis near the Stadium, in a burial tomb belonging to a girl of about two and a half years old, in a wooden coffin protected with tiles, two ceramic vessels, three alabasters, various gilded ceramic ornaments that decorated the girl's dress, gilded ceramic toys, and pieces of a wreath were discovered. The wreath consisted of seven ceramic medallions with the figure of Medusa, surrounded by a circle of pearls, conical and round gilded ceramic beads, bronze threads and found together with a circular clay frame, dated IVth-IIIrd century B.C. Bibliography: Preda, 1961, p. 275–303.



Figure 6. Funerary wreath (inv. no 420) (photo taken by the author)



Figure 7. Gilded ceramic disk (photo taken by the author)



Figure 8. The reverse of the ceramic disk (photo taken by the author)



Figure 9. Funerary wreath - detail with gilded ceramic fruits (photo taken by the author)

Conclusions

Alexander the Great bestowed gold crowns upon his most trusted collaborators, military commanders, and other distinguished soldiers who demonstrated exceptional valour in battle. These crowns served a significant purpose, namely to emphasize military virtues, victories, skill in battle, and excellence in combat (Arrian VII-5, 4-5). In this manner, a distinctive burial model for the warrior elite emerged during this period, largely based on the funeral ceremonies in Alexander's homeland, Macedonia. These traditions were adopted and adapted in various regions of the Greek world, including the west-pontic cities that were incorporated into the Macedonian Empire under the rule of Philip II.

The practice of dedicating funerary wreaths in tombs can be traced back to the Macedonian garrison in *Callatis*, which played a significant role in the region's cultural and architectural development. The presence of distinctive tombs constructed in the aristocratic Macedonian style, such as the Tomb of the papyrus, the Documaci Mound, and the Scythian Tomb, serves as tangible evidence of the presence of high-ranking Macedonian dignitaries in the region (Sîrbu, Ştefan, Ştefan, 2021, p. 314). This evidence substantiates the strategic significance of this area for the Macedonians.

References

Alexandru, N. (2024). *Callatis* oraş grecesc în ţinutul geţilor, Editura Mega.

Arrian (1983). Anabasis of Alexander, Volume II: Books 5-7, Indica. Translated by P. A. Brunt, Loeb Classical Library 269, Cambridge, MA: Harvard University Press.

Asderaki, E., & Rehren Th. (2002) A study of Hellenistic gilding practice and manufacture of funerary

wreaths, IAMS - Institute for Archaeo-metallurgical Studies, 22, 19-21.

Avram, Al. (1999). Inscriptions de Scythie Mineure III. *Callatis* et son territoire, Editura Enciclopedică.

Baralis, A., Chiekova, D., Chacheva, M., Delavaud-Roux, M-H, & Krumova, M. (2019). Sur les pas des archéologues. Apollonia du Pont. Collections du Louvre et des musées de Bulgarie (catalogue de l'exposition), Faber Publishing House.

Baumann, H. (1993). The Greek Plant World in Myth, Art and Literature, Timber Press.

Biedermann, H. (1992). Dictionary of Symbolism. Cultural Icons and the Meanings behind them, Penguin Books.

Blech M. (1982). Studien zum Kranz bei den Griechen, Walter de Gruyter.

Bonfante, L. (2022). Luxurious funerals and sumptuary laws. J. Boardman, J. Hargrave, A. Avram, A. Podossinov (Eds.), *Connecting the Ancient West and East. Studies presented to prof. Gocha R. Tsetskhladze*, Peeters Publishers, 935-950.

Bucovală, M. (1967). Necropole elenistice la Tomis, Muzeul Regional de Arheologie Dobrogea.

Connely, J. B. (2007). Portrait of a Priestess. Women and Ritual in Ancient Greece, Princeton University Press.

Dági, M. (2020). The Derveni wreath – 58 years after its discovery, Numismatica e Antichità Classiche, 49, Lugano: Quaderni Ticinesi, 73-104.

Damyanov, M. (2003). Early Hellenistic grave finds from the vicinity of Dionysopolis (on the bulgarian Black Sea coast), Archeologia Bulgarica, 7(2), 25-36.

Ersin Çelıkbaş, E. (2019). *Parion Güney Nekropolü'nde Bulunan Yaldızlı Terrakota Taçlar*. V. Keleş, H. Kasapoğlu, H. E. Ergürer, E. Çelıkbaş, A. Yılmaz (Eds.), Cevat Başaran'a 60. Yaş Armağanı – Essays for Cevat Başaran's 60th Birthday Occasion, Bilgin Kültür ve sanat, 241-262.

Evseev, I. (1994). Dicţionar de simboluri şi arhetipuri culturale, Amarcord.

Hermary, A., Panayotova, K., Baralis, A., Damyanov, M., & Riapov, A. (2010). Apollonia du Pont (Sozopol). La nécropole de Kalfata (Ve-IIIe s. av. J. -C.). Fouilles franco-bulgares (2002-2004), Centre Camille Jullian.

Ignatiadou, D., Chatzpanagiotou, A. (2018). Jewellery uses and Symbolism, from the Geometric to Roman Period. M. Lagogianni-Georgakarakos (Ed.), *The Countless Aspects of Beauty in Ancient Art. Exhibition Catalogue*, National Archaeological Museum of Athens, 265-280.

Ignatiadou, D., Tsigarida, E. B. (2011). Gold Wreaths and diadems, Archaeological Museum of Thessaloniki.

Janko, R., Colesniuc, S. M., Ionescu, M., & Pâslaru, I. (2021). Excavating and Conserving Europe's Oldest Books: A Papyrus from Mangalia on the Black Sea, *American Journal of Archaeology*, 125 (1), 65-89. https://doi.org/10.3764/aja.125.1.0065

Karaglou, K., (2018). Dangerous Beauty. Medusa in Classical Art, The Metropolitan Museum of Art Bulletin, 75(3), 4-27.

Lungu, V. (2007). Une hydrie du style de Hadra à décor polychrome de *Callatis*, *Revue des études sud-est européennes*, XLV(1-4), 23-35.

Lungu, V., Covacef Z., & Chera, C. (2012). Bijuterii antice din aur din colecţiile Muzeului de Istorie Naţională şi Arheologie Constanţa, Ex Ponto.

Martinez, J., Baralis, A., Mathieux, N., Stoyanos, T., & Tonkova, M. (2015). L'Épopée des rois thraces des guerres médiques aux invasions celtes 479-278 av. J. C. Découvertes archéologiques en Bulgarie, Musée du Louvre.

Mircheva, E. (2024). Early hellenistic Burial Tumulus of the Odessos Necropolis, *De Amicitia. Studia in Honorem Professoris Ivani Todorov*, 285-298.

Mitsani, S. (2019). ***Ο χρυσός στο βασίλειο της Μακεδονίας κατά τους πρώιμους ελληνιστικούς χρόνους***, unpublished Master's thesis, Aristotle University of Thessaloniki. https://ikee.lib.auth.gr/record/324164/files/GRI-2020-29133.pdf, (13.02.2025)

Oakley, J. H. (2004). Picturing Death in Classical Athens. The Evidence of the white lekythoi, Cambridge University Press.

Ovcharov, D. (2005). Fifteen treasures from Bulgarian lands, National Museum of Bulgarian. Books and polygraphy.

Pencheva, A. (2022). Late Classical and Hellenistic Burial Complexes with Gold and Gilded Clay Wreaths from Macedonia, Thrace, and the Necropoleis of the West Pontic Greek Poleis: A Comparative Analysis of Their Context. U. Kelp, W.-R. Teegen (Eds.), *Wealthy and Healthy? Methodological Approaches to Non-Élite Burials: Panel 1.2*, Heidelberg: Propylaeum, 2022 (Archaeology and Economy in the Ancient World: Proceedings of the 19th International Congress of Classical Arcaeology, Cologne/Bonn 2018, Band 1), 71-88. https://doi.org/10.11588/propylaeum.926.c12233

Pilz, O. (2013). The Profits of Self-Representation: Statues of Female Cult Personnel in the Late Classical and Hellenistic Periods, M. Horster, A. Klöckner (Eds.), *Cities and Priests. Cult personnel in Asia Minor and the Aegean islands from the Hellenistic to the Imperial period*, De Gruyter, 155-176.

Pippidi D. M. (1967). În jurul papirilor de la Derveni şi *Callatis*, Studii Clasice, IX, 203-210.

Preda, C. (1961). Archaeological Discoveries in the Greek Cemetery of *Callatis*-Mangalia (IVth-IIIrd

centuries before our era), *Dacia - Revue d'archéologie et d'histoire ancienne*, 5, 275-303.

Preda, C. (1966). Câteva morminte de epocă elenistică descoperite la *Callatis*, *Studii şi Cercetări de Istorie Veche*, 17(1), 137-146.

Preda, C. (1968). *Callatis*, Meridiane.

Preda, C., Popescu, Em., & Diaconu, P. (1962). Săpăturile arheologice de la Mangalia (*Callatis*), *Materiale şi cercetări arheologice*, 8, 439-455.

Robertson, M. (1981). A Shorter History of Greek Art, Cambridge University Press.

Scafuro, A., C. (2009). The crowning of Amphiaraos. L. Mitchell, L. Rubinstein (Eds.), *Greek History and Epigraphy. Essays in honour of P. J. Rhodes*, 59-86, The Classical Press of Wales.

Sîrbu, V., Ştefan, M., Ştefan, D. (2021). A Monumental Hellenistic Funerary Ensemble at *Callatis* on the Western Black sea. The Documaci Tumulus: volume I, Archaeopress Archaeology.

Spathi, M. G. (2024). The Interpretation of Clay Gorgoneion-Roundels in Sacral Contexts: Evidence from the Sanctuary of Artemis Limnatis at Ancient Messene, M. G. Spathi, M. Chidiroglou, & J. Wallensten (Eds.), *Apotropaia and Phylakteria. Confrunting Evil in Ancient Greece*, Oxford Archaeopress, 85-99.

Wallace-Hadrill, A. (1990). Roman Arches and Greek Honours: The Language of Power at Rome, *Proceedings of the Cambridge Philological Society*, 36, 143-181.

Wilk, St. (2000). Medusa. Solving the Mystery of the Gorgon, Oxford University Press.

Wilson, P. (2011). The Glue of democracy? Tragedy, structure, and finance. D. M. Carter (Ed.), *Why Athens? A Reappraisal of Tragic Politics*, Oxford University Press, 19-44.

Zavatin-Coman, E. (1972a). Un mormânt elenistic cu Kalpidă de la Mangalia, *Pontica*, 5, 103-116.

Zavatin-Coman, E. (1972b). La tombe grecque avec kalpis de Mangalia, *Dacia - Revue d'archéologie et d'histoire ancienne*, 16, 271-280.

Zolotnikova, O. (2016). A Hideous Monster or a Beautiful Maiden? Did the Western Greeks Alter the Concept of Gorgon? H. L. Reid, D. Tanasi (Eds.), *Philosopher Kings and Tragic Heroes. Essays on Images from Western Greece*, Parnassos Press – Fonte Aretusa, 353-370.

KNOTTED TO DEATH. HERAKLEAN KNOTS IN THE PUNIC NECROPOLIS OF GADIR.

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Summary
Under the modern city of Cádiz, ancient Gadir or Gades, there is a large necropolis corresponding to the Phoenician, Punic and Roman periods. This necropolis has been and continues to be partially excavated from the end of the XIXth century, and a large number of finds have been made since then. Nowadays, as a result of rescue archaeology, tombs of different types and chronology continue to be discovered, although after years of excavations, there is still only a very small number of scientific publications clarifying the funerary panorama of the ancient city. Focusing on the Punic period of the necropolis (from the end of the VIth century BC to the IIIrd century BC), among the jewellery found as part of the grave goods, several examples of the 'heraklean knot' have been identified. This motif, very common in eastern Mediterranean iconography, is not particularly common in western necropolises and deserves a specific approach to examine the eastern comparanda and the connections that led to its use in the Far West. The protective value of this symbol can be traced back centuries to its use in the necropolis of Gadir, in Egyptian iconography, in addition to being adapted in Greek iconography from the Archaic period. The presence of different types of amulet dedicated to protection and found in the tombs is a frequent feature in the necropolises; specimens have different forms and are made of diverse materials, indicating wide accessibility to these pieces by the people. This study concerns the heraklean knots found to date in the necropolis of Gadir, some of which are unpublished, together with their archaeological contexts. The knots have several factors in common; they were all found in inhumations, and they are all made in a similar way, fashioned in gold and forming elements of elaborate necklaces. With this study, which is part of the general research on the Phoenician-Punic necropolis, we aim to develop a better understanding of the funerary practices of this community and its relations with other sites in the Mediterranean.

Keywords: Necropolis, Jewellery, Amulets, Punic, Gadir.

Introduction

The necropolis of Gadir corresponds to the burial place of the Phoenician and Punic population, between the VIIth and IIIrd centuries BC, in the current city of Cádiz (Andalusia, Spain). The necropolis itself has a long history of excavations and previous research, although in general these are specific and isolated initiatives that have not given rise to a unitary discourse and -much less- to a connection with other relevant historical-archaeological data of this time period. The antecedents of more recent findings and research on this subject have testimonies of interest from the modern period (descriptions of findings by scholars of the 16th and 18th centuries - Suárez de Salazar, 1610; Acedo del Olmo et al., 1770).

The beginning of scientific historiography can be traced back to the discovery of a male anthropoid sarcophagus in 1887. A period of excavation with occasional associated publication then began, which was further stimulated from 1912 with the systematic work carried out by Pelayo Quintero Atauri (1867-1946) in the area outside the walls, in which he discovered numerous tombs from different periods and began to regularly generate memoirs and other publications (dealing early on with aspects such as the anthropological study of buried individuals). Quintero's work was interrupted by the Civil War in Spain, following which only a handful of emergency excavations took place, most of which were not subject to scientific study, but which permitted us to rescue some indications of interest about the pre-Roman necropolis.

After decades of developmentalism and urban progress in Cádiz during a time when archaeological controls were lacking, the resumption of rescue excavations in the 1980s stimulated a new flow of information. Once again, the discovery of an anthropoid sarcophagus from the Vth century BC (a female found in 1980; Blanco & Corzo, 1981) is identified as an essential milestone for the beginning of preventive archaeological work in the city, a system consolidated from the transfer of competences in culture to the Andalusian autonomy from 1985 onwards.

Since then, a large number of rescue archaeological activities have taken place (due to the lack of a systematic plan), most of them remaining unpublished, since legal regulations only require the production of a technical report of the excavations. Few studies have been published on the necropolis in recent decades. Those related to our thesis project include the works of Ramón Corzo (1992), Lorenzo Perdigones (1991), Ángel Muñoz (2000; 2008), the monograph of Perdigones et al., (1990), and some publications concerning specific materials like goldsmithing in grave goods, such as that of M.ª Luisa de la Bandera (Bandera et al., 2010), Alicia Perea (1992) or María Belén (2011).

The later necropolis, from the Hellenistic or late Punic period, which dates from the IIIrd century BC, coinciding with the 2nd Punic War and the subsequent Roman control of the city and the Iberian Peninsula, has received greater attention, giving rise to some recent syntheses (Niveau de Villedary, 2009). Most of the published works have focused so far on specific aspects such as the ritual nature of certain wells (Niveau de Villedary, 2001), and the presence of currency in burials (Arévalo & Moreno, 2017), etc.

Nowadays, urban interventions in the city of Cádiz continue to take place, although unfortunately very little is known (apart from the brief unpublished technical reports) about the results of those excavations. In most cases, the tendency has been to complete the excavation of the plots, deliver the mandatory reports and deposit the materials in the museum without further analysis of the results.

Therefore, we find ourselves in a situation in which the generation of field data on the topography and characteristics of funerary spaces and Phoenician-Punic rituals has been a continuous endeavour over the last forty years. Nevertheless, the pace of progress of systematic studies that compile information from the different excavations has been much slower and more irregular, gradually disconnecting from the analysis of other components of the settlement of *Gadir* and from its general historical-archaeological research.

The knot

Let us consider some general questions about this type of knot. At a basic level, this knot is called a "reef knot" and is used to tie the two ends of the same rope so that they are secured. Originally, in Classical Antiquity, this knot was known as Herakles' knot, or Hercules' knot in its Latin version. Here we have preferred the Greek nomenclature of the hero as it fits better with the chronology we are considering.

The heraklean or reef knot itself is formed by passing the two ends with half-knots and then tying them together again, one on top of the other (Figure 1). In the knot guide (Ashley, 1944: 220) they do not recommend using this knot with two different strands, as it can be unstable; it should only be used to tie together both ends of the same rope. It is usually used to tie isolated items such as bales or rolls, for example, the sails of a ship, or in the case of clothing, worn as a belt.

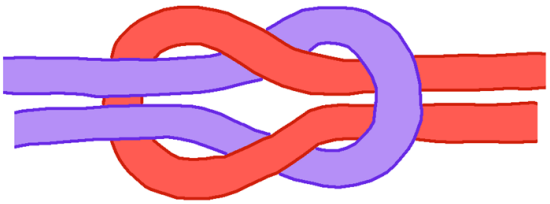

Figure 1. Outline of the arrangement of the Heraklean/Herculean knot.

In matters that interest us more with respect to the world of daily rituality in history, in the ancient world this element would have had an apotropaic function; it would provide amuletic protection for the wearer. The knot appears in Egyptian, Greek and Roman iconography (in very broad terms) in multiple variants.

It is an element present in Egyptian iconography as it even represents some hieroglyphs of its own, such as the sign included in Gardiner's *Egyptian Grammar* (1927, p. 506). This represents a knot and can be interpreted as the action of union or as something united, at least since the Middle Egyptian period (approximately between 2200 BC and 1300 BC). It is also an icon used as a protective amulet associated with funerary elements during the Middle Kingdom, in various types of jewellery (Andrews, 1994, pp. 44-45) or other elements, and also in representations of gods, even relating this knot to the so-called "Knot of Isis" (Wendrich, 2006: 248, 254). According to some Egyptian religious texts (Mahmoud, 2019, pp. 70-71) the bones of the deceased should be tied together, among other concepts of the afterlife, such as resurrection or eternity.

Similarly, in the Greek world, we can see how in archaic and classical statuary the knot is a common iconographic element, especially in clothing and hairstyles (Nicgorski, 1995; 2013), associated with an apotropaic function; this evokes the tie that Herakles and other heroes wear in the lion's skin which is tied around their necks (Nicgorski, 2005: 99-100). We also see examples of very elaborate jewellery depicting knots, especially from the Hellenistic period, but with a wide spatial distribution (Nicgorski, 2005, pp. 102-104).

As for some of the textual sources, Pliny the Elder (c. 23-79) says in his *Historia naturalis* of this type of knot:

> "It is quite surprising how much more speedily wounds will heal if they are bound up and tied with a Hercules' knot: indeed, it is said, that if the girdle which we wear every day is tied with a knot of this description, it will be productive of certain beneficial effects, Hercules having been the first to discover the fact." (Plin. Nat. XXVIII.17).

Thus, here is the proof that this knot was related to healing, at least in the popular imagination, as well as to the protection of maternity (Martín, 2016: 124); it is clearly an amulet that had several functions in society.

As we can see, this element must have been very popular among members of the population, even among the different economic classes, since it is a knot that can be easily made in any type of clothing. The classes with greater economic capacity could wear jewellery with this symbol as an amulet, since there is no real "functionality" in them; and the classes with less economic capacity could use the knot with the double function of being

both a secure closure for clothing and as a protective apotropaic symbol.

The knots in *Gadir*

We are going to present here four heraklean knots and their contexts, all found in the island necropolis of *Gadir* (*Kotinoussa* in this case), under the current city of Cádiz. All the pieces were found during the XXth and early XXIst centuries, in excavations with varied scientific rigour and from which it has been possible to obtain very heterogeneous information. All these jewels, from inhumations, are deposited in the Provincial Archaeological Museum of Cádiz, where they have been studied together with the rest of the grave goods that accompanied the deceased buried in ancient *Gadir*.

A piece with the oldest discovery date was presented in a paper at the II Andalusian Congress of Classical Studies in 1984 and later published in 1985 (López & Pérez, 1985), although it had also been noted in the original work reporting the excavations in which it was found (Cervera, 1923). The central theme of the work that focuses on the analysis of this first piece is knots in general, but viewed from a very broad perspective; it focuses above all on the exposition of different examples of heraklean knots (or Herculean knots according to the paper), both in classical literature and in iconography. It gives a very generic review and does not go into detail regarding the jewel and its context, so it does not contribute to our understanding of the history of the necropolis.

34 years later, the most recently discovered jewel was presented, together with its archaeological context, at the IX International Congress of Phoenician and Punic Studies in 2018, and subsequently published in its proceedings (Belizón et al., 2020). This work includes a complete analysis of the tombs found in the excavations, including the tomb where the heraklean knot was found and which we will analyze below. A historical analysis of the city in its Punic period is also included, even presenting absolute dates, something not common in similar publications.

For the remaining two pieces we do not have scientific publications, so we must turn to the 'grey' literature (administrative documents and other files that can provide us with some information) to complete the data concerned with the discovery and its original context. The archaeological reports of these excavations have served to fill in answers to these questions, although in some respects they are very brief or scarce, such as, for example, the position of the grave goods at the time of their excavation, information that is necessary to be able to make an adequate funerary archaeology. But even with these problems, an attempt is made to shed light on an issue that has not been treated with sufficient rigour in recent years.

These are the four elements that we are going to analyse below, but we must point out that the "decorative" or protective motif of these pieces is unique in the necropolis and in other excavated locations of the ancient city. There is not, at least that has been discovered so far, any representation of a heraklean knot that is related to other aspects of people's lives in *Gadir*, so we can assume that it is an element mainly associated with personal protection, both in life, since these jewels would be worn by people either in everyday life or on special occasions, as well as in death, since the pieces have accompanied the deceased in the afterlife, being buried with them and therefore, forming part of the apotropaic imagery of death.

The original archaeological context

In general, we encounter several problems in the necropolis including the dates of some of the excavations, the consequent outdated methodology and the lack of information even in more recent examples. We also see in the city how the systematic historical looting of the tombs has removed many of the grave goods that the Phoenician-Punic tombs originally possessed. This looting has been taking place since the late Punic or Roman Republican period, when the funerary space itself continued to retain its function, i.e. continued use of the necropolis by Roman society saw the contemporary looting of earlier tombs which must have been easily identifiable, perhaps being marked in some way.

We are going to order the items by date of discovery and we will give the general and specific characteristics of the pieces themselves and of the tombs in which they appeared, together with other grave goods found in the graves, as well as the general context of the excavations and the elements found related to the funerary area that we are dealing with here.

Playa de los Números, 1923.

The first heraklean knot (Knot A) was found in 1923 in the so-called Playa de los Números (Cervera, 1923). We are interested in the set of seven cist burials built with large ashlars, each niche being approximately 1.90 metres long and between 50 and 60 cm wide. Given the age of this intervention and the clearing of land that the area was undergoing, the excavation was carried out practically "vertically". There is not much information about the buried individuals from an anthropological point of view, but we must note the merit of the exhaustiveness in the description of the grave goods and the constructions given the date of the excavation, as opposed to what had been done or would be done many years later in the city of Cádiz itself.

This set is exceptional as it seems that it has not been looted and a large amount of jewellery is preserved. In the case we are dealing with, tomb D is the one that interests us. In addition to the heraklean knot, this tomb contained one or more necklaces; we cannot specify the placement since we have no evidence of the original position of these pieces. The element that represents the knot would have been included in one of the necklaces,

which was composed of some of the twenty-four globular gold beads, thirty-two cylindrical carnelian beads, ten beads of vitreous paste, a gold bead in the shape of an acorn or amphora, another in the shape of a ram's head, a gold medallion in the shape of a twelve-petal rosette and three Ureus-type faience amulets. In addition to these possible necklaces, the set was completed with two rings with a rotating chaton with a carnelian gem, five complex gold earrings with a bronze core and four simple earrings of the same composition. It also had a series of pieces whose function is not well known, consisting of a 3.4 cm diameter gold ring made of two twisted wires, with four semicircle-shaped ribbons inserted (Figure 2.2).

The knot that completes this set of grave goods weighs 1.44 g and measures 2.05 cm long and 0.8 cm wide, with the cord being 0.1 cm thick. It has no hooking system, so we suppose that it was held at the ends, perhaps as the centrepiece of one of the necklaces, together with the gold and carnelian beads (as can be seen in the pieces discovered later). This is a simple knot, made with two gold loops formed by a cord to which another cord has been fused, so the resulting section is bigeminate (Figure 2.1). Due to parallels with another piece and direct observation of the piece, it is possible that it had something fused in the centre, such as a chaton, but lost at the time of its discovery, we do not know if it was due to its use or due to the methodology of the excavation itself. Likewise, because it does not have any fracture point that reveals what the interior is like, we cannot be sure that it is completely made of gold or had been built with some kind of bronze or paste core, as stated in the publication about this piece (López & Pérez, 1985, p. 83).

According to the same publication, this tomb belonged to a woman from the Gadirite high society, although without accurate anthropological analysis we do not believe it is appropriate to attribute a sex to the interred person; however, the abundant grave goods do tell us of a person with wealth during her lifetime, buried with abundant and rich personal adornments.

Plaza Asdrúbal, 1997.

The second heraklean knot (Knot B) found in the necropolis of Gadir, was discovered in 1997, in the excavation carried out in the Plaza Asdrúbal with Paseo Marítimo, a place with a long tradition of significant findings. We focus on burial 70 (Blanco, 1998, p. 54), an inhumation of an adult individual in a supine position and deposited in a simple grave dug in the clay; the pit, oriented NW-SE, was covered by three regularly cut biocalcarenite ashlars. Few bone elements remained due to the composition of the soil, which makes the bones disappear in the burials.

According to the aforementioned report, the chest area contained a necklace with the knot as the central piece, and was also composed of four globular gold beads and two double fusiform beads, nine carnelian beads (eight of them cylindrical and one spherical) and ten very small blue glass beads (Figure 3.2); completing the personal adornment, the individual wore two simple earrings with gold leaf and, on his left hand, a bronze ring with ribbon and flat chaton plated in gold; unfortunately, the blue beads, earrings and ring could not be located in the museum collections.

The heraklean knot weighs 8.44 g (including the central gem) and measures 4.2 cm long and 1.7 cm wide in the central part. It has two sides representing the "aesthetic"



Figure 2. 1: Knot in detail. 2: Composition of the rest of the personal ornaments that accompanied the deceased.



Figure 3. 1: Knot in detail. 2: Composition of the rest of the personal ornaments that accompanied the deceased (drawing of the earrings from Blanco, 1998: Plate 3).

outward view, and it has three settings for amber gems, of which the central and largest piece measuring 1.3 cm in diameter is preserved. In addition it is surrounded by thirty-five small petals, forming a large rosette around the gem. The other two smaller settings placed on the sides are surrounded by the ribbons corresponding to the knot that is seen on the other side. This other side was attached to the chest both for comfort, since it is the flatter part, and, due to the attributions ascribed to the knot, it would be the part that protects the wearer. The knot itself is formed by two ribbons composed of three cords, the central one of which is of filigree while the two outer ones are plain, and in the areas where the settings are there is a gold leaf (Figure 3.1). In addition, it has four fused small cylinders through which the suspension cord was passed, emphasizing the double hook, above and below, which probably served to prevent the piece from rotating on the collar itself.

Palacio de la Justicia, 2005.

Several years later, in 2005, an excavation was carried out in the so-called Palacio de la Justicia of Cádiz (Sibón, 2005), where another piece of this type (Knot C) was found. Among the many late Punic and Roman burials are several older ones, including Inhumation 97. It is the burial of an adult in a simple grave excavated in the clay, with a NW-SE orientation, and with the bones in a very poor state of preservation, as in the previous cases. The deceased's personal adornment consisted of a very poorly preserved, simple gold-plated bronze earring, and a necklace that had the heraklean knot as its centrepiece as well as four spherical gold beads, two double fusiform

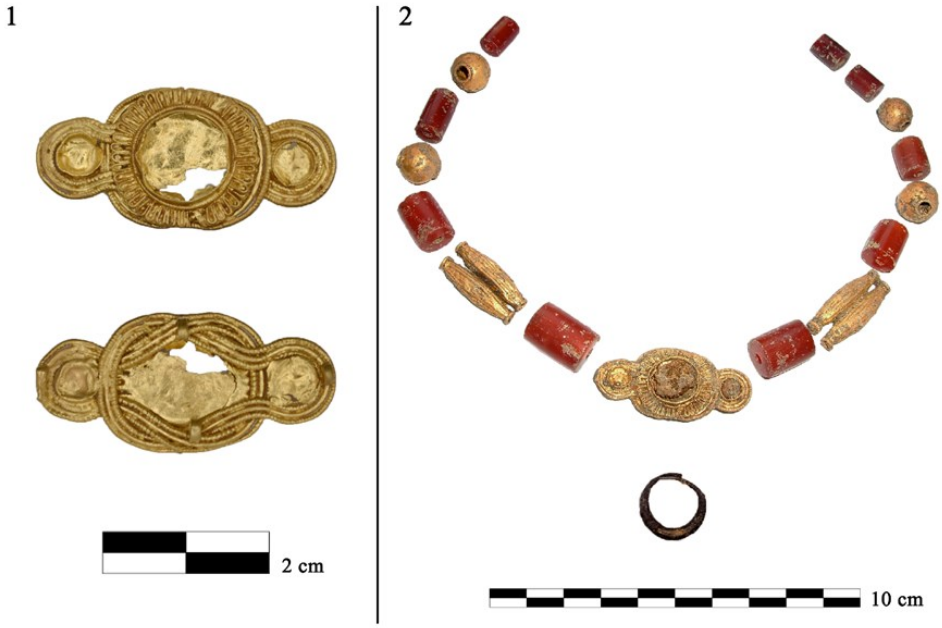

Figure 4. 1: Knot in detail. 2: Composition of the rest of the personal ornaments that accompanied the deceased (Photograph of the necklace from the original excavation archives).

gold beads and nine cylindrical carnelian beads (Figure 4.2).

The knot in this burial weighs 5.15 g and measures 3.65 cm long and 1.65 cm wide. It is surprisingly similar to the Plaza Asdrúbal specimen, but is in a worse state of preservation, and has some technical differences. Around the largest setting, 1.3 cm in diameter, it has forty-one petals, more roughly made than the piece from Plaza Asdrúbal, although the poor preservation makes this number difficult to specify as some have been destroyed (Figure 4.1). Another difference lies in the composition of the ribbon that forms the loops; it is made up of three cords. The two outer cords are filigree while the central one is plain, poorly fused and even separated in some sections. Thanks the technical reports, we know that it originally housed two of three amber gems that were placed in the settings, but which are currently lost. The cylinders used to hang the jewel are also arranged in the same way as in the specimen from Plaza Asdrúbal, but they are of poorer technical quality and are thinner, as is the foil that covers the settings, accounting for the fragmentation of the material.

It is also remarkable how similar the compositions of the two necklaces are in terms of the number of the carnelian and gold beads. This raises questions as to how these personal ornaments were sold, whether they were constructed in this way by the artisans themselves or the perhaps were composed by the wearers themselves.

Conclusion

In conclusion, the knots are strung on necklaces that are composed of faience, glass, carnelian and gold beads, both fusiform and spherical. This pattern of necklace construction is present in most of the personal ornaments found in necropolis tombs from the Punic period. In three of the tombs studied here are necklaces whose composition includes double fusiform gold beads, which are not as common as the simple ones. Everything else matches the style of the typical personal adornments found in the necropolis, such as the presence of carnelian beads, which, although they may be of different types, are distributed throughout the burial space. In addition to gold and carnelian beads, glass beads (both monochrome and glass eye beads) are used as well as different types of Egyptian amulet, almost always made of low-quality faience.

The two types of Heraklean knots correlate with two different forms of burial and probably had different chronologies. The oldest burials were those at Playa de los Números and Avenida de la Constitución. These are burials carried out in cists built with large ashlars, yielding rich collections of grave goods such as the complex earrings (called arracadas), which are absent from later burials. The two burials at Plaza Asdrúbal and the Palacio de la Justicia are later in date; the burials are in pits dug in the earth of the necropolis itself and the grave goods are less rich, lacking the complex earrings or rings of rotating chaton. It should be noted that the earrings from these tombs have the same distinctive typology, which is uncommon in the necropolis.

The oldest knots, belonging to the cist burials (pieces A and D) date to approximately the Vth century BC, while those found in the grave burials (pieces B and C) belong to the end of the IVth century BC, given that these record when the item was deposited in the tomb - the date of manufacture could be much older since these pieces could be family heirlooms or parts of an economic hoard.



Figure 5. 1: Knot in detail. 2: Composition of the rest of the personal ornaments that accompanied the deceased.

The distinctive type of goldsmithing displayed by the specimens belongs to what has been called "*Gadir*'s workshop". The distinguishing features of the workmanship include the style of the decorative motifs, typologies and techniques used. These encompass the gold lamination or filigree work (Bandera, 1981-1982), which is also represented in the "Conjunto Cádiz 2" goldsmithing (Bandera et al., 2010: 53-56) characteristic of the Punic period and denoting local production of jewellery associated with gold imports. As the previous paper demonstrates, thanks to archaeometric techniques, it is possible to access more information about the manufacture or origin of the raw materials. The advent of more innovative techniques such as Computed Tomography, which by means of X-rays allows us to see the interior of the pieces without any damage to them, holds much promise for visualising and better understanding how the artisanal manufacturing process was carried out.

As for the iconography of the knot, the symbol it represents has been found in some elements in the Iberian Peninsula, but it is not particularly widespread. We see examples, above all, in personal ornaments, such as some Hispanic annular fibulae, found in the centre-east of the peninsula (Graells et al., 2016). It is also present in other items of jewellery such as bracelets (Bandera, 1985) and rings, such as the Villaricos gold ring, which comes from an inhumation (Astruc, 1951, p. 33, plate XV fig. 7).

In addition, there is a knot (Perea, 1985, p. 40-41) similar to the two oldest described here (knots A and D), whose discovery seems to have been in Cádiz between the end of the XIXth century and the beginning of the XXth century. The specimen was eventually deposited in the National Archaeological Museum (M.A.N.). Although its origins are uncertain, it is true that the style of manufacture is very similar to that of these older types, suggesting it was produced within this artisanal goldsmithing circle.

There seems to have been no familial relationship between the people who wore the jewels detailed here, given the geographical distance between the burials (figure 6), and assuming that the burial complexes contained family units.

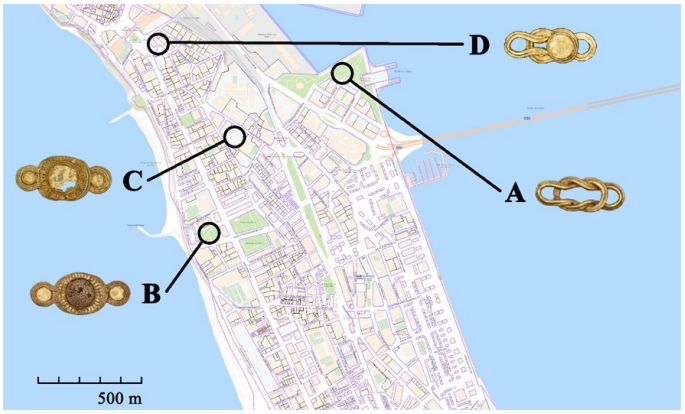

Figure 6. Map of Cádiz with the location of where the tombs containing the knots were found (cartographic base from https://www1.sedecatastro.gob.es/cartografia/mapa.aspx).

The relationship between these pieces and the city of *Gadir* can be found in the figure of Herakles/Melqart himself. Both the mythology of the hero and the stories of historians of Antiquity or archaeological remains tell us of a close relationship between this mythical figure and the population of *Gadir*. We can see this in city coinage dating to the IIIrd century BC, whose main symbol is Herakles/Melqart, with all the classical attributes, including the *leonté* tied with the eponymous knot. A silver hemidrachm, dating to between 237 and 218 BC, is one of the best examples of this iconography (Figure 7).



Figure 7. Gadir's Hemidrachm (from https://monedaiberica.org/v3/type/635).

The double face of some of the knots speaks of a double function - aesthetic, on the one hand (the side bearing the the amber "gems") and protective on the other, hidden side facing the wearer. The protection provided by the jewel is represented by the symbol of the knot itself, which has various parallels in literature and in the iconography of several religions. In addition, gold itself is attributed with magical properties due to its physical qualities, such as its golden colour similar to the sun and light, or its incorruptibility, which is associated with eternity and life in the hereafter. Talismanic amber, which is incorporated into two of the items of jewellery has been ascribed healing and eschatological properties, as well as being related to divinity itself (Causey, 2012, p. 20 -28). The location of the knots in the necklaces indicates that they rest in a position between the neck and the chest, usually a strategic place for apotropaic amulets. Accompanied by earrings and other jewellery, it denotes an exhibition of wealth that could be related to a high socio-economic status in *Gadir* society.

The Heraclean knot is one of the most notable examples of amuletic symbolism from the necropolis of *Gadir*, clearly influenced by Hellenistic tendencies that influenced the city. Many further examples of apotropaic practices remain to be studied; revisionary work on the necropolis should bring these to light.

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References

Acedo del Olmo, F., Martin y Guzmán, J., Tomati, F.A., & de Luarca, F.P. (1770). *Descripción de la nueva iglesia cathedral de Cádiz, y estado de su fábrica hasta el día presente*. Imprenta de D. Francisco Rioja.

Andrews, C. (1994). *Amulets of ancient Egypt*. British Museum Press.

Arévalo González, A., & Moreno Pulido, E. (2017). La participación de la moneda en la ceremonia de enterramiento tardopúnica de Gadir. *Trabajos de Prehistoria*, 74(1), 127-148.

Ashley, C. W. (1944). *The Ashley book of knots*. Faber and Faber.

Astruc, M. (1951). *La necrópolis de Villaricos*. Informes y memorias (Comisaría General de Excavaciones Arqueológicas), 25.

Bandera Romero, M.ª L. de la (1981-1982). Orfebrería gaditana: técnicas y tipología. *Boletín del Museo de Cádiz*, III, 33-41.

Bandera Romero, M.ª L. de la, Ortega Feliu, I., Gómez Tubío; B., Ontalba Salamanca, M. A., & Respaldiza, M. A. (2010). Caracterización del taller de orfebrería de Gadir mediante técnicas de análisis nucleares. *Mainake*, XXXII(I), 37-59.

Belén Deamos, M.ª (2011). Religiosidad funeraria en la necrópolis prerromana de Cádiz. En M.ª C. Marín Ceballos (Coord.), *Cultos y ritos de la Gadir fenicia* (pp. 321-348). Servicio de Publicaciones de la Universidad de Cádiz, Secretariado de Publicaciones de la Universidad de Sevilla.

Belizón Aragón, R., Sáez Romero, A. M., & Bandera, M.ª L. de la (2020). Un nuevo conjunto de enterramientos de la necrópolis púnica de Gadir. Excavaciones en el solar de Avenida de Andalucía 1-3 en Cádiz. En S. Celestino Pérez & E. Rodríguez González (Eds.), *Un viaje entre el Oriente y el Occidente del Mediterráneo. Actas del IX Congreso Internacional de Estudios Fenicios y Púnicos. Volumen III* (Mérida, 2018) (pp. 1013-1034). Mytra.

Blanco Freijeiro, A., & Corzo Sánchez, R. (1981). Der neue anthropoide Sarkophag von Cádiz. *Madrider Mitteilungen*, 22, 236-243.

Blanco Jiménez, F. J. (1998). *Memoria de las excavaciones efectuadas en el solar ubicado en la Plaza de Asdrúbal esquina con el Paseo Marítimo durante 1997/98*. Unpublished memoir deposited in the Provincial Archives of Cádiz.

Causey, F. (2012). *Amber and the Ancient World*. Getty Publications.

Cervera y Jiménez-Alfaro, F. (1923). *Excavaciones en Extramuros de Cádiz. Memoria acerca de los trabajos y resultados obtenidos en dichas excavaciones*. Junta Superior de Excavaciones y Antigüedades, Núm. Gral. 57. Tip. de la Revista de Archivos, Bibliotecas y Museos.

Corzo Sánchez, R. (1992). Topografía y ritual en la necrópolis de Cádiz. *Spal*, 1, 263-292.

Gardiner, A. (1927). *Egyptian grammar. Being an introduction to the study of hieroglyphs*. Griffith Institute Ashmolean Museum.

Graells i Fabregat, R., Lorrio, A. J., Pérez Blasco, M. F., Sánchez de Prado, M.ª D., & Camacho Rodríguez, P. (2016). A propósito de una fíbula anular hispánica con nudo hercúleo y otros hallazgos de La Monravana (Llíria, Valencia). *Archivo de Prehistoria Levantina*, XXXI, 213-139.

López de la Orden, M.ª D., & Pérez López, I. (1985). A propósito de un nudo hercúleo encontrado en Cádiz. *Anales de la Universidad de Cádiz*, 2, 83-97.

Mahmoud, R. A. A. (2019). The knot in examples of religious texts. *SHEDET*, 6, 58-73.

Martín Ruiz, J. A. (2016). Enfermedad y medicina en la sociedad fenicio-púnica. *Aspectos de la vida y de la muerte en las sociedades fenicio-púnicas: XXIX Jornadas de Arqueología Fenicio-Púnica (Eivissa, 2014)* (pp. 107-151). Treballs del Museu Arqueologic d'Eivissa e Formentera 74.

MIB 9/28, en P.P. Ripollès, M. Gozalbes (ed.), *Moneda Ibérica (MIB)*, Valencia, https://monedaiberica.org/v3/type/635 [visitada 19/6/2025]

Muñoz Vicente, A. (2000). Notas sobre la necrópolis fenicia de Cádiz. En M. Lázaro, J. L. Gómez & B. Rodríguez (Coords.), *Homenaje al profesor Carlos Posac Mon (Vol. 1)* (pp. 131-149). Instituto de Estudios Ceutíes.

Muñoz Vicente, A. (2008). Topografía y ritual de la necrópolis fenicio-púnica de Cádiz. En F. J. Guzmán Armario & V. Castañeda Fernández (Coord.), *Vida y muerte en la Historia de Cádiz* (pp. 57-84). Cemabasa.

Nicgorski, A. M. (1995). *The iconography of the Herakles knot and the Herakles-knot hairstyle of Apollo and Aphrodite*. Unpublished dissertation.

Nicgorski, A. M. (2013). Apollo *Akersekomas* and the magic knot of Heracles. In F. De Angelis (Ed.), *Regionalism and Globalism in Antiquity: Exploring Their Limits*, Colloquia Antiqua, 7 (pp. 177-200). Peeters Publishers.

Niveau de Villedary y Mariñas, A. M.ª (2001). Pozos púnicos en la necrópolis de Cádiz: evidencias de

prácticas rituales funerarias. *Rivista di Studi Fenici,* XXIX(2), 183-230.

Niveau de Villedary y Mariñas, A. M.ª (2009). *Ofrendas, banquetes y libaciones. El ritual funerario en la necrópolis púnica de Cádiz*. Spal Monografías XII. Secretaría de Publicaciones de la Universidad de Sevilla, Servicio de Publicaciones de la Universidad de Cádiz.

Perdigones Moreno, L. (1991). La necrópolis fenicio-púnica de Cádiz. (siglos VI al IV a.C.). *Treballs del Museu Arqueologic d'Eivissa e Formentera*, 24, 221-232.

Perdigones Moreno, L., Muñoz Vicente, A., & Pisano, G. (1990). *La Necrópolis feniciopúnica de Cádiz: Siglos VI-IV a. de C.* Universitá degli Studi di Roma.

Perea Caveda, A. (1985). Piezas singulares de orfebrería gaditana en el M.A.N. *Boletín del Museo Arqueológico Nacional (Madrid)*, III(1), 37-42.

Perea Caveda, A. (1992). El taller de orfebrería de Cádiz y sus relaciones con otros centros coloniales e indígenas" *Treballs del Museu Arqueologic d'Eivissa e Formentera*, 27, 75-87.

Naturalis historia. Pliny the Elder. John Bostock, M.D., F.R.S. H.T. Riley, Esq., B.A. London. Taylor and Francis, Red Lion Court, Fleet Street. 1855.

Sibón Olano, J. F. (2005). *Memoria final de las excavaciones arqueológicas del Palacio de la Justicia. Cádiz 2004-05. Tomo II: Sector Noreste.* Unpublished memoir deposited in the Provincial Archives of Cádiz.

Suárez de Salazar, J. B. (Corzo Sánchez, J. R.) (1985 [1610]). *Antigüedades y grandezas de la isla y ciudad de Cádiz*. Caja de ahorros de Cádiz.

Wendrich, W. (2006). Entangled, connected or protected? The power pf knots and knotting in Ancient Egypt. In K. Szpakowska (Ed.), *Through a glass darkly. Magic, Dreams and Prophecy in Ancient Egypt* (pp. 243-269). Classical Press of Wales.

AMULET CASES FROM *VIMINACIUM*

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Summary
Tubular metal capsules with suspension loops, found as pendants in the graves of women and children at *Viminacium*, served as containers for protective amulets. Larger examples, made of silver and bronze, contained rolled-up gold or silver lamellae inscribed with magical texts or symbols. This practice has roots in the Eastern Mediterranean, where gold and silver examples date to the VIIth and VIth centuries BC, while bronze and lead versions appeared later in the West. Some scholars associate these amulets with the Greek words *syrinx/kalamos* (reed), reflecting their cylindrical form.
While lamellae with Greek magical inscriptions emerged around the late Ist century BCE and early Ist century CE in regions such as Pontus, Macedonia, Syria, and Lebanon, empty capsules likely served a similar purpose. The messages they once held may have been inscribed on perishable materials that have not survived. Three smaller silver specimens from *Viminacium*, incorporated into necklaces alongside other pendants, suggest a different use. Their diminutive size precludes the inclusion of metal *lamellae*, implying they may have contained organic or mineral substances believed to offer protection. Similar cases from Roman Britain, such as the Thetford Treasure, confirm the presence of sulphur, a material thought to possess apotropaic properties, and one of the examples from *Viminacium* possibly contained herbal remains.
The tradition of wearing tubular capsules as amulets extends back to the Egyptians and Phoenicians and was later adopted by the Greeks and Romans. Egyptian examples from the Middle and New Kingdoms contained garnet beads and seeds, while Phoenician specimens enclosed fragrant wood, iron fragments, mica, and crushed insect wings. If the *Viminacium* amulets contained similar substances, they would be closely related to bullae, another type of protective container. Unlike the bulla, which maintained a standardized form and persisted beyond Classical Antiquity, tubular amulet cases are rarer and chronologically restricted.
Most examples from *Viminacium* date to the IIIrd and IVth centuries CE, while the earliest specimens appear during the late IInd and IIIrd centuries CE, a period of significant economic prosperity when the city functioned as a thriving urban centre in the central Balkans. Its strategic location on the Danube frontier attracted a diverse population from across the Roman Empire, facilitating the exchange of customs, beliefs, and rituals. The presence of these amulets across different social strata suggests their widespread use, regardless of economic status or regional origin.

Keywords: amulet cases, *Viminacium*, *lamellae*, protective magic

Introduction

Ancient *Viminacium* was strategically situated on the frontier of the Roman Empire, along the Danube River in present-day Serbia, at the northern edge of the Balkans. Approximately 100 kilometres downstream from modern Belgrade, it stood near the confluence of the Velika Morava, another vital waterway (Figure 1). This advantageous geographical position played a crucial role in the city's development, facilitating trade, military operations, and cultural exchange. As a key hub, *Viminacium* maintained strong connections with both the western and eastern provinces of the Empire, as well as with Greece to the south. These extensive networks contributed to its prosperity and endowed the city with a distinctly cosmopolitan character, shaped by the diverse influences of people, goods, and ideas that passed through its gates.



Figure 1 – Map of Europe showing the location of Viminacium (Base image source: Google Earth, Imagery © 2024. Modified by Authors)

Viminacium was established in the second half of the Ist century CE as a strategic legionary camp for *legio VII Claudia*, which remained garrisoned there until the end of Classical Antiquity. Over time, a civilian settlement developed alongside the military base, gradually expanding into a thriving city. Over the centuries, *Viminacium* became the largest city in the province of Moesia Superior, serving as its administrative, economic, and cultural centre. Its dual role as a military stronghold and a provincial capital made it one of the most significant cities on the Roman Danubian frontier (Mirković, 1986, pp. 21–59; Mirković, 2007, pp. 40–56, p. 112; Спасић-Ђурић, 2015, pp. 22–26; Korać, 2019, pp. 22–31.).

Excavations at *Viminacium* have primarily been salvage-oriented, focusing on areas surrounding the legionary fort and the ancient city, which are threatened by extensive coal mining activities and the construction of a thermal power plant. As the necropoleis were located in these peripheral zones (Figure 2), archaeological efforts have uncovered approximately 14,000 graves, providing an exceptional dataset for research. To date, more than 35,000 artefacts made from various materials and serving diverse functions have been discovered, offering valuable insights into the daily life, burial practices, and cultural dynamics of this important Roman urban and military centre.

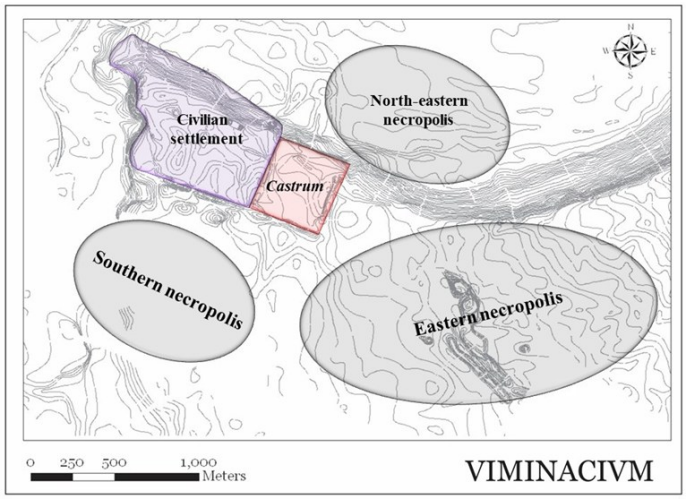

Figure 2 – General plan of the *Viminacium* site (by authors)

This paper focuses on tubular shaped amulets, or to be more precise – amulet containers, made from metal (silver and bronze) and glass. At southern, eastern and north-eastern necropoleis of *Viminacium*, such artefacts have been found in ten graves. In one case there were three specimens in one burial, while the remaining nine graves yielded singular examples. Only one *tubulus* was found outside of a burial, but also in the territory of the necropolis, possibly originating from a destroyed tomb.

The practice of wearing tubular capsules with specific contents vertically has its origins in the worlds of Egyptians and Phoenicians, later adopted by Greeks and Romans, and which were worn horizontally, hanging from one, two or three suspension loops (Ogden, 1990, p. 212). The name for these amulets is associated with the Greek words for reed (*syrinx, kalamos*), matching the shape of cylindrical metal cases, in all probability showing that the earliest examples were made of organic materials. Finds from the Middle and New Kingdoms in Egypt include garnet beads and seeds, while Phoenician capsules contain fragrant wood branches, pieces of iron, mica, and crushed insect wings. Gold and silver specimens from the Eastern Mediterranean date back to the VIIth and VIth centuries BCE, while bronze and lead versions appeared later in the West (Faraone, 2018, p. 82–83). Some capsules from the Roman period contained herbal seeds or other organic (resin, beeswax) and mineral (sulphur, haematite) substances believed to have protective powers for both the living and the dead (Danković & Milovanović, 2022, pp. 71–72). Sulphur, for instance, was found in a cylindrical capsule from the Thetford Treasure (Faraone, 2018, pp. 82–83, Figure 3.1.).

Larger capsules made of gold, silver, and bronze are more common and often contain rolled-up miniature silver or gold plates inscribed with magical texts or symbols, known as lamellae (Dickie, 2003, p. 193). Greek magical texts on lamellae first appeared in the Ist century BCE, with their numbers gradually increasing throughout the Ist century CE before surging in the IInd century (Kotansky, 1994, p. XVIII). These inscribed lamellae have been discovered across various regions of the Roman Empire, with examples dating as late as the VIth century CE (Foskolou, 2014, p. 333).

Amulet cases containing lamellae

Of the thirteen amulet cases discovered at *Viminacium*, three contained lamellae inscribed with magical texts. A detailed examination of these sepulchral contexts, along with the amulets themselves, will be provided in the following section.

Grave No 51 (north-eastern necropolis, site Rit)

The body of a child, approximately four years old and lying on its back, was covered by the lower half of an amphora along with fragments of roof tiles. Near the skull, three iron nails were discovered, possibly indicating that the child had been buried in a wooden coffin. The skull was fragmented, with only portions of the arm and thigh bones preserved. Beneath the jaw, a silver capsule (*tubulus*) was found, featuring one intact and two broken loops for attachment (Danković & Milovanović, 2022, p. 89, Cat. 22). One end of the capsule was damaged, and inside it, a rolled-up rectangular gold foil inscribed with Greek letters was discovered (Figure 3).



Figure 3 – Silver amulet case with a gold *lamella* rolled inside (grave No. 51)

The inscription, arranged in ten columns, contains divine names accompanied by epithets, including *Thôbarrabau*, *Semeseilam*, and *Sesengepharange*. This type of magical amulet represents a "pantheistic" invocation of divine names, written in the vocative case, intended to provide general protection for its owner both in life and after death. These names belong to the category of *voces magicae*—magical words that may refer to gods or other supernatural beings, such as demons (Korać & Ricl, 2017, p. 164).

The expectation of protection after death is reinforced by a schematic drawing beneath the text, which some scholars interpret as a depiction of a funeral bed with the deceased on a boat. The amulet was not personalized but intended for any owner, regardless of gender or age.

Similar *lamellae* inscribed with the names of the same deities—though in a different order—have been discovered at two other sites: *Hermoupolis Magna*, a town in Upper Egypt on the Nile, and the Roman camp of *Gelduba* (modern Krefeld, between Düsseldorf and Duisburg). This suggests that these amulets, including the one from *Viminacium*, were copied from a shared, now-lost magical manual (Korać & Ricl, 2017, pp. 164–170, Figs. 3–4). The deities identified in the phonetic inscription on the *Viminacium* gold *lamella* belong to the Aramaic-Hebrew, Babylonian, and Egyptian pantheons. They appear to be primarily solar deities associated with the sun, light, and eternity. However, the inscription also mentions the Egyptian entity *Panchouchi*, described as a "spirit of darkness", whose role was to safeguard the wandering souls of the deceased in the underworld.

This suggests that the deceased or their loved ones invoked solar deities to ensure protection in the afterlife while also calling upon the "spirit of darkness" to prevent the soul from becoming lost in the underworld, guiding it toward peace.

Grave No 5754 (southern necropolis, site Pećine)

The second amulet container was found in a plain burial (Figure 4; Danković & Milovanović, 2022, pp. 88–89, Cat. 21). It was positioned near the feet of a female individual, aged between 25 and 35, who was laid on her back with hands resting on the abdomen. The skeletal remains were poorly preserved.

In addition to the *tubulus*, a bronze earring was found near the head, while three bronze coins—Constantine II (330–336), Constantine I (330–336), and Constantine II Caesar (circa 320)—were recovered near the abdomen. A glass vessel was placed near the feet.

The amulet case, pentagonal in shape and crafted from thin bronze sheet metal, contained two scrolls with magical inscriptions—one made of gold and the other of silver.

The gold *lamella* from the amulet case features a sequence of magical symbols, totalling 26. Among them, seven resemble the letter "B," three take the form of the Greek letter Delta, and three have a rectangular shape intersected by two lines (Korać & Ricl, 2017, pp. 170–172; Figs. 6–7; Danković & Milovanović, 2022, pp. 91–92, Cat. 26).



Figure 4 – Bronze amulet case with gold and silver lamellae (grave No. 5754)

The silver lamella also features a series of magical signs, inscribed horizontally on seven imagined "lines," with a total of 45 symbols. Among them, one can recognize "astral signs", including four-pointed, six-pointed, and eight-pointed "stars" with circles at their ends, as well as Greek letters B, E, Δ, and K.

In the lower part of the foil, there is a shape resembling a tabula ansata containing letters that resemble M, F, K, and I. Similar symbols appear on magical papyri and engraved gems (Korać & Ricl, 2017, pp. 172–174; Figs. 8–9; Danković & Milovanović, 2022, p. 91, Cat. 25). The reverse sides of both foils are blank, and they were rolled in a manner that keeps the inscriptions hidden on the inside, concealed from public view.

The magical symbols on the listed lamellae differ significantly. Those on the silver specimen primarily belong to the category of *charaktêres*, symbols of great power. Their exact meaning remains unclear, and it is uncertain whether the Romans attributed specific significance to each individual symbol. It is possible that their power resided in their enigmatic and mysterious nature. Their primary function appears to be unlocking magic and aiding in the invocation of supernatural beings. The knowledge regarding whether or how the *charaktêres* were pronounced is limited, suggesting that they primarily served as a visual means of communication with the divine (Wilburn, 2012, p. 72).

Some authors suggest that the multiply intersecting lines on one of the lamellae may represent "astral signs", symbolizing the solar system, deities, and the cosmos, possibly depicted as circles. These symbols appear to invoke solar deities in a specific manner, seeking their protection to ensure peace and tranquillity during life and especially after death. It is believed that these inscriptions

were intended to be "readable" only by the gods (Korać & Ricl, 2017, p. 172, footnote 49).

Whatever the case, the example from *Viminacium* notably lacks a textual request directed at supernatural entities, a typical feature of both prophylactic and curse amulets, where *charaktêres* are usually added to ensure the spell's success, as seen in well-known examples from Rome (Gager, 1992, p. 68, Figure 9, p. 72, Figure 10; Edmonds III, 2019, p. 63, Figure 4, Pl. 4). This absence raises questions: was the amulet created by an illiterate or quasi-literate magician, or could it even be a hoax?

Grave No 304 (eastern necropolis, site Pirivoj)

The third individual was most likely buried in a wooden coffin, as suggested by the presence of two iron nails near the feet. The body was positioned on its back, with the arms bent at the elbows and the right hand placed over the left on the abdomen. The gender and age of the deceased remain unknown.

An iron ring was discovered on the chest, while the amulet container was found between the right shoulder and the skull, alongside a bronze *bulla*. The container is cylindrical, made of silver sheet metal, and features two looped bands for attachment (Figure 5 a, b; Danković & Milovanović, 2022, p. 90, Cat. 23). A *lamella* inside the container was detected only recently and is currently undergoing preliminary examination. Initial observations suggest that it is inscribed with a text in Greek.



Figure 5 a, b – Silver amulet case (grave No. 304)

Three additional *lamellae*, not enclosed in cases, were found inside two sepulchral features. All of these scrolls are in a poor state of preservation and are unreadable.

Grave No 2615 (southern necropolis, site Više grobalja)

The grave was constructed with horizontally laid bricks in six rows, bound together with mud mortar. The cover of the grave was made from four horizontally arranged bricks. The inner walls of the coffin were coated with a layer of lime mortar, up to 1 cm thick. Inside the coffin, the female was laid on her back, with her arms bent at the elbows, resting on her pelvis.

Near the left knee, two rolled silver lamellae were discovered, along with glass beads and bronze and silver *bullae* (Figure 6). In the neck area, additional glass beads and parts of a necklace were found, along with two gold earrings featuring purple gemstones next to the skull. A bronze coin, minted for *Julia Domna*, was found near the right elbow, and a silver ring was located on the left hand. Near the feet, three bronze-plated circular ornaments were found, possibly parts of a wooden box, along with fragments of a glass toiletry bottle.

Grave No 2544 (southern necropolis, site Više grobalja)

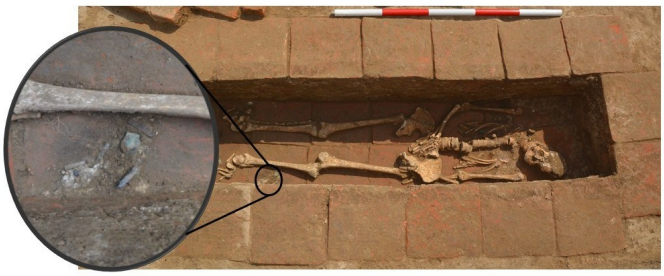

Figure 6 – Grave No. 2615 with a zoomed-in view showing the position of the lamellae

The third *lamella*, without a case, was found in the burial of a child in a lead sarcophagus (Milovanović *et al*., 2023, pp. 89–105, 114, Pl. V). The lead coffin was decorated in relief on both the lid and the long and short sides with twisted, multiply intersecting lines. The child's skeleton was positioned on its back, with arms at the sides, and all the bones were in a very fragile state. Remnants of organic material, likely from leather footwear and a whitish fabric (presumably a shroud covering the deceased), were found along the entire skeleton.

The *lamella* was folded multiple times into a small square measuring 1 x 1 cm and was discovered beneath the child's skull (Figure 7). In addition to the *lamella*, a bronze coin of *Faustina I* (minted after 141 CE), a thin gold wire earring, and a bronze coin with three perforations from the first half of the IInd century (likely used as a pendant) were found near the jaw. A larger gold foil pendant in the shape of a pelt (similar to the shield of Amazons) was discovered on the chest, likely serving as a defence against malevolent entities.

In the right hand, there was a twisted, snake-shaped gold ring, and



Figure 7 – Silver *lamella* (grave No. 2615)

on the left hand, two twisted gold wires connected by a gold link.

Amulet cases without content

The remaining seven amulet cases found in graves were empty. It is possible that, due to damage, they lost their contents over time. Seven of these tubuli were made of silver, and one was made of glass. Additionally, one more silver specimen was found in the area of the necropolis.

Grave No. 323 (southern necropolis, site Pećine)

The deceased was buried in a wooden coffin, lying on the back with hands positioned on the pelvis. The gender of this individual, estimated to be around 25 years old, could not be determined. The amulet case was found within the skull. It was hexagonal in cross-section, made of silver sheet with two loops for attachment, and closed at one end, while the plate on the other end had fallen off (Figure 8). The grave was located in a layer containing coins from the second half of the IIIrd century.

Grave No. 2694 (southern necropolis, site Više grobalja)

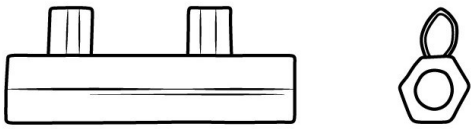

Figure 8 – Drawing of a silver amulet case (grave No. 323)

The second grave contained a deceased individual laid on their back, with hands placed on the abdomen. The gender and age of the deceased are unknown. Fabric remnants were preserved along the spine. Near the skull, fragments of a tubular pendant made of thin silver sheet in cylindrical form (Figure 9), with three looped bands, were discovered, along with a multi-sided silver ring.

In the layer above the grave, a larger bronze *tubulus* was found, which did not function as an amulet. Cylindrical boxes like this sometimes-contained needles. Additionally, a bronze coin minted during the reign of Philip I (244–249 CE; RPC VIII, ID 77417) was found beneath the bones of the right hand.

Grave No. 134 (eastern necropolis, site Pirivoj)



Figure 9 – Fragments of a silver amulet case (grave No. 2694)

The grave was constructed using vertically placed tegulae (roof tiles), with four horizontally arranged tiles serving as the cover. The deceased, a woman estimated to be between 30 and 35 years of age, was buried on her back with her arms bent at the elbows and hands placed on her abdomen.

Around her neck, two necklaces were discovered: one made of gold wire with multi-coloured glass beads and a heart-shaped pendant, and another consisting of 323 beads (glass, stone, and amber) wrapped three times around her neck, featuring various pendants. Among these were three small fragmented tubular pendants (two with a circular and one with a hexagonal cross-section; Figure 10), a silver monetary medallion with an illegible bronze coin, a silver pendant with a purple stone, a medallion with a cameo depicting Medusa, and two radial links.

Also found were a silver ring with a gem, a gold earring, a bronze coin minted in the Bithynian city of Nicaea during the IIIrd century, and a green glass toiletry bottle with blue berries at the bottom (Milovanović, 2018, p. 109, Figure 3). The small diameters of the *tubuli* possibly suggest they contained only organic or mineral ingredients.

Grave No. 57 (eastern necropolis, site Pirivoj)

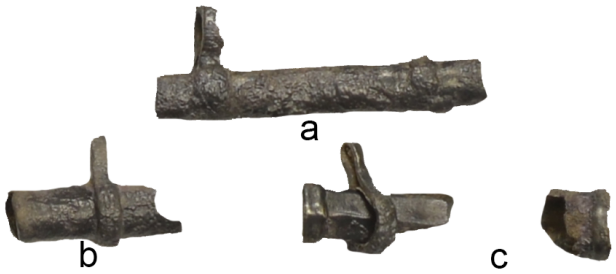

Figure 10 – Three fragmented amulet cases (grave No. 134)

The grave was constructed of raw stone slabs, the interior of which was plastered with lime mortar, while the floor was made of bricks. The grave cover was not preserved; however, four iron nails found in the grave fill suggest a burial within a wooden coffin. The deceased was laid on his back with arms bent at the elbows and hands placed on the stomach.

A miniature capsule, made of a thin silver sheet, was found on the chest. It is hexagonal in cross-section, features two ribbon loops, and has circular caps on both ends (Figure 11). It was discovered together with 95 glass beads (89 blue polyhedral, four green polyhedral, and one green spherical) and two amber beads (Milovanović & Redžić, 2022, pp. 393–394).

Among other grave goods, a ceramic lamp was placed between the feet and a bottle with a spherical body made of transparent blue glass was located next to the left lower leg. A bronze coin, which dates to the IVth century (330–335 CE), was found just above the grave.

Grave No. 212 (eastern necropolis, site Pirivoj)



Figure 11 – Fragmented silver amulet cases (grave No. 57)

The grave was constructed of vertically placed tegulae, with a gabled roof cover comprised of horizontally laid bricks. A portion of the cover was devastated. The skeleton of the deceased was largely disarticulated. The only bones remaining in their anatomical position were those of the right upper arm, the right side of the torso, both femurs, and a section of the left lower leg.

In the western part of the grave, the remains of a capsule were found. It was made from a silver sheet, hexagonal in cross-section, and featured four ribbon loops with circular caps on both ends (Figure 12). It was discovered together with fragments of a bone bracelet, hoop-type earrings made of gold wire (Milovanović & Redžić, 2022, pp. 402–403), and glass beads from a necklace (comprising nine green and blue polyhedral beads and 39 spherical and two-membered blue beads).

Other grave goods were located next to the lower legs: a pear-shaped glass bottle by the left leg, and fragments of a brown glass bottle, a fragmented greenish glass unguentarium, a brown stone palette, and a fragmented bronze ring with a circular, plate head next to the right leg.

In the central part of the grave, three bronze rings were found: two with carved representations of lions and one featuring Christ's monogram (Jovičić & Bogdanović, 2022, p. 178). A silver ring with an elliptical head was also discovered there, set with a brown gem depicting a standing woman with a raised hand (Milovanović, Redžić, 2022, p. 379).

The assemblage also included two closed bronze bracelets decorated with transverse incisions (Milovanović, Redžić, 2022, pp. 369, 383), an iron object with remains of a wooden frame (a knife?), and a IVth century bronze coin (Constans).

Grave No. 3 (north-eastern necropolis, site Rit)



Figure 12 – Fragments of a silver amulet case (grave No. 212)

The grave contained the remains of a girl aged between 7 and 14, buried in a simple pit. In the area of her collarbones, two silver pins and two large amber beads were found, likely used for securing and decorating her attire. In the neck area, there was a necklace made of glass and bone beads. On the right wrist, a glass beads necklace was found, while near the left side of the pelvis, four intaglios and 19 beads of various materials and shapes were laid down (Danković, 2024, p. 55).

During the removal of skeletal material from the grave, a blue glass inlay was found next to the left hand, close to the location of the intaglios and beads. Additionally, fragments of rolled silver sheet were discovered, likely part of an amulet case with circular perforations, as well as a fragment of silver wire for attachment (Figure 13).

Although uneven in thickness, the coarsely rolled silver sheet was modelled to form a container. Unlike the previously described amulet cases, this one did not have hooks for suspension but instead featured a wire loop passing through the perforations. Near the fragments, remains of plant material were also observed.

Based on the context of the find, it is clear that this item was not worn around the neck. Instead, along with the gems and beads, it was likely placed beside the deceased, possibly inside a small pouch or casket.

Grave No. 2631 (southern necropolis, site Više grobalja)



Figure 13 – Silver amulet case (grave No. 3)

This is a group burial in a simple grave pit, likely a mother with her three children, the youngest of whom had a necklace around their neck[1]. Only three glass beads were preserved: two polyhedral beads of brown colour, and the third a spherical black bead decorated with three white circles. The barrel-shaped amulet, made of black glass, found within the skull, was probably part of this necklace (Figure 14).

[1] Based on the physical anthropological analysis conducted by I. Mikić from the Institute of Archaeology in Belgrade, to whom we extend our sincere gratitude, the deceased is a female aged 30. Of the three "children", the eldest is biologically female and in her adolescent years. The genders of the other two remain unknown. Their estimated ages are between 6 and 8 years old, and between 3 and 5 years old, respectively.

The amulet is barrel-shaped, featuring one closed, tapered end and one broken, open end. It can be postulated that the open end was originally sealed with an organic material, such as resin or wax. The interior cavity was likely designed to hold a substance, perhaps a magical material or a rolled sheet inscribed with a spell. A wider, ribbon-like suspension loop, integrally cast from the same piece of silver as the capsule body, is located at its centre.

Two bronze coins minted during the IInd half of the IVth century (Constantius Gallus 351–354 CE) were found near the legs of the deceased.



Figure 14 – Necklace with glass amulet case (grave No. 2631)

Territory of the southern necropolis, site Pećine

As mentioned earlier, the last tubular amulet container, made of silver, was also found empty in the southern necropolis (Figure 15). It likely originated from a devastated grave. The layer in which it was found was dated by finds of coins minted during the IInd and IIIrd centuries CE.



Figure 15 – Drawing of a silver amulet case (layer, southern necropolis)

Discussion

Out of a total of thirteen amulet containers, twelve were found in graves with inhumed individuals (three in one of the graves), while one was discovered in the layer between graves. Although displaced—likely due to looting or later burial activities—this specimen should still be considered part of the grave inventory. In all but one case, only a single amulet container was found per burial; the exception is a grave containing three.

Eleven of the amulet cases are made of thin silver sheet metal, while bronze and glass are each represented by a single example. The metal specimens share similar general characteristics, with variations in cross-section—eight are round, while the remaining four are polygonal (pentagonal or hexagonal). Only a glass capsule has a barrel-shape. The intact examples range in length from 2.1 to 4.1 cm, with diameters ranging from 0,5 to 1,1 cm. The three fragmented cases, found in the same grave (No. 134), are significantly narrower and were originally part of a necklace composed of various beads. This design is consistent across the specimens from graves No. 57, 212, and 2631.

The cylindrical capsules were sealed at both ends with circular plates of thin sheet metal, though these are often missing due to damage and fragility. Most were designed with two or four ring-like loops, decorated with hammered grooves, for suspension. The number of loops depended on the amulet's length and weight. Notably, one specimen (in Grave No. 2694) features an additional loop soldered onto the circular lid, making it the only known example with a suspension loop at the cylinder's end. The position and form of the loop suggest this specimen could have been suspended either horizontally or vertically.

A unique suspension method is preserved on a fragmented silver specimen from grave No. 3. It features a partial circular perforation with a thin wire, which likely was passed through the opening, allowing the pendant to be suspended.

Amulets are most commonly found near or within the skull, as they were typically worn as pendants on necklaces. However, specimens discovered near the hands and feet are believed to have been placed in a pouch alongside other apotropaic objects. In addition to the silver and bronze specimens from *Viminacium*, similar items made of gold have been found in *Aquincum* and *Nikolaevo*. Five tubular specimens from *Aquincum*, each with two or three loops, were discovered in graves dating to the IIIrd century (Facsády, 2009, pp. 67–68; 116, Cat. 234–238). A specimen from Nikolaevo was found on a necklace that was part of a hoard dated to the mid-IIIrd century (Ruseva-Slokoska, 1991, p. 49, 51, 138, Cat. 97). Glass cylindrical amulets of the same type, come from *Bracara Augusta* in Portugal (Barroso, 2024, pp. 15–16), Mérida in Spain (Barrero Martín, 2022, pp. 119–121; 307), Trieste in Italy (Giovannini, 2009, pp. 121–122), Bregenz in Austria (*Brigantium*) (Konrad, 1997, Taf. 32) and from Colchester. The glass specimens from graves belong to the period from the first third of the IVth century to the last third of the same century (Konrad 1997, p. 220; Crummy, 1983, p. 35, Figure 37/1504).

The only known specimen of a cylindrical shape with two loops, made of mother-of-pearl, comes from *Callatis*. It served as a pendant on a pearl necklace discovered in a IVth-century grave (Alexandru *et al.*, 2024, pp. 6–7).

It is believed that metal capsules with a circular cross-section are older than those with angular cross-sections, which extend into the second half of the IVth century (Facsády, 2009, p. 68). This is supported by four specimens from *Viminacium*: one with a pentagonal cross-section (dated by coins to the second half of the IVth century) and three with a hexagonal cross-section (with a coin from the same period). A scholarly consensus dates glass specimens exclusively to the IVth century, as their dating is securely established by associated grave goods, including coins.

More elaborately decorated specimens featuring filigree and granulation, which were part of hoards, date back to the first decades of the IVth century. This type of amulet continued to be used throughout the Vth and VIth centuries. It is entirely possible that a miniature papyrus from this period, containing a Christian prayer, was stored within such a capsule (Ogden, 1990, pp. 212–213).

This type of pendant is sometimes depicted in Fayum mummy portraits (Figure 16; Thompson, 1982, p. 7, Figure 8; pp. 10–41; Spaabæk, 2020, p. 150, Figure 18.2a). However, whether they were worn during the person's life remains unclear, as these portraits were inserted in the wrappings of mummies over the head, serving as idealized representations (Thompson 1982, p. 2). The deceased are shown in their finest clothing and jewellery, intended to preserve their memory in the best possible way. Specific texts on *lamellae*, which are believed to have had a curative function, suggest that they were indeed worn during life. After death, however, these amulets maintained their prophylactic role, protecting the deceased in the afterlife.



Figure 16 – Fayum mummy portrait of a boy wearing a necklace with a tubular amulet case (Digital image courtesy of Getty's Open Content Program)

With their protective role in mind, it must be noted that anthropological analysis of skeletons from *Viminacium* graves revealed that these amulets were almost exclusively worn by children and women, particularly those in poor health. These groups, considered the most vulnerable in society, were more susceptible to illness and mortality, making them prime candidates for wearing protective amulets.

Rolled *lamellae* with magical inscriptions were often stored in tubular containers, although many examples have been found empty. While it is possible that the scrolls were removed during grave looting, deteriorated over time, or were written on perishable materials such as papyrus or plant leaves (Dickie, 2003, p. 193; Wilburn, 2012, p. 66; Faraone, 2018, p. 81), it can also be argued that these specific amulet cases may have contained organic or mineral substances with symbolic or healing properties. Indeed, one of the cases from *Viminacium* was found with dried plant remains. If these specimens did contain such materials, they are most comparable to bulla-shaped containers used for similar purposes (Stojić, 2015, p. 49). Two examples from *Viminacium* were found alongside *bullae*. Unlike *bullae*, which had a standardized shape and continued to be used beyond Classical Antiquity, miniature tubular capsules are rarer and chronologically limited.

Most specimens that are reliably dated by coins or other chronologically sensitive finds belong to the IIIrd century CE (Graves No. 3, 51, 134, 304, 323, 2694), while a smaller number are dated to the IVth century (Graves No. 57, 212, 2631, 5754). They seem to be introduced during the late IInd and IIIrd centuries CE, a time when the city experienced its greatest economic prosperity and functioned as a sort of metropolis on the Roman Frontiers. The city's prominence during this period attracted people from various parts of the Empire, bringing with them diverse customs, beliefs, rituals, and ceremonies, which contributed to the development of a multicultural community. While the practice of using these types of amulets is known to have originated in the eastern provinces, it remains unclear whether they were used exclusively by people from those regions or also by the local population, which seems more likely. More information is expected from the implementation of new scientific methods, such as aDNA. What is evident, however, is that the practice transcended social and economic status, spanning the vertical axis of society.

References

Alexandru, N., Mărgărit, M., & Hamat, A. (2024). A Mother – of – Pearl Amulet Discovered in a Child´s Grave at *Callatis*. In C.J. Duffin, & A. Vieira (Eds.), *International Conference on Amulets, 15th – 16th November 2024. Abstracts,* (pp. 6–7), D. Diogo Đ Sousa, Museu De Arqueologia. https://www.academia.edu/125403035/ICA_2024_Amulets_Abstracts_Booklet_eds_Christopher_Duffin_and_Alexandra_Vieira

Barrero Martín, N. (2022). *ORNAMENTA MULIEBRIA. El adorno personal femenino en Mérida durante la antigüedad*. Monografías Emeritenses.

Barroso, M. (2024). Magic and Apotropaic Devices from Bracara Augusta (The Capital of Roman Callaecia). In C.J. Duffin, & A. Vieira (Eds.), *International Conference on Amulets, 15th – 16th November 2024. Abstracts,* (pp. 15–16), D. Diogo Đ Sousa, Museu De Arqueologia. https://www.academia.edu/125403035/ICA_2024_Amulets_Abstracts_Booklet_eds_Christopher_Duffin_and_Alexandra_Vieira

Crummy, N. (1983). *The Roman small finds from excavations in Colchester 1971–9*. Colchester Archaeological Trust.

Danković, I. (2024). *Od devojčice do matrone*. Arheološki institute/Evoluta.

Danković, I., & Milovanović, B. (2022). I Summon Thee Thôbarrabau! Magical Practice in Viminacium. In M. Vojvoda, I. Danković, & B. Milovanović (Eds.), *Vivere in Urbe, Viminacium,* Vol I, (pp. 56–97). Institute of Archaeology.

Dickie, M. W. (2003). *Magic and Magicians in the Greco-Roman World*. Routledge.

Edmonds III, R. G. (2019). *Drawing Down the Moon*. Princeton University Press.

Facsády, A. R. (2009). *Aquincumi Ékszerek/Jewellery in Aquincum*. Az Aquincumi Múzeum Gyűjteménye.

Faraone, C. A. (2018). *The Transformation of Greek Amulets in Roman Imperial Times*. University of Pennsylvania Press.

Foskolou, V. A. (2014). The magic of the written word: The evidence of inscriptions n Byzantine magical amulets, ***Δελτίοντης Χριστιανικής Αρχαιολογικής Εταιρείας,*** *35*, 329-348.

Gager, J. G. (1992). *Curse Tablets and Binding Spells from the Ancient World*. Oxford University Press.

Giovannini, A. (2009). Alcuni Tipi di Ornamenti per il Collo dalle Collezioni del Civico Museo di Storia ed Arte di Trieste, Quaderni Friulani di Archeologie, XIX, 119–125.

Golubović, S., Milovanović, B., & Redžić, S. (2022). *Viminacium – Lokalitet Pećine. Nekropola oko južne gradske komunikacije*. Arheološki institut.

Jovičić, M., & Bogdanović, I. (2022). Roman Religion, Various Cults and Christianity in *Viminacium*, In M. Vojvoda, I. Danković, & B. Milovanović (Eds.), Vivere in Vrbe, *Viminacivm*, Vol I (pp. 99–200). Institute of Archaeology.

Konrad, M. (1997). Das Römische Gräberfeld von Bregenz – Brigantium I. C. H. Beck□sche Verlagsbuchhandlung, München.

Korać, M. (2019). *Viminacium Urbs et Castra Legionis: Research, Protection, Presentation and Valorisation*. Institute of Archaeology.

Korać, M., & Ricl, M. (2017). New Gold and Silver Amulets from Moesia Superior (Serbia), *Zeitschrift für Papyrologoe und Epigraphik*, 203, 164–176.

Kotansky, R. (1994). *Greek Magical Amulets. The Inscribed Gold, Silver, Copper, and Bronze Lamellae. Part I. Published Texts f Known Provenance*, Springer Fachmedien Wiesbaden GmbH.

Milovanović, B. (2018). Jewelry as a Symbol of Prestige and Power of the Viminacium Population. In S. Golubović, & N. Mrđić (Eds.), *Vivere Militare Est. From Populus to Emperors-Living on the Frontier*, Vol II, (pp. 101–141). Institute of Archaeology.

Milovanović, B., & Redžić, S. (2022). Jewellery and Brooches: Between Functionality, Aesthetic Value, and Status Symbol. In M. Vojvoda, I. Danković, & B. Milovanović (Eds.), Vivere in Vrbe, Viminacivm, Vol I (pp. 285–426). Institute of Archaeology.

Milovanović, B., Golubović, S., & Mikić, I. (2023). Recently Discovered Lead Coffins from *Viminacium (Moesia Superior)*. *Starinar*, LXXIII, 89–120.

Mirković, M. (1986). *Inscriptions de la Mésie Supérieure, vol II, Viminacium et Margum*. Centre d'études épigraphiques et numismatiques de la Faculté de philosophie de l' Université de Beograd.

Mirković, M. (2007). *Moesia Superior: eine Provinz an der mittleren Donau*. Philipp von Zabern.

Ogden, J. M. (1990). *Gold jewellery in Ptolemaic, Roman and Byzantine Egypt*. [Durham theses, Durham University]. http://etheses.dur.ac.uk/1457/

RPC VIII. The Roman Provincial Coinage. https://rpc.ashmus.ox.ac.uk/type/77417

Ruseva-Slokoska, Lj. (1991). *Roman Jewellery, A collection of the Natioanal Archaeological Museum – Sofia*. Publishing House of the Bulgarian Academy of Sciences, Sofia.

Spaabæk, L. R., & Mazurek, J. (2020). Binding *Media and Coatings: Mummy Portraits in the National Museum of Denmark and the Ny Carlsberg Glyptotek*. In M. Svoboda, & C. R. Cartwright (Eds.), Mummy Portraits of Roman Egypt: Emerging Research from the APPEAR Project, (pp. 148–152). Getty Publications.

Спасић-Ђурић, Д. (2015). *Град Виминацијум*. Народни музеј Пожаревац.

Stojić, G. (2015). *Nalazi bula sa nekropola Viminacijuma*. [MA theses, Faculty of Philosophy, Belgrade].

Thompson, D. L. (1982). *Mummy Portraits in the J. Paul Getty Museum*. The J. Paul Getty Museum.

Wilburn, A. T. (2012). *Materia Magica. The Archaeology of Magic in Roman Egypt, Cyprus, and Spain*. The University of Michigan Press.

MAGIC AND APOTROPAIC DEVICES FROM *BRACARA AUGUSTA* (THE CAPITAL OF ROMAN *CALLAECIA*)

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Summary
Amulets and talismans, magical-apotropaic objects, are not just decorative, but practical tools used to manage hostile forces. They are designed to ward off all kinds of dangers and illnesses and attract good luck, health, and fortune, particularly in situations of fragility and precariousness. The belief that particular objects can promote positive energies through magic is one of the first affirmations of human skills to manage the hostile forces encountered. Therefore, they often appear as an integral part of healing practices. Magical-apotropaic objects appear and are shared by primitive civilisations.
The collection of amulets from *Bracara Augusta*, the capital of the Roman Province of *Callaecia* (or *Gallaecia*), founded by Emperor Augustus in 15 BCE in a region occupied by an indigenous Celtiberian population, were classified according to their purpose. This classification is significant as it provides insight into the specific dangers and needs of the people of that time, and how they sought protection and prosperity. These amulets, unique in their purpose, were designed to protect from natural phenomena, such as lightning strikes and storms, to ward off spirits, to be propitious against bad luck, and to encourage fertility and abundance.
Some of these items are typically Graeco-Roman. However, others reveal fascinating connections between the city and ancient Neolithic artefacts, the Celtic traditions of the *Bracaros*, and relations with other Roman cities in Portuguese territory. They also point to intriguing religious and cultural exchange with Phoenician and Middle Eastern traditions, sparking curiosity about the interconnectedness of ancient cultures.
Through these amulets, with their rich tapestry of religious and cultural exchange, we can trace ancient magical-apotropaic beliefs from the Neolithic down to the Graeco-Roman and neighbouring cultures.

Keywords: *Bracara Augusta*; Graeco-Roman medicine; Magical-religious medicine; Amulets

Introduction

The word 'amulet', from the Latin 'amuletum', meaning 'warding off evil', derived in turn from the Arabic *'hamulet'*, arrived in the West by the time of Pliny the Elder (23-79 AD) as 'amuletum' (Kleiss, 1964). This knowledge is based on scholarly research and findings from experts such Ekkehard Kleiss (1918-2006). According to the British Egyptologist Sir Flinders Petrie (1853-1942):

> The belief in the magic effects of inanimate objects on the course of events of some of the lower stages of the human mind in seeking principles of natural action; it belongs to a condition of the intellect so low as to be incapable about clear reason about cause and effect. Yet, it has become so ingrained a habit of thought during the vast ages before observation and induction were developed, that it survives the rise of knowledge and reasoning among most people (Petrie, 1914, p.1).

Archaeological findings reveal remarkable concerns about sexuality and fertility, exemplified in the creation of the earliest amulets, such as the Venus from the Hohle Fels Cave in Germany, discovered in 2008. The figurine, dating back to the Aurignacian (c. 35,000 BCE), in terms of figurative art, is the oldest human figure discovered so far. It was carved in mammoth ivory and depicts a woman with marked sexual traits. Her vulva, swollen and semi-open, as is the case following childbirth, is a striking representation of early understanding of fertility. The residual loop at the top of the neck, through which a thread could pass, indicates that it was used as an amulet, the earliest found in human history (on this subject, see Conard & Kölb, 2008) (Figure 1).
In later periods, amulets evolved to protect against all kinds of dangers and even prevent and heal diseases.

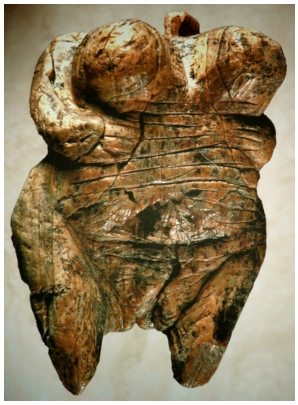

Figure 1 – Paleolithic figure Venus of Hohlefels. Mamoth ivory. 35,000 BC. H: 60mm. Prehistoric Museum of Blaubeuren (Urgeschichtliches Museum Blaubeuren). Public domain (File:VenusHohlefels2.jpg).

Early human creativity knew no bounds, as they turned everything into amulets, including stones, metals, pieces of fabric, parts of animals, figurines, dolls, necklaces, toys, bones, leaves, and dried flowers. They were often counted amongst the numerous remedies to which medicine empirically resorted to alleviate or prevent physical ailments (Penso, 1984, p. 65). Of particular interest were those for which no efficacious therapy was known, as referred to by Pliny, the Elder (CE 23/24–79):

> In quartans, ordinary medicines are practically useless; for which reason I shall include several of the magician´s remedies and, in the first place, the amulets they recommend. (Pl. N.H. XXX, 96, 1963, p. 341).

The word 'charm' usually means the same as 'amulet'. Talismans had a similar function but usually were not worn and had a specific function (Skinne, 2014, pp. 159-168). The Italian ethnographer Guiseppe Bellucci (1844-1921) viewed amulets as a chapter of popular psychology and classified them based on the following categories:

1 - Referring to natural phenomena
2 - Therapeutic
3 - To ward off evil spirits
4 - Propitious or against bad luck in its many manifestations (Bellucci, 1912, p. 10).

In this essay, we will present and discuss magical and apotropaic devices discovered during the excavations of Bracara Augusta, the capital of Roman Callaecia, currently Braga in the north of Portugal, following Bellucci's classification.

Bracara Augusta

Although some of *Bracara Augusta*'s historical records have been preserved by classical authors and archaeological findings since the XVIth century, the city's true historical significance started to be unveiled in 1976 when it was finally excavated. Emperor Augustus, a towering figure in Roman history, founded the city in 15 BCE (Figure 2). His influence, combined with the rich culture of the Bracaros, a Celtic tribe, led to the city's flourishing in the IInd century CE. The Archaeological Museum D. Diogo de Sousa houses a diverse collection of apotropaic devices discovered in Alto da Cividade (Top of the Cividade Hill), home to a theatre and a bath building, and various other structures, including residences, a necropolis; some are isolated findings. The devices, like grooming and medico-surgical tools date back to the period of Ist– IVth century CE (on this subject see Barroso, 2022). The Roman city is still visible in Braun & Hogenbergs' map from 1594 (Figure 2a).

Magic and apotropaic devices

We will address the set of amulets and talismans discovered in *Bracara Augusta*, a significant find that sheds light on the beliefs and practices of the ancient inhabitants. The first group relates to natural phenomena. Despite the prevalence of amulets associated with healing practices, the devices from Bracara Augusta do not fit into his second group, which is related to therapeutic practices. Most fit into the third group (to ward off evil spirits) and the fourth group (propitious or against bad luck, in its many manifestations) of the categories enunciated by Bellucci (Bellucci, 1912, p. 10).

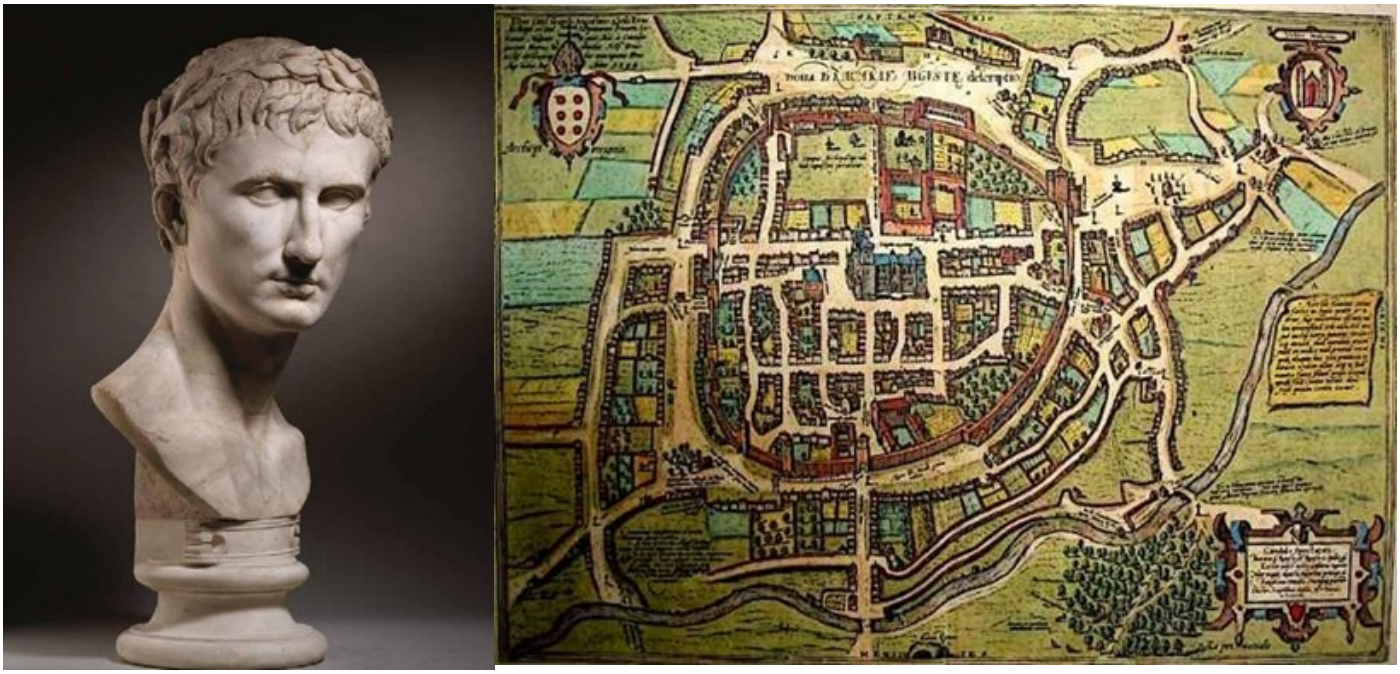

Figure 2 - Portrait head of Emperor Augustus crowned with a laurel wreath. Marble. Late Ist century BC. H.:62 cm including XVIIIth century marble socle. Inv. 2019.0178. Figure 2a - Map of Bracara August in Frans Hogenberg, Civitates Orbis Terrarum, 1594.

Lightning stones

Amulets and apotropaic objects, with their profound cultural significance, have been passed down to us with functions extending beyond those related to fertility and abundance. Some, related to natural phenomena, comprised a wide range of objects such as fossils (belemnites or shark teeth), meteorites and Neolithic stone artefacts. *Cerauniae* were highly regarded as missiles of the thunder, sent by the thunder god and highly valued for their magical powers (Rätsch & Guhr, 1989, p. 58).

According to José Leite de Vasconcellos (1858-1941), the founder of the National Museum of Archaeology in Lisbon, the so-called "pedras-de-raio" (lightning stones) were related to the Germanic god Thor and the Gaulish god Taranis, whose attribute was the hammer (a symbol of thunder). These stones were commonly referred to as aerolites, and some were polished stone artefacts from the Neolithic period. The belief was that lightning, a manifestation of the power of these thunder gods, penetrated the earth and turned into stone: spearheads and prehistoric axes were said to be such stones. It was also believed that where they were found, lightning could not strike a second time (Vasconcellos, 2007, pp. 229-230). These stone tools were used in the earlier Neolithic in Central Europe and found in the Roman context. Polished stone adzes were Neolithic woodworking tools, rare in Portugal (Novak, 2007, pp. 195-220). In Roman times, they were thought to protect houses and people against lightning (Faraone, 2018, p. 2).

Two polished stone adzes (which differ from axes, hafted with the cutting edge parallel to the handle because they are provided with a cutting edge at a right angle[1]) were unearthed in the excavations from *Bracara Augusta*. The top of an amphibolite adze is missing (Nr. 1992.0995) (Figure 3). A fragmented hole is visible in a sillimanite adze (Inv. Nr. 2000.0236) (Figure 3a). The amphibolite adze came from a building, possibly a house, in Insula das Carvalheiras. The sillimanite adze is an isolated finding.

According to Vasconcellos, the Portuguese people, mainly from the North of the country, credited Neolithic stone adzes or *Ceraunia* with mighty magical powers (Vasconcellos, 2007, p. 230; 1882, p. 63). One had been found by Francisco Martins Sarmento (1833-1899), also an eminent Portuguese archaeologist who excavated the Celtic *castros* Citânia de Briteiros and Sanfins from which the population of *Bracara Augusta* had originated (Lemos, 2008, pp. 203-239). Carlos Galrão (1857-1953) was an archaeologist from Mafra who owned one of these rare findings:

> The people call lightning stones (also thunder stones in Neiva, Minho, as Mr Sarmento told me), not only prehistoric stones (I own one, found in the municipality of Mafra, and which is a small polished stone axe). (Vasconcellos, 1882, p. 63).

The Latin grammarian and historian Gaius Solinus who lived in the 1st half of the IIIrd century CE, mentioned these stones in his work De Mirabilis Mundi when speaking about Roman Lusitania (Solinus, 2014)[2]. Solinus stated that here Ulysses had found the city of *Olisipo* by the Tagus river and that the Tagus was preferred to others because of its gold-bearing sands[3].

Among many precious stones from Lusitania, Solinus highlighted *Ceraunia*e, which were preferred to the Indian examples. Their colour was the same as the Greek *Pyropus* (meaning 'which brings fire'), since their quality came out with fire . The stone endured the flames without harm and was thought to offer help against lightning[4]. Solinus' testimony highlights how *Ceraunia*e were highly valued in Antiquity.



Figure 3 – From right to left: Amulet. Front and profile. Amphibolite Adze. H: 430 mm W: 30 mm. Inv. Nr. 1992.0995. Figure 3a - Amulet. Front and profile: Silimanite Adze. H: 370 mm W: 20 mm. Inv. Nr. 2000.0236. Photo credit: MADDS/Manuel Santos.

[1] https://stonetoolsmuseum.com/artefact/europe/stone-adze-4/2870/ accessed November 12, 2024.

[2] Pre-Roman Lusitania comprised the land North of the Daurius River, present-day Galicia and the space between the Daurius and Minho rivers, known as Callecia. At the end of the reign of Augustus, the Roman province of Lusitania was created, comprising the regions South of the Daurius River to the south of Portugal up to Alentejo and Algarve and included the regions of current Spanish Extremadura in Castile and León (Vasconcellos 1897, pp. XX-XXI).

[3] *Ibi oppidum Olisipone Ulixi conditum, ibi Tagus flumen. Tagum ob arenas auríferas ceteris praeterunt* (Sol. Coll. XX, XXIII, 2014, p. 5).

[4] *Lusitanum litus floret gemma, ceraunio Plurimum, quod etiam Indicispraeferunt , huius cerauni color est e pyropo; qualitas igni probatur; quem si sine detrimento sui perferat, adversaum vim fulguraum creditur opitulari* (Sol. Coll. XX, XXIII, 2014, p. 5).

Perforated coin

Veneration of stones with holes is attested in megalithic dolmens, passages and grave galleries, stone slabs and parting walls, conveying the belief in their miraculous powers, derived from the magical recreation of passing through the narrow birth canal. This phenomenon occurred in several European regions (Gimbutas, 2021, p. 158). This belief evolved into venerating naturally perforated stones and manufactured drilled tools, which became highly valued amulets.

The Druids (priests and medicine men from Celtic tribes) extolled naturally drilled stones, artefacts or concretions. They used them as amulets credited with being all curing and used for divination. It was said that whoever could really see through the hole would be able to access hidden realities. Many people still consider small stones with round holes lucky charms (Rätsch & Guhr, 1989, p. 108). Drilled stones were also symbols of the passage of birth in initiation rituals. It was believed that the Druids taught that the soul did not die with the body but that it passed into another body (Rolleston, 1993, p. 17).

A perforated bronze coin, shrouded in mystery with a central female figure, possibly of a goddess (a healing goddess?), is an intriguing and challenging artefact from the excavation of ìnsula das Carvalheiras. Inv. No. 1992-0254) (Figure.4).



Figure 4 - Perforated coin. Copper alloy. H: 280mm W: 25 mm. Inv. Nr. 1992-0254. Photo credit: MADDS/Manuel Santos.

The Bracaros, a Celtic people who inhabited the region before the Roman occupation of *Bracara Augusta*, have left significant traces in their language, place names, and culture. The perforated bronze coin falls into the category of drilled artefacts.

Perforated amulets appeared in a Celtic funerary medical context. Two pieces of limestone with natural holes and a bone needle found among other amulets and trepanning tools were part of the funerary equipment of a couple of skeletons. In life they had been Celtic healers, which means that this was the burial site of the earliest woman healer found so far. The grave goods were unearthed in the necropolis in Putzendorf, in current Dürrnberg in Austria from around 400 BCE, and belonging to the Iron Age La Tène Culture (c.450 - c. Ist century BCE). Tombs with skeletons with trepanned skulls were found around the couple's tomb, presumably trepanned by them (Breitwieser, 2003, pp. 147-153). Celtic healers were skilled at trephining, having developed their own instruments for this purpose (Künzl, 2002, Figure 6; for further reading on Celtic medicine, see Barroso, 2015, pp. 807-822).

Nutshell

A ceramic amulet in the shape of a nutshell (Inv. No. 1992.0859) (Figure 5) also came from the excavation of Insula das Carvalheiras, the same location where the perforated coin was discovered. The two finds could be related since trees and their fruits were sacred among the Celts (Krämer, 2002, 152-163). Metal containers in the form of a nut have been discovered in the Roman world (Faraone. 2018, p. 85). Pliny describes the structure of walnuts and refers to them as consecrated to weddings:

> The walnut (…) is protected by a double covering, consisting first of a cushion-shaped cup and then of a woody shell. This is the reason why walnuts have become emblems consecrated to weddings, because their progeny is protected in so many ways. (Pliny *NH,* Book XV, Chapter 24,1945, p. 349).

In this way, the ceramic nutshell may carry the original significance of the sacred fruits among the Celts, being invested by a new protection to marriage among the Romans.



Figure 5 - Nutshell. Ceramic and drawing. H: 320 mm W: 220 mm. Inv. Nr. 1992. 0254. Inv. Nr. 1992.0859. Photo credit: MADDS/Manuel Santos.

Hollow glass tube shaped devices

A set of apotropaic devices is represented by a long tube -shaped glass, hollow and carrying a phylactery, a small papyrus or parchment scroll with magic and apotropaic spells that originated in the Middle East. Two amulets of this type were found in Balsa (Ribeiro, 2002, pp. 483-489). The priests made phylacteries which were part of a larger rite associated with Jewish religious practices. The high priests wore phylacteries in the temple of Jerusalem before its destruction in 70 CE (Skinne, 2014, pp. 159-168).

The tubular device in black glass with yellow veins and a suspension element, broken at one end dating to the IIIrd/IVth century CE (Inv. No. 1996-1065) (Figure 6), is hollow and came from the Largo de S. João do Souto excavation.



Figure 6 - Amulet, Case Type. Black and yellow Glass. H: 430 mm W: 150 mm. Inv. Nr. 1996. 1065. Photo credit: MADDS/Manuel Santos.

A second black glass tubular device with helical decoration and suspension element, broken at one end, dating to the IIIrd/IVth century is also hollow (Inv. Nr. 1997-0930) (Figure 7) and came from the nearby excavation of Rua de S. Geraldo. A similar amulet was found in Balsa (Ribeiro, 2002, pp. 483-489; Barroso, 2014-2015, pp. 483-489).



Figure 7 - Amulet in the shape of a long tubular case. Black glass. H: 43mm W: 115 mm. Inv. Nr. 1997.0930. Photo credit: MADDS/ Manuel Santos.

We do not know if the latter specimens ever had any phylactery inside. However, they were shaped suitably to contain one. The Jews presumably arrived in Rome from North Africa between 63 BCE and c.100 CE. The Phoenicians arrived in the Iberian Peninsula in the VIIIth century BCE as traders and, later, as settlers. They were Semitic people related to the Jews. A Jewish community was possibly settled in Carthage as early as the IIIrd and IInd centuries BCE. They also may have come from Palestine and Rome. Archaeological evidence points to traces of these peoples in Portugal (Simões Rodrigues, 2006, pp. 9-34).

Bell shaped pendant

In Ancient Egypt, children were likely to have felt secure with the protective bronze bell pendants they wore around their necks. The earlier examples were adorned with the head of the god Bes, who was believed to be the protector of children. In Rome, children wore small bell pendants with a strong belief in their power to ward off evil spirits and protect them from harmful influences (Petrie, 1914, p. 11). Their use also dates back to the Assyrians. Bell shaped pendants from Pompei appear suspended from phallic amulets. Their Latin name is 'tintinabula'. They appear all over the Empire in children's graves or in tiny bracelets (Faraone, 2018, pp. 85-86).
Small bell pendants have also been recovered from *Bracara Augusta*. The bell pendant (Inv. Nr. 1991.2027) (Figure 8) was not discovered in a grave but at the Top of the Cividade Hill.



Figure 8 - Bell pendant. Copper alloy. H: 220 mm W: 250mm. Inv. Nr. 1991. 27. Photo credit: MADDS/Manuel Santos.

Phallic amulets

Phallic amulets are frequently encountered in Graeco-Roman times. There is no trace of their existence in Ancient Egypt (Petrie, 1914, p. 11). They are common apotropaic devices, which stand as a homage to the creative power and to the act of generation and creation (Mortillet, 1876, pp. 4-16). Roman phallic amulets and talismans have been unearthed in *Bracara Augusta*: two phallic pendants and four phallic objects, certainly placed in special locations of dwelling houses as talismans.



Figure 9 - Phalus amulet. Copper alloy. H: 320 mm Max W: 250 mm. Inv. Nr. 1991.2637. Figure 9a - Phallic Pendant. Copper alloy. L: 40mm Max W: 290 mm. Inv. Nr. 2001.0452. Figure 9b - Phallic Pendant. Copper alloy. L: 370 mm Max W: 190 mm. Inv. Nr. 1991.2631. Photo credit: MADDS/Manuel Santos.

The phallic amulet (Nr. 1991.2637) (Figure 9) from the Top of the Cividade Hill, a significant historical artefact, was probably a talisman. The phallic pendant (Inv. Nr. 2001.0452) (Figure 9a) from Quinta do Fujacal, on the outskirts of *Bracara Augusta*, and the phallic pendant (Inv. Nr. 1991.2631) (Figure 9b), found at the Top of the Cividade Hill, are both amulets. The phallic figurine (Inv. Nr. 1991.2685) (Figure 10), found at the Thermal Buildings on the Top of the Cividade Hill, was possibly placed there as a talisman.



Figure 10 – Front and back: Phallic figurine. Copper alloy. L: 440 mm W: 20 mm. Inv. Nr. 1991.2685. Photo credit: MADDS/Manuel Santos.

Black glass pendants in the form of a pomegranate

Five amulet pendants of black glass were recovered from *Bracara Augusta*. Only one is complete (Inv. Nr. 2006. 0309). The hanging loop of the other four pendants is fragmented. The amulet (Inv. Nr. 2006. 0309) (Figure 11) has the shape of a pomegranate and also came from the Top of the Cividade Hill. The pomegranate was a Graeco -Roman symbol of female fertility. Its origin was Carthaginian. Pliny mentions the existence of "nine kinds [of pomegranate] among the trees of Carthage" (Pl. *NH*, Book XV, Chapter XI, 1945, p. 315). A similar pendant from the Roman city of Balsa is housed in the National Archaeological Museum in Lisbon. These amulets have also been interpreted as representing an acorn, a symbol of male fertility (Ribeiro, 2002, pp. 483-489).



Figure 11 - Amulet pendant in form of a pomegranate. Black glass. L: 19mm W: 23 mm. Inv. Nr. 2006. 0309. Photo credit: MADDS/Manuel Santos.

Vitreous paste amulets

Three amulet pendants of vitreous paste were unearthed at the Necropolis of Via XVII in the Oriental part of the city, encompassing archaeological discoveries at the Post-office Building and Avenida da Liberdade near the exit of Via XVII (*Bracara Augusta - Asturica Augusta*) by *Acqua Flavis*, currently Chaves (Martins & Delgado, 1998-1990, pp. 41-186). Some tombs of this necropolis belong to the final Bronze Age. The amulets came from the tomb INC129, late I[st] cent. BCE/early I[st] century CE (Braga, 2010, p. 26). It is possible that these pieces belonged to a necklace chain.

The amulet pendant in the form of a pine cone or acorn (Inv. Nr. 2009. 0741) (Figure 12) is similar to an Iron Age Punic pendant housed in the National Museum of Archeology in Lisbon, unearthed in a complex of necropoleis located on a hill, 1 km from Alcácer do Sal, in Alentejo[5]. It is part of a challenging set of Egyptian and other Phoenician amulets and charms, like a container made from an ostrich egg. These sets of amulets are rare in the Peninsular Southwest, appearing more frequently in funerary environments of Lower Andalusia, in Spain (On this subject, see Gomes, 2021, pp. 349-356).

The amulet pendant in the shape of a fist with crossed thumb and forefinger (Inv. Nr. 2012.0307) (Figure 12a) is a frequently found typology related to phallic amulets since the fist represents the fertility of the female genital organs in ancient Egyptian and Roman times (Mortillet, 1876, pp. 4-16). The altar-shaped pendant (Inv. Nr. 2012.0306) (Figure 12b) is an unusual type in Roman times. Amulets in the shape of an altar with food offerings were found in the necropoleis of the Ancient Egipt (Petrie, 1914, p. 11).



Figure 12 - Pomegranate-shaped amulet. Vitreous paste. I[st] half of the I[st] century AD. H: 23mm W: 9mm. Inv. Nr. 2009. 0741. Figure 12a - Amulet in the shape of a fist with crossed thumb and forefinger**.** Vitreous paste. I[st] half of the I[st] century AD. H: 2mm W: 70mm. Inv. Nr. 2012.0307. Figure 12b - Amulet in the shape of a shrine. Vitreous paste. I[st] century AD. H: 15mm W: 90 mm. Inv. Nr. 2012.0306. Photo credit: MADDS/Manuel Santos.

In the face of the Egyptian and Phoenician amulets from the necropolis of Alcácer do Sal, the set from the tomb of the necropolis XVII from *Bracara Augusta* present a similar pattern, including the fist, which was also common

[5] http://www.matriznet.dgpc.pt/MatrizNet/Objectos/ObjectosConsultar.aspx?IdReg=136525, accessed on 24 July 2023

in the Ancient Egypt and Rome. These findings provide evidence of a long-lasting presence and cultural and religious relations between the Semitic peoples from the north of Africa and the peoples from the Iberian Peninsula.

Conclusion

The excavations of *Bracara Augusta* have yielded valuable insights into aspects of Roman everyday life in Portugal. The collection of amulets provides a vivid picture of the prevalent views of the time concerning primitive and popular magical traditions and their role in magical protection. These amulets also reveal appealing connections between the city and ancient Neolithic artefacts, the traditions of the *Bracaros*, and relations with other Roman cities in modern day Portugal.

Some of the items unearthed in *Bracara Augusta* are typically Graeco-Roman. However, others reveal a fascinating mix of influences, pointing to religious and cultural exchange with Phoenician and Middle Eastern traditions, sparking curiosity about the complex interconnectedness of ancient cultures.

Through these amulets, we can trace the evolution of ancient magical-apotropaic beliefs from the Neolithic down to the Graeco-Roman and neighbouring cultures.

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References

Barroso, M.D.S. (2014-2015). Medicine, surgery, pharmacy, toilet and other health care tools from the Roman city of Balsa (Portugal), in the Ist to the IIIrd century A.D., O *Arqueólogo Português,* Série V (4/5): pp. 341-373.

Barroso, M.D.S. (2015). A medicina entre os Celtas, do período La Tène à ocupação romana. Em Domingues, F. C, Horta, J. S. & Vicente, P. D. (eds), *D'Aquem, D'Além e D'ultramar. Homenagem A António Dias Farinha*" (pp. 807-822). Centro De História da Universidade de Lisboa, Vol. I.

Barroso, M.D.S. (2022). Roman Medical-Surgical Instruments from the Archaeological Museum D. Diogo de Sousa, Braga. Em Barroso, M. D. S., Duffin, Martins & Silva, J. (eds). *Insights into Portuguese Medical History: From the Birth of the Art of Asclepius* (pp. 17-57). Cambridge Scholars Publishing.

Bellucci, G. (1912). *Esposizione Internazionale di Igiene Social in Roma sotto l'altro patronato di S. M. Regina Elena*. Unione Tipografica Cooperativa.

Braun, G. & Hogenberg, F. (1598). *Civitates Orbis Terrarum*. Coloniae Agrippinae (No publisher) vol. 5-6 (Latin ed).

Braga, C. M. V. B. (2010). *Rituais funerários em Bracara Augusta: o novo núcleo da Via XVII*, DA. Universidade do Minho. [Tese de mestrado] https://repositorium.sdum.uminho.pt/handle/1822/13913

Breitwieser, R. (2003). Celtic Trepanations in Austria (147-154). Em Arnold, R.; Stanley Finger, S. & Smith, C.U.M. (eds). *Trepanation, History, Discovery, Theory* (pp. 147-154). Swets & Zeitlinger Publishers.

Conard, J & Kölb, S. (hrg.). (2008). *Die Venus von Hohle Fels*. Urgeschichtliches Museum Blaubeuren.

Faraone, C.A. (2018). The Transformation of Greek Amulets in Roman Times. University of Pennsylvania Press.

Gimbutas, M. (2021). *The Language of the Goddess. Unearthing The Hidden Symbols Of Western Civilization*. Thames & Hudson.

Gomes, F. B. (2021). *A necrópole do Olival do Senhor dos Mártires (Alcácer do Sal, Portugal) Práticas Funerárias, Cultura Material e Identidade(s) na Idade do Ferro do Baixo Sado (séculos VII – II a.n.e.)". Estudos & Memórias* 17. UNIARQ/FL-UL, pp.349-356).

Kleiss, E. (1964). *Historia de la Embriologia y Teratologia en la Antiguidad y Epocas Pre-Colombinas*. Faculdad de Medicina.

Krämer, C. (2002). *Die Heilkunst der Kelten*. Verlag Hermann Bauer.

Künzl. E. (2002). *Medizin in der Antike. Au seiner Welt ohne Narkose und Aspirin*. Theis Verlag.

Lemos, F. S. (2008). Antes de Bracara Augusta. *Forum*, 42.43 Julho/Jan: pp. 203-239.

Martins, M. & Delgado, M. (1989-1990). As necrópoles de Bracara Augusta. Os dados Arqueológicos. *Cadernos de Arqueologia*, [2] (6-7): pp. 41-186.

Mortillet, G. d. (1876): Contribuition à l'Histoire des Superstitions. Les amulettes romaines et gallo-romaines. *Revue d'Anthropologie*, pp. 4-1.

Nowak, K. (2007). Approaching linear pottery economics – distribution and supply of amphibolite adzes (373). Em Posluschny, A.; Lambers, K.; Herzog, I.(Hrsgg.): *Layers of Perception. Proceedings of the 35th International Conference on Computer Applications and Quantitative Methods in Archaeology* (CAA) (pp. 195-220). Koll. Vor- u. Frühgesch. 10. Bonn 2008 373. DOI:10.11588/propylaeumdok.00000513

Penso, G. (1984). *La Médecine Romaine. L'Árt d'Esculape dans la Rome antique*. Éditions Dacosta.

Petrie, W. M. F. (1914). *Amulets. Illustrated by the Egyptian Collection in University College London*. Constable & Company LTD.

Pliny. *Natural History*. (1945). Edited by Jeffrey Anderson. Translated by H. Rackam Vol. IV. The Loeb Classical Library. Harvard University Press.

Pliny. *Natural History*. (1963). Edited by Jeffrey Anderson. Translated by Jones, W.S. Vol. VIII. The Loeb Classical Library. Harvard University Press.

Rätsch, C. & Guhr, A. (1989). *Lexikon der Zaubersteine*. VMA Verlag.

Ribeiro, J. C. (2002). Arcana Magiqve. Em Ribeiro, J.C. (org.). *Religiões Da Lusitâmia, Loquuntur Saxa* (pp. 483-487). Instituto Português dos Museus.

Rolleston, T. W. (2003). Guia *Ilustrado de Mitologia Celta* (*The Illustrated Guide to Celtic Mythology*) (Intr. Cotterell. A.). Círculo de Leitores.

Simões Rodrigues, N. (2006). Os Judeus na Hispânia na Antiguidade. *Cadernos de Estudos Sefarditas*, (6): pp. 9-34.

Skinne, S. (2014). Refining the Definition of Amulet, Phylactery, Charm, Lamen and Talisman as they appear in the *PGM* and the grimoires. Em *Techniques of Graeco-Egyptian Magic* (pp.159-168). Golden Hoard.

Solinus, G. J. (2014). *Wunder der Welt,* Lateinisch und Deutsch. Eingeleitet, übersetzt und kommentiert von Brodersen, K. Wissenschafliche Buchgesellschaft.

Vasconcellos, J. L. (1882). *Religiões da Lusitânia* Vol. I. Imprensa Nacional.

Vasconcellos, J. L. (1897). *Tradições populares* de Portugal. Livraria de Clavel & c.a.

Vasconcellos, J. L. (2007). *Etnografia Portuguesa* Vol. V. Imprensa Nacional Casa da Moeda.

OBJECTS OF SUPERSTITION AND RELIGION. AMULETS IN TAVIRA'S ARCHAEOLOGICAL RECORD

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Summary
The archaeological work carried out in the municipality of Tavira has revealed a significant number of objects, made of metal, ceramic and bone, which could be interpreted as amulets.
The first known amulets in Tavira date back to Roman times and come from the Quinta de Torre de Ares. These are pendant amulets with a phallic shape and in the shape of a jug, dated between the IIIrd and IVth centuries AD.
From the Islamic period (XIIth-XIIIth centuries) we highlight two objects: a fragment of tile containing an inscription surrounded by six-pointed stars; and a ceramic fragment with the 'khamsa' (five), also known as the 'hand of Fatima', one of the most common amulets in these communities.
From the Medieval and Modern periods, we can identify various medals expressing Marian devotion, bearing the image of the Immaculate Conception and the Virgin Mary.
In a world dominated by uncertainty and the unknown, these objects were used with various intentions, either to ward off the evil eye, or bad luck, or to ask for help in curing diseases.

Keywords: Tavira; archaeology; amulets.

Introduction

Tavira is located in the south of Portugal, more precisely on the hill of Santa Maria, at an elevation of around 30 metres, located on the right bank of the River Gilão near its mouth (Figure 1).



Figure 1. Location of Tavira in the south of the Iberian Peninsula.

Archaeological work carried out on the city's genetic hill revealed the presence of a Bronze Age occupation, overlaid by Iron Age levels. From the second half of the VIIIth century BC onwards, the exhumed remains show markedly oriental characteristics, indicating the existence of commercial contacts with the Mediterranean area and western Phoenician colonies.

During the Roman presence in the south of the Iberian Peninsula, Tavira was abandoned sometime between the IVth and Ist centuries BC. Apparently, the region's residential centre was established in *Balsa*, one of the great cities of southern *Lusitania*. However, the decline of this important urban center from the 6th century onwards marked the (re)birth of the city of Tavira.
The first signs of occupation of the Santa Maria hill in Islamic times date back to the XIth century, on the south-southeast side. The intensification of this occupation transformed Tavira from a small *qarya* (*alcaria*), protected by a small *hisn*, into a *mādina* (city) in the middle of the XIIth century.
After the Christian conquest in 1242, the city continued to grow, and by the end of the 13th century it occupied a walled area of around five hectares. During the XIVth, XVth and XVIth centuries, the commercial and maritime activity recorded by the port of Tavira resulted in strong economic development and significant urban growth.

Amulets in the archaeological record

The word amulet derives from the Latin *amuletum*, a noun derived from the verb *amoliri*, which means to separate, to move away from oneself. Thus, the amulet is something that is used with the aim of warding off evil, acting to protect its owner from ailments, such as the evil eye or bad influences (Cano López, 2008, p. 311).
Although the first amulets may have been elements collected from nature, to which symbolic power was attributed, the artefacts presented here were shaped by

human hands and are an essential part of the life of the communities that once inhabited the Tavira region. These objects reflect the way these populations related to the universe around them, their beliefs and traditions, but also their daily practices.

The amulets mentioned above were recovered during archaeological interventions carried out in the municipality of Tavira, and mostly come from residential and/or funerary contexts. Their identification as amulets took into account the context from which they came, as well as the iconography, symbolism, material, shape and exoticism of the material of which they were made.

It should be noted that some of these objects come from contexts of secondary deposition and are therefore of low chronological reliability, so whenever possible we tried to identify archaeological parallels in order to better understand the object and its context.

Amulets and superstitions

Pilgrim's *Ambula*

Since ancient times, pilgrimage to sacred sites has been part of the spiritual and religious experience of human communities. By walking the paths of the 'sacred', trodden by mythologized characters, the pilgrim expresses veneration, religious fervour, getting closer to the path that leads to salvation.

These artefacts are souvenirs of the pilgrim's journey and can be displayed on hats or capes, conferring status and prestige on their bearer. They are usually used to carry, above all, sacred oils or water, which is why miraculous virtues, namely healing and apotropaic properties, are attributed to them.

The three objects considered here reproduce the shape of *ampullae*, or small flasks, made of lead alloy, with a subcylindrical or lenticular body, a neck and two small handles that were mainly used for suspension. The faces show motifs in high relief.

The *ambulas* from the Convento da Graça and Rua das Olarias, n.º 7 show plant motifs on both sides (Figure 2 and 3). These 'pilgrim signs' are similar to the objects from Palmela (Fernandes & Santos, 2008, p. 71, fig. 17) and Torres Vedras (Cardoso & Luna, 2012, p. 168, figs. 23 e 24), which can be allocated to XIVth and XVIth century contexts, respectively. Although the third insignia comes from the city of Tavira, it was not possible to determine its place and context of origin (Gomes, 2011, p. 283). This artefact shows the head of Christ on one side and the *Agnus Dei* on the other.



Figure 2. Pilgrim's Ambula. Rua das Olarias, n.º 7. © António Cunha



Figure 3. Pilgrim's Ambula. Rua das Olarias, n.º 7. © António Cunha

Medal

The religious medal, as a support for venerated images, acquired protective and intercessory characteristics, being a privileged means of dialogue with the sacred. This object also had the function of spreading Christianity and the Church's message (Mourão, 2005-07, p. 319).

Devotional medals were intended for personal use. Their small size facilitated their proliferation, nourished devotion and popular piety (Mourão, 2005/07, p. 320). These objects could be worn around the neck, pinned to clothes or hats, or be a component of rosaries (Teixeira & Gil, 2012, p. 676).

The three medals presented here are related to the Marian cult. According to this devotion, the mother of Jesus became, after her son, the privileged intercessor between God and mankind (Mourão, 2005/07, p. 323). Two of the pieces come from the Convento da Graça (one octagonal and the other oval), while the third is from Calçada de D. Ana. The obverse shows the image of the Immaculate Conception and the Virgin Mary and the reverse the image of the Holy Eucharist. The oval-shaped specimen - Convento da Graça - was part of a rosary made up of 165 beads - oval and cylindrical - in vitreous paste, of different sizes, blue (14) and white (151).

We have found parallels in pieces from Castelo Branco's castle, dating from the XVIth-XVIIth centuries (Boavida, 2011, p. 26, medal 1).

Crucifix

The crucifix is a cross with an image of Christ on it and is a symbol of veneration for the sacrifice of Jesus Christ, in Christian belief and tradition. It also symbolizes resignation in the face of life's sufferings and the path that God has destined for us. Its use as an amulet is intended to guarantee spiritual protection.

The first object (copper alloy) consists of the cross with the image of Jesus Christ. At the top of the cross, above the head, there is a plaque (anepigraph). These objects often bear the inscription I.N.R.I. (*Iesus Nazarenus Rex Iudaeorum* - Jesus of Nazareth, King of the Jews). The presence of a circular hole indicates that this crucifix could be worn as a part of a rosary or strung on a thread, thus functioning as a pendant (Figure 4).



Figure 4. Crucifix with the image of Jesus Christ. Rua das Olarias, n.º 7. © António Cunha

The second artefact, made of lead alloy, is probably an example of a recessed cross. It features a flat front with embossed decoration (circles, lines and plant motifs), while the opposite side shows a tapered edge and lines, also in high relief. Three of the ends have trilobed tips. This specimen shows similarities to a object from the Castelo Branco´s castle (Boavida, 2011, p. 25).

In relation to this type of object, we highlight two crosses in worked bone. The first shows the base wider than the body and the decoration is defined by incised and parallel lines. The second has a cross shape on each of its four arms. One of the arms has a perforation, possibly to be used as a pendant.

Lastly, a note for a set of rosary elements worked in bone. These come from the Mosteiro das Bernardas and the Convento da Graça, and are similar to those found in the cloister of the Lisbon's Academia das Ciências (Antunes & Cardoso, 2005, p. 80, fig. 11) and in Almada's Igreja da Misericórdia (Dias et al., 2017, p. 1688, fig. 4F).

'Figa'

In this chapter we highlight the presence of two amulets with the 'figa' hand, one from Roman times, and the other from modern medieval periods.

In Roman times, the *phallus* and the 'figa' were used in order to protect their bearer against the evil eye (Gómez Peña et al., 2021, p. 133). Countless past societies believed that a simple glance, whether intentional or not, could bring down on another person an infinite set of misfortunes and endless problems. Amulets representing sexual organs and/or gestures would serve as protection, helping to ward off the evil eye and, consequently, the nefarious power that it signified.

The use of amulets representing the male sexual organ has recurred over the centuries. These objects offer protection against the evil eye and are also considered a symbol associated with the fertility of the earth.

The 'figa' is the representation of a closed fist, with the thumb extended between the index and middle finger - *digitus impudicus*. This representation has a clear sexual symbology, representing the union of the human genitals of both genders (Gomes et al., 2020, p. 300).

From the Quinta da Torre de Ares (Luz de Tavira), there is a phallic amulet-pendant, with the hand in the pose of a 'figa', dating from the IIIrd-IVth centuries AD (Nolen, 1994, p. 182; Pereira, 2018, pp. 153-154).

In Solar Corte Real, a 'figa' jet was exhumed, with a circular hole at the proximal end, allowing it to be used as a pendant. Jet is a mineraloid form of lignite or low ranking coal which is black in colour and can be polished to give an intense, high quality shine or lustre. It is considered to possess various virtues and magical properties, capable of warding off demons, and preventing envy or the effects of the evil eye (Figure 5).



Figure 5. "Figa". Solar Corte Real. © Jaquelina Covaneiro

Belief in the protective properties of jet amulets leads to them being worn on the body in various forms, from jewelry to rings and 'figas'. Our specimen is similar to those found in Santarém, dated to between the XVIth and XVIIth centuries (Lopes & Ramalho, 2002, p. 202, figs. 246 and 247) and in Lisbon's Convento de Santana, which dates from the XVIth and XVIIIth centuries (Gomes et al., 2020, p. 307, fig. 2).

Amulet-pendant

From Roman times, we highlight a set of six glass amulets, black, and dated to between the IIIrd and IVth centuries AD, from Quinta da Torre de Ares (Luz de Tavira). These objects have been studied by Janet Nolen (1994), Mário Cruz (2009) and, more recently, Carlos Pereira (2018).

These amulets can take the form of a fruit or penis with a suspension ring, or the form of a jar, with a handle, an elongated cylindrical shape, respecting one of the

elements of Roman material culture directly related to the magical religious function inherent in this type of object. Considering other examples, Janet Nolen (1994, p. 182) and Carlos Pereira (2014, p. 153) suggest that the pendant amulets in the shape of a straw and a jug may have had a similar function to the *bullae*, intended to store and transport a *phylacterium*, i.e., a small roll of papyrus or parchment containing a magical formula of apotropaic content.

Astragalus

In recent years, several researchers have reflected on the symbolic significance of *astragalus* (Gilmour, 1997; Cavallini, 2020; Thomas et al., 2022), taking into account their presence in funerary and sacred contexts, from ancient Mesopotamia, through ancient Egypt, Greece, and Central Europe, among other cultures.

The geographical dissemination, the wide diachrony and the diversity of contexts allow us to consider not only their use as game pieces, but also their use in divinatory rituals and in ritual acts (offerings) in funerary or religious contexts (Gilmour, 1997, p. 173).

In the Iberian Peninsula, *astragalus* have been found in sanctuaries and necropoleis, whose spoils, funerary rites and religious practices reveal influences from Mediterranean communities, installed in the peninsular territory since at least the IXth century BC (Arruda, 2021, p. 92).

In Portugal, *astragalus* have been recorded from graves in the necropolis of Alcácer do Sal, dated to between the VIIth and VIth centuries BC, and which have been interpreted in symbolic terms (Cardoso & Arruda, 2016, p. 204). In Castro da Azougada (Vth century and first half of the IVth century BC), an *astragalus* has been identified, whose provenance context does not allow a secure chrono-typological attribution (Nabais & Soares, 2017, p. 934).



Figure 6. Astragalus. Convento de Nossa Senhora da Graça. © Susana Gonçalves

On the other hand, for the more recent chronological periods, the bibliography does not mention the presence, in an archaeological record, of astragali that could be associated with magical-symbolic practices or acts.

Our sample consists of four *Ovis aries* and/or *Capra hircus* astragali, two from the Arrabalde da Bela Fia and two from Convento da Graça. These elements come from residential contexts dated between the XIIth and XIIIth centuries. All the astragali have smooth faces, and two of them show a circular hole, one on the plantar side and the other on the lateral. The presence of these holes allows us to consider their use as amulet pendants.

The (re)use of animal bones is a recurring practice in many cultures. These elements are interpreted as the (physical) remnant of a living being, whose existence must be revered and respected. Thus, they are used as protective elements, since they embody the life force of the animal represented.

The other two astragali show smooth faces; for the moment we propose the hypothesis that they correspond to divination and/or game pieces (Figure 6).

Ursus arctos teeth

The use of animal teeth as amulets has been common practice since the Palaeolithic and the presence of a perforation through the root is frequent in order to allow its suspension, either in necklaces, bracelets or even suspend on clothing.

In the case of the dental elements in question, it was possible to determine that they belong to *Ursus arctos*, the Eurasian Brown Bear that symbolizes strength, power, but also knowledge and transformation. The symbolic use of dental elements of this animal is intended to guarantee protection against the idea of danger, which is expressed by the teeth of a 'beast'.



Figure 7. Urso arctus teeth. Parque de Festas. © Susana Gonçalves

In the intervention carried out at Parque de Festas two bear canines were identified in modern/medieval contexts. Both have a red colour as a result of the application of iron oxide, in the form of ochre (Covaneiro & Cavaco, in press) (Figure 7).

Since the Middle Ages, the hunting of species such as bear, wild boar and deer has been of enormous notoriety and was a pursuit therefore reserved for monarchs and ruling elites. In order to restrict the hunting of these and other species, such as rabbits and hares, *coutadas* were created (Álvares & Domingues, 2010, p. 11), thus consecrating hunting as a noble activity, practised in an elite environment.
Taking into account the dexterity and difficulty associated with capturing these animals, as well as the application of iron oxide to the dental elements, we consider it possible that they may have functioned as amulets and the possibility of a hunting trophy cannot be ruled out.

Small horns

As a symbol against the evil eye, these small horns are used for protection, an application that survives to the present day.
Our sample consists of six small horns from Convento da Graça (2), Arrabalde da Bela Fria (2) and Parque de Festas, dating from between the XIIth/XIIIth centuries (5) and the XVIIth/XVIIIth centuries (1).



Figure 8. Small horn. Convento de Nossa Senhora da Graça. © Susana Gonçalves

These objects are partially fragmented and have polished/sharpened edges which prevented identification of the biological origin of the bone remains. Of these elements, only one has a circular hole at the distal end, indicating its use as a pendant (Figure 8). The remaining elements may or may not be symbolically charged. In Silves, a group of objects very similar to those in our sample (without holes and of Islamic chronology) were interpreted as amulets (Gonçalves et al., 2007, p. 200, fig. 23).

Signs

Pentagram

The pentagram, or five-pointed star, has occurred in multiple cultures since ancient times, expressing the union of unequals, but also signifying marriage, happiness and fulfillment (Chevalier & Gheerbrant, 1982, p. 706).
In Christianity, the pentagram is associated with the five wounds of Christ and can be used, among other purposes, with the aim of avoiding and warding off evil.
During the archaeological excavation at Horta de S. Paulo[1], a dish from Seville (XVIth century) was found with a pentagram on the outer face. Since this sign appears in isolation, it is not easy to understand its meaning.

Hexagram

The hexagram, or six-pointed star, is imbued with magical significance and is associated with the figure of King David and Solomon, whose power extends to magic and the domain of genies, as attested to by the Koran itself.



Figure 9. Fragment of tile with the inscription - In the name of God, the merciful, the forgiving. Convento de Nossa Senhora da Graça. © Susana Gonçalves

The introductory formula *basmaLlah* (invocation of any purpose or action) surrounded by six-pointed stars was inscribed on a fragment of tile from the Almohad neighbourhood (XII/XIII) of Convento da Graça. The inscription is truncated, the author having mistakenly written - *In the name of God, the merciful, the forgiving* - instead of - *In the name of God, the forgiving, the merciful.* The *basmaLlah* was possibly followed by a request for protection (Figure 9).
The presence of this inscription on a roof tile attests to the homeowner's faith in the divine protection of the sacred word. He was probably asking for protection from bad weather, lightning or thunder.
This same invocation was inscribed on a ring stone from Paderne (Catarino, 2011, p. 52), and on a bovine scapula, collected in Silves (Gonçalves, 2011, p. 25), among others.

Khamsa

In the Islamic world, the representation of the *khamsa* (five), commonly known as the 'Hand of Fatima', is one of the most common amulets, as it represents the five pillars of Islam (Profession of Faith, Prayer, Charity,

[1] Archaeological work under the scientific responsibility of Fernando Santos and Paulo Botelho (Engobe Arqueologia e Património Cultural).

Ramadan Fast and Pilgrimage to Mecca), as well as the contours of the word Allah - God.

From Tavira, we highlight two objects with the representation of the *Khamsa* - an ablution basin from the Convento da Graça (Cavaco & Covaneiro, 2012, p. 52, piece 24) and a carving storage jar from the Horta dos Mouros (Cavaco & Covaneiro, 2012, p. 86, piece 85). The latter has a green glazed outer surface, representing paradisiacal vegetation and the Prophet's Garments, thus symbolizing the plant world and the notion of Paradise; it is also associated with ideas of fertility and wealth.

Amulets with the representation of the *khamsa* have also been identified in other places of Islamic chronology. Two bone objects stand out, one from Mértola (Goméz Martínez, 2011, p. 49) and the other from Moura (Macias, 1993, p. 137, fig. 19). Both these authors emphasize the protection of the wearer from the evil.

Invocations

The daily life of the people who inhabited al-Andalus in Islamic times was dominated by insecurity and uncertainty. In order to ensure protection from the forces of evil, the unknown and the occult, the use of rituals, gestures or amulets was a common practice. Among the signs used, the sacred word, revealed by God to the prophet Muhammad, stands out in particular. In fact, the Arabic script itself has a strong symbolic, spiritual and prophylactic value (Goméz Martínez, 2011, p. 40).

Regarding the recording of inscriptions on ceramics, we observe that the textual content is brief, consisting of only one or two words, which are repeated continuously on the ceramic vessel, usually on the most visible part of the piece.

The expressions were recorded on ceramics, mostly stamped, belonging to large storage containers (carvings) from Convento da Graça and Arrabalde da Bela Fria (Cavaco and Covaneiro, 2008), BNU and Palácio da Galeria (Tomás, 2002), among others, dating from between the XIIth and XIIIth centuries.



Figura 10. Fragment of storage container with the expression - Al-mulk. Calçada de Santa Maria. © Susana Gonçalves

The most frequent declarations are: *Baraka* (blessing), which communicates supplication for divine blessing for the food it contains and for its users; *al-Mulk* (the power [of God]), which aims to remind the believer of humility before divine power, expressing supplication for divine protection (Figure 10) and *al-Yumn* (happiness, well-being, peace).

Conclusions

The reconstruction and interpretation of the past is an attractive task, but it is made very difficult by the absence of written data on the gestures and rites inherent to material culture. The absence of "pieces of the puzzle" on the one hand, and the tendency to interpret the past with modern eyes, on the other, make it difficult to approach the "truth".

Among the "missing pieces" we highlight the material (who is the bearer of the amulet) and the immaterial (who he believes in). On the other hand, the rites, myths, beliefs and superstitions associated with the amulet are not always (re)constructible and, if in some symbols, phrases, signs the meaning is immediately perceptible, others are dubious. As an example, the Valencian ceramics of the fifteenth century, especially the classic gothic *loza dorada*, in which the monogram IHS (*Iesus Humanitas Salvator*) written in Islamizing characters, allows the reading of "*al-Mulk*" (the power), simply by inverting the inscription, in an evident "marketing" strategy, which encouraged an increased the number of possible buyers (Coll, 2009, p. 86).



Figure 11. What the find looks like at the time of discovery Horta de S. Paulo. © Fernando Santos

Finally, we refer to an unusual find identified during the archaeological intervention carried out in Horta de S. Paulo. When surveying the threshold stone of a house, a common ceramic pot was identified, apparently without any element, chronologically labeled between the XVIth and XVIIth centuries (Figure 11).

The location of this deposition raises questions about the nature and ritual of it. On the one hand, we assume that this was carried out by the owners of the house, assuming a magical-religious function of protecting the

home (considering that the door marks the separation between the public space, shared and open to all, and the inner space, a place of comfort and intimacy where we obtain shelter and protection from the dangers that may come from the outside world). On the other hand, we cannot exclude that it is a witchcraft ritual, such as those mentioned in the *Malleus Maleficarum* (The Hammer of the Witches). In fact, in the work of Heinrich Kramer and James Sprenger, dated 1486 and which became an indispensable manual for the Inquisition in the fight against witchcraft, there are several references to finds under the threshold associated with witchcraft.

The context of this piece's provenance is undoubtedly interesting. Although we cannot consider it an amulet in the true sense of the word, we cannot fail to mention it, as it speaks to the magical-religious beliefs and practices of a community that inhabited Tavira between the XVIth and XVIIth centuries. In a world full of dangers, the owners of this house seek protection for their home from the forces of evil, the unknown, and the occult.

References

Álvares, F., & Domingues, J. (2010). A presença histórica do urso em Portugal e testemunhos da sua relação com as comunidades rurais. *AÇAFA On Line*, 3, 1-22.

Arruda, A.M. (2021). Astragali and their archaeological contexts in the Iberian Peninsula. Em U. Albarella, C. Detry, S. Gabriel, C. Ginja, A. E. Pires, & J. P. Tereso (Eds), Themes in Old World Zooarchaeology: from the Mediterranean to the Atlantic (pp.87-94). Oxbow Books.

Boavida, C. (2011). Artefactos metálicos do castelo de Castelo Branco (Castelo Branco, Portugal). *AÇAFA On Line*. 4, 1-45.

Antunes, M. T., & Cardoso, J. L. (2005). Testemunhos do terramoto de 1755 - Novos elementos obtidos em escavações na Academia das Ciências de Lisboa (Notícia preliminar). *Olisipo. Boletim do grupo "Amigos de Lisboa"*, 22/23 (II série), 73-82.

Cano López, S. (2008). Los amuletos. *Boletin de la Asociación Provincial de Museos Locales de Córdoba*, 9, 311-319.

Cardoso, G., & Luna, I. (2012). Fragmentos do quotidiano urbano de Torres Vedras, entre os séculos XV e XVII". Em A. Teixeira & J. A. Bettencourt (Coords), *Velhos e novos mundos: Estudos de arqueologia moderna* (vol. 1, pp. 163-192). CHAM.

Cardoso, J. L., & Arruda, A. M. (2016). Faunas domésticas e rituais funerários em Alcácer do Sal (Idade do Ferro). Em R. Vilaça & M. Serra (Eds), Matar a fome, alimentar a alma, criar sociabilidades: Alimentação e comensalidade nas sociedades pré e proto-históricas (pp. 193-217). FLUC-IA.

Catarino, H. (2011). Pedra de anel: ficha de peça n.º 20. Em S. Gómez Martínez (Ed), *Os signos do quotidiano. Gestos, marcas e símbolos no Al-Ândalus: Catálogo da exposição* (p. 52). Campo Arqueológico de Mértola.

Cavaco, S., & Covaneiro, J. (2008). Cerâmicas estampilhadas provenientes de Tavira. *Xelb*, 8 (vol. II), 155-168.

Cavaco, S., & Covaneiro, J. (2012). Fragmento de pia de abluções em corda seca total com representação da *khamsa*: ficha de peça n.º 52. *Tavira Islâmica: Catálogo da exposição* (p. 52). Câmara Municipal de Tavira.

Cavaco, S., & Covaneiro, J. (2012). Fragmento de talha com motivos geométrico, fitomórficos e *khamsa* estampilhados: ficha de peça. n.º 85. *Tavira Islâmica: Catálogo da exposição* (p. 86). Câmara Municipal de Tavira.

Cavallini, M. (2020). Relatos de unos objetos olvidados: una interpretación simbólica de los astrágalos en los contextos funerarios durante la segunda Edad del Hierro. *Arqueología y Territorio*, 17, 63-74.

Chevalier, J., & Gheerbrant, A. (1982). *Dicionário de símbolos*. José Olympio Editores.

Coll Conesa, Jaume (2009) – La Cerámica Valenciana - Apuntes para una síntesis. Ribarroja del Túria. Asociación Valenciana de Cerámica.

Covaneiro, J., & Cavaco, S. (no prelo). Restos faunísticos do Parque de Festas (Tavira): da Idade do Ferro à Época Moderna". *XI Encontro de Arqueologia do Sudoeste Peninsular*, Loulé.

Cruz, M. (2009). *Vita Vitri - O vidro antigo em Portugal*: Catálogo da exposição. Museu Nacional de Arqueologia. Lisboa.

Dias, V., Casimiro, T., & Gonçalves, J. (2017). Os bens terrenos da Igreja da Misericórdia (Almada) - séculos (XVI-XVIII). *Arqueologia em Portugal – 2017: Estado da Questão* (pp. 1675-1689). Associação dos Arqueólogos Portugueses.

Fernandes, I. C., & Santos, M. T. (2008). *Palmela Arqueológica. Espaços, vivências e poderes: Roteiro da exposição*. Município de Palmela

Gilmour, G. H. (1997). The natures and function os astragalus bones from archaeological contexts in the Levant na Eastern Mediterranean. *Oxford Journal of Archaeology*, 16 (2), 167-175.

Gomes, M. V. (2011). Insígnias de peregrinação encontradas em Portugal. C. de Ayala Martínez & I. C. F. Fernandes (Coords), *Cristãos e Muçulmanos na Idade Média Peninsular. Encontros e Desencontros* (p. 281-296). Colibri.

Gomes, M. V., Gomes, R. V., & Gonçalves, J. (2020). Artefactos de azeviche do Convento de Santana de Lisboa. *Revista Arqueologia & História*, 70, 295-311.

Goméz Martínez, Susana (2011). Gestos do quotidiano. Em S. Gómez Martínez (Ed), *Os signos do*

quotidiano. Gestos, marcas e símbolos no Al-Ândalus: Catálogo da exposição (pp. 39-43). Campo Arqueológico de Mértola.

Goméz Martínez, S. (2011). Amuleto em forma de mão: ficha de peça n.º 17. Em S. Gómez Martínez (Ed), *Os signos do quotidiano. Gestos, marcas e símbolos no Al-Ândalus: Catálogo da exposição* (p. 49). Campo Arqueológico de Mértola.

Gómez Peña, A., Bravo Hidalgo, A., & Rodríguez Mellado, J. (2021). Amuletos fálicos romanos de la provincia de Cádiz. *Revista Atlántica-Mediterránea*, 23, 117-145.

Gonçalves, M. J. (2011). Escápula com inscrição árabe: ficha de peça n.º 4. Em S. Gómez Martínez (Ed), *Os signos do quotidiano. Gestos, marcas e símbolos no Al-Ândalus: Catálogo da exposição* (p. 25). Campo Arqueológico de Mértola.

Gonçalves, M. J., Pereira, V., & Pires, A. (2007). Ossos trabalhados de um arrabalde de Silves: aspectos funcionais. *Xelb*, 8 (vol. II), 187-214.

Kramer, H; Sprenger, J. (2004) – O martelo das Feiticeiras. *Maleus Maleficarum*. Rio de Janeiro. Editora Rosa dos Tempos.

Macias, S. (1993). Moura na Baixa Idade Média: elementos para um estudo histórico-arqueológico. *Arqueologia Medieval*, 2, 127-157.

Lopes, C., & Ramalho, M. M. (2002). Figa: ficha de peça n.º 246. *De Scallabis a Santarém: Catálogo da exposição.* (p. 202). Museu Nacional de Arqueologia

Lopes, C., & Ramalho, M. M. (2002). Figa: ficha de peça n.º 247. *De Scallabis a Santarém: Catálogo da exposição.* (p. 202). Museu Nacional de Arqueologia

Mourão, T. (2005-07). As medalhas religiosas de Santa Clara-a-Velha. *Numus,* XXVIII/XXX (2ª série.), 315-35.

Nabais, M., & Soares, R. (2017). Os ossos trabalhados do castro da Azougada (Moura, Portugal). *Arqueologia em Portugal – 2017: Estado da Questão* (pp. 929-941). Associação dos Arqueólogos Portugueses.

Nolen, J. U. S. (1994). *Cerâmicas e vidros de Torre de Ares - Balsa*. Instituto Português de Museus e Secretaria de Estado da Cultura.

Pereira, C. (2018). *As necrópoles romanas do Algarve. Acerca dos espaços de morte no extremo sul da Lusitânia*. Museu Nacional de Arqueologia.

Thomas, P., García Cano, J. M., Albizuri, S., & Nadal, J. (2022). Gaming and divination pieces, markers of ownership, or all three?: Zooarchaeology and the interpretation of knuckle bones found in tombs of the Iberian necropolis of El Poblado (Coimbra del Barranco Ancho, Murcia, Spain). *Anthropozoology*, 57 (6), 157-166.

Teixeira, A., & Gil, L. S. (2012). Cada botão sua casaca. Indumentária recuperada nas escavações arqueológicas da fragata Santo António Detaná, naufragada em Mombaça em 1967. Em A. Teixeira & J. A. Bettencourt (Coords), *Velhos e novos mundos: Estudos de arqueologia moderna* (vol. 2, pp. 671-682). CHAM.

Tomás, R. (2002). *Gramática decorativa da talha almóada de Tavira* [Seminário de História de Arte, licenciatura em História na Universidade Lusíada]. [online]. [16.08.2011]. Disponível em http://www.arkeotavira.com

AMULETS AND PERSONAL ADORNMENT IN THE COLONIA *AUGUSTA EMERITA*. MODELS AND DISSEMINATION IN THE PROVINCE OF LUSITANIA: CONTAINER AMULETS (*BULLAE* AND GLASS CASES), *FASCINA* AND *LUNULAE*

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Summary
This study explores the use of amulets in Roman Lusitania, focusing on their dual function as both protective talismans and items of personal adornment. Centred around the provincial capital *Augusta Emerita* (modern Mérida), the research draws on archaeological findings and typological analyses to highlight a set of amuletic objects that were both aesthetically refined and imbued with symbolic or magical significance.
From its founding in 25 BCE, *Augusta Emerita* became a major political and cultural hub, facilitating the diffusion of Roman customs, religious practices, and symbolic languages. One area where this cultural integration is visible is in personal ornamentation, particularly in the form of amulets crafted from a wide variety of materials, including glass, bronze, gold, and faience. These objects, often worn as pendants or incorporated into necklaces and earrings, exhibit a rich blend of craftsmanship and symbolic content. The article identifies and examines three key types of amulets commonly found in Lusitania: amulet containers (*bullae* and glass capsules, phallic amulets (*fascina*), and *lunulae*.
The article concludes that these amulets served both religious and decorative purposes. Their technical sophistication, symbolic richness, and archaeological distribution reflect how magical-religious beliefs were integrated into everyday life in Roman Lusitania. Moreover, their presence in funerary contexts emphasizes their role in the rites of passage, especially among women and children. Ultimately, the study underscores the cultural permeability of the province and the nuanced ways Roman identity was constructed through personal adornment.

Keywords: Roman amulets, Roman jewelry, Augusta Emerita, Lusitania, Roman women.

Introduction [1]

The ancient colonia *Augusta Emerita*, present-day Mérida (Spain), is located at the western edge of the Roman Empire, in the southwestern part of the Iberian Peninsula. It was founded around 25 BCE by veteran soldiers of the *V Alaudae* and *X Gemina* legions, discharged by Emperor Augustus after the pacification of Hispania. By 16–15 BCE, it had become the capital of a newly created Iberian province by Augustus: the province of Lusitania. The city's foundation *ex novo* was executed under a detailed urban planning programme, including infrastructure and public spaces, designed in the likeness of a small version of Rome. Public programmes demonstrated the Imperial power's ideological message and were placed in the most significant spaces such as the municipal and provincial forums, as well as on the stage of the grand theatre, where deified gods and emperors conveyed messages of power.
Our field of research has focused on the study of jewelry and female personal adornment in *Augusta Emerita* (Barrero Martín, 2022). This work has made it possible to present an important collection of identity objects used by Roman women, which largely replicate models found throughout the Empire while also revealing some local particularities.
This paper focuses on presenting the variety of amulets used as personal adornment in *Augusta Emerita*, the provincial capital, and its role as a commercial centre and trendsetter within the province over which it presided.
The direct contact of the amulet with the wearer is essential for it to fulfill its protective function. Therefore, it was common for amulets to be used as personal

[1] Study registered in the National R&D Research Project: Augusta Emérita: Urban, Architectural and Decorative Model in Lusitania- I (PID2020-114954GB-100).

adornment, simultaneously serving both decorative and protective purposes. This dual function was often enhanced by the use of exotic or luxurious materials, which were believed to amplify the amulet's properties while also contributing to the creation of true masterpieces of Roman jewelry, as we shall see below.

The material from which amulets were made is fundamental to the object itself, as in many cases the power or beneficial, protective, or favourable properties attributed to the amulet reside in the material. Thus, metals, gemstones, and semi-precious stones used in the crafting of these pieces are bearers of these magical properties. Rings with intaglios and cameos, engraved or inlaid gems, and selected iconographic motifs may be considered amulets in their own right. The same applies to necklace beads made from materials to which protective qualities were attributed—for example, necklaces with jet beads. However, such pieces will not be the focus of this paper. Instead, we will concentrate on specific types of amulets that, due to their technique and aesthetic refinement, also served as items of personal adornment.



Figure 1: 1.1 Funerary stele of Quintus Articuleius, MNAR; 1.2-1.6 gold, bronze and silver *bullae* from Mérida; 1.7 necklace with glass beads and gold *bulla* from Mérida; 1.8 necklace with six bullae, photo from http://raiz.museusemonumentos.pt/; 1.9 jet necklace and *bulla* from Torre de Ares – Balsa, photo from http://raiz.museusemonumentos.pt/. Images from Archive MNAR, except where indicated.

Container Amulets[2]

Bullae

Among container-type amulets, *bullae* are the most common in the Roman world. These protective amulets were typically worn by children until reaching adulthood. They have a long tradition in the Mediterranean, reaching Rome under Etruscan influence. From the Latin *bulla*, meaning "bubble," they are containers designed to hold protective substances and were worn around the neck. A notable example is the funerary stele of Quintus Articuleius in the collection of the Mérida Museum, which shows a young boy who died at the age of five holding a bird. To his right appears the god Attis, who would accompany him to the afterlife. The child is depicted wearing a toga and a large bulla hanging from his neck (Figure 1.1).

Latin sources repeatedly and explicitly reference the *bulla* and *toga praetexta* as symbols of freeborn boys who had not yet reached adulthood: *Bulla aurea insigne erat puerorum praetextatorum, quae dependebat eis a pectore, ut significaretur eam aetatem alterius regendam consilio … vel quia partem corporis bulla contingat, id est pectus, in quo naturale manet consilium* (Fest. *ap. Paul.* 2.36: 'The golden *bulla* was the distinguishing mark of boys wearing the *praetexta*, which hung from their chest to indicate that their age required guidance … or because the bulla touched that part of the body—the chest—where natural judgment resides').

Other authors reinforce this notion (Pseudo-Acro. Hor. *Sat.* 1.5.65; Pers. 5.30–31; Schol. *ad Pers.* 5.3; Macrob. *Sat.* 1.6.9; Plaut. *Rud.* 1171; Isid. *Etym.* 19.31.11). Upon reaching puberty and full citizenship, boys offered their *bullae* to the household gods, the Lares and Penates, while girls, upon marriage, dedicated their dolls (*pupae*) to the goddess Venus (Pseudo-Acro. Hor. *Sat.* 1.5.65).

However, some scholars have challenged this traditional interpretation, proposing that the *toga praetexta* may also have been worn by young freeborn women as a mark of distinction and status (Gabelmann, 1985; Sebesta, 1994, 46–48). In addition, thorough analyses of certain burial contexts have identified *bullae* worn by young women, such as in finds from Dacia (Hamat, 2010). In studies from the province of Pannonia, the *bulla* is interpreted as a symbol that transitioned from denoting social status and age to becoming a protective amulet or even a mere decorative item worn by both boys and girls—and also by adult women (Migotti, 2007, 215).

In the case of specimens from the province of Lusitania, which will be analyzed below, clear evidence indicates that *bullae* were worn by women, as they were found in necklaces intended solely for female use. This raises the question of how their use evolved among women, as

[2] Abbreviations used in museum collections: MNAR = National Museum of Roman Art of Mérida; MAN = National Archaeological Museum of Lisbon; MAMM = Ammaia Museum; BRA = Archaeology Museum D. Diogo de Sousa of Braga.

they lost their role as indicators of gender, age, and social status—and whether they ultimately became decorative clichés.

Bullae enjoyed wide popularity across the Empire, including Lusitania. Their manufacture must have been quite varied, likely including modest examples made from leather or textile, which have not survived archaeologically but served the same protective purpose. At the other end of the spectrum, the *bulla aurea* not only served as a protective object but also as a symbol of social status. For the purposes of this study, we focus on those pieces that can be considered both protective amulets and personal adornments due to their materials and refined craftsmanship.

The most common form is the globular *bulla,* crafted from hammered sheet metal forming two hemispheres joined together, with a notched edge of one overlapping the other. The same sheet forms the suspension loop. This type is highly characteristic and widely disseminated across the Empire (Ruseva-Slokoska, 1991, Cat. 132; Hamat, 2010, 214–203; Szilagyi, 2005, 9–27; Fácsady, 2009, Cat. 231–233; Bolog and Bounegru, 2012, 225–236).

From this typology, a bronze example is preserved (Inv. MNAR CE06636) (Figure 1.2), as well as a gold specimen (Inv. MNAR DO2015/3/19) (Figure 1.3), both from Mérida (Barrero Martín, 2022, 112 and 116). The bronze piece comes from a funerary area, though details are lacking. The gold example was found in a cremation grave alongside a ring inscribed VTERE FELIX, whose small diameter suggests it belonged to a child (Barrero Martín & Morcillo León, 2025). Another similar gold *bulla* (Inv. MAN Au 587) is housed in the National Museum of Archaeology in Lisbon and comes from the villa of Santa Vitória do Ameixial (Portugal) (Chaves, 1938, 104).

A piece of similar workmanship but unique form is a case from Mérida (Inv. MNAR DO2015/3/32) (Figure 1.4), with five segments that taper at the ends. It has been identified as possibly representing a chrysalis—a symbol of renewal (Barrero Martín, 2022, 116). It was found in a deposit containing 129 objects made from ceramic, glass, bronze, iron, worked bone, mother-of-pearl, and amber (*Brillo de la Apariencia*, 2021, 90–91).

Other *bullae* from Mérida present the globular form, such as a silver example (Inv. MNAR DO2015/4/94) (Figure 1.5), also from a funerary context, and a pendant shaped like a pomegranate (Inv. MNAR DO2015/3/94) (Figure 1.6), also interpreted as a container amulet (Barrero Martín, 2022, 118).

One particularly remarkable item is a gold *bulla* found as part of a necklace (Inv. MNAR DO2013/4/120) (Figure 1.7) composed of glass beads imitating emeralds—a practice common in high Roman jewelry (Barrero Martín, 2021). The necklace belonged to a singular funerary deposit that included adornment and hygiene items, as well as toys (Chamizo de Castro, 2018/2019), among which were three amber rings—rare outside the Italian peninsula (Barrero Martín, 2022, 282).

Also exceptional is the necklace in the collection of the National Museum of Archaeology in Lisbon (Inv. MAN Au 143) (Correia, 2013, 141) (Figure 1.8). Acquired in April 1914 by José Leite Vasconcelos from a goldsmith in Évora, it is a fantastically executed piece. The loop-in-loop chain features pendants suspended from T-shaped ring handles—six now-deformed pieces that likely had a globular shape. The technical quality and preservation are noteworthy. (Correia states it originates from São Manços – Évora).

Other notable examples include *bullae* made from semi-precious stones such as jet (Inv. MAN 14911) (Menéndez Menéndez, 2019, 166) (Figure 1.9) and amber (Inv. MNAR CE07753) (Barrero Martín, 2022, 118), from Torre de Ares – Balsa and Mérida respectively. These pendants combined the protective form of the *bulla* with the perceived virtues of two highly valued ancient materials, which, despite their fossil origin, were considered gems—then as now.

Glass Capsules

Glass capsules with horizontal suspension are a relatively common type across the Roman Empire (Eisen, 1927, 522, fig. 229). Typically made of black glass, they have a barrel shape, are hollow inside, and often have highlighted rims, with one or two horizontal suspension loops applied while hot. They are decorated with colored glass threads also applied hot. These have been associated with *phylakteria*, small cases that held inscribed phrases with protective or talismanic properties (Eisen, 1927, 522, fig. 229). Cosyns' comprehensive study on the production and consumption of black glass in the Roman period, and in particular the section devoted to this type of pendant, reveals a wide distribution ranging from Israel to Portugal, including England, although it appears to show a greater concentration in the western provinces of the Empire, with important production centres such as Aquileia (Cosyns, 2011, 258). Cosyns emphasizes the barrel shape of these pendants, relating them to other types of objects that imitate similar containers (Cosyns, 2011, 289). On the other hand, Spaer, who analyzes the collection of the Israel Museum, proposes that this typology is characteristic of the Roman-Byzantine period—a production that she dates between the IIIrd and Vth centuries CE—and that it would have been centred in the Levant (Spaer, 2011: 102–103).

More recently, they have been linked to Egyptian-origin metal amulet cases that appear in Roman-period Fayum portraits (Giovannini, 2009, 121) (Figure 2.20). Giovannini's study of examples from Trieste and his survey of documented finds in Aquileia, Brescia, Croatia, and Austria suggest their use by children. In this same volume, specimens of tubular capsules originating from *Viminacium* are presented. The authors, Ilija Danković



Figure 2: 2.1-2.5 Glass capsules from *Augusta Emerita*, photo Archive MNAR; 2.6-2.9 glass capsules from villa of Torre de Palma; 2.10-2.12 glass capsules from villa of Torre de Ares; 2.13-2.14 glass capsules from Troia; 2.15-2.16 glass capsules from *Bracara Augusta*; 2.17-2.19 glass capsules from *Ammaia*, photo N. Barrero Martín; 2.20 portrait of a young man with a capsule in his body, from the necropolis of El Fayum, photo J. Paul Getty Museum (Inv. 78.AP.262). Images from http://raiz.museusemonumentos.pt/, except where indicated.

and Bebina Milovanović, associate these capsules with *bullae*, given their small size, which would preclude their use as containers for texts, suggesting instead that they were intended to hold protective substances. Most scholars assign these examples to a late chronology, specifically the IIIrd–IVth centuries CE.

We have proposed a possible local production in *Augusta Emerita*, or alternatively, that the glass workshop of *Bracara Augus*ta (Da Cruz, 2009) supplied the Lusitanian provincial territory, where numerous examples have been located.

The glass capsules from Mérida show great formal uniformity, although their archaeological contexts are unknown (Inv. MNAR CE05969, CE09860, CE23268, CE26683, CE37673) (Alonso & Maldonado, 2018, 413–414; Barrero Martín, 2022, 307) (Figure 2.1-2.5). The same applies to the examples held at the National Museum of Archaeology in Lisbon, coming from the Roman villas of Torre de Palma (Inv. MAN 2000.191.24, 2000.314.317, 2001.5.378, and 2008.133.1) (Figure 2.6-2.9) and Torre d'Ares (Inv. MAN. 999.102.2, 999.102.5 and 999.102.38) (Nolen, 1994, 187; Bernardes & Candeias, 2024, 201) (Figure 2.10-2.12), the archaeological site of Troia (Inv. MNA 983.3.1448 and 983.3.1449) (Figure 2.13-2.14). From the city of *Bracara Augusta* come two more pendants with applied threads (Inv. BRA 1065/96 and 0930/97) (Da Cruz, 2009) (Figure 2.15-2.16). To these should be added three specimens from the Roman city of Ammaia (Inv. Nos. MAMM 210, MAMM 211, and MAMM 212) (Figure 2.17-2.19), also made of black glass but without decorative threads.

Fascina and Comlex Amulets

The phallic cult in Roman times was widespread. According to Zarzalejos Prieto (1988, 302), it was associated with several powers:

> "With the generative power of Nature. As such, it was venerated in the personification of the god Fascinus, a deity whose attributes included protection against the fascinum or 'evil eye,' the germination of dry plants, and the facilitation of childbirth in infertile women" (p. 302).

Moreover, the ithyphallic character of figures such as Priapus—with his oversized phallus—was present in the daily life of Romans, adorning homes, gardens, and various household objects.

The *fascinum* had a dual function: as a prophylactic or apotropaic object against the evil eye or fascination, and as a symbol of the mysterious forces of creation. It was therefore integrated into daily life, protecting entrances to homes or public works, as seen in the carved phallus on one of the arches of the Roman bridge in Mérida.

Phallic pendants also likely functioned as fertility symbols (Puttock, 2002, 96). The *fascinum* was worn by individuals ranging from children to military generals (Plin. *HN*. 28.39), although, as noted by Varro, it seems particularly associated with the most vulnerable: children (Varr. *De Ling*. 7.97).

The phallus appears in combination on more than one occasion with other apotropaic figures, forming double or triple amulets. A frequent combination is that of the phallus and the figa or indecent hand. This figure represents a right hand closed, with the thumb pressed between the index and middle fingers, and it appears to have been associated with the depiction of both the female and male sexual organs engaged in intercourse (Del Hoyo & Vázquez Hoys, 1996: 454–455). This gesture was understood as a sign of rejection towards evil spirits, as can be inferred from the poet Ovid's account: *Signaque dat digitis medio cum pollice iunctis, occurrat tácito ne ieuis umbra tibi* (Ovid, Fasti 5.433: "he makes a sign with his thumb enclosed between his fingers, so that no fleeting shadow may silently approach him"). Moreover, the open hand (*palma manu*) must also have held a protective function against evil. This type



Fig.3.1


Fig.3.2


Fig.3.3


Fig.3.4


Fig.3.5



Fig.3.6



Fig.3.7

Fig. 3: 3.1-3.2 gold charm with two phallic pendants and burial deposit from *Augusta Emerita*; 3.3-3.5 gold phallic pendants from *Ammaia*, photo N. Barrero Martín; earring with phallic pendants from *Augusta Emerita*. Images from Archive MNAR, except where indicated.

developed in the Eastern Mediterranean, with its roots in ancient Mesopotamia, and was later transformed in North Africa into the *Hamsa* or Hand of Fatima, while consistently preserving its apotropaic character.

Bronze *fascina* are very common, in various sizes and formats, and are well represented in the collection of the Mérida Museum (Barrero & Sabio, 2019: 402, Figure 40.7). The larger specimens may have been used in conjunction with *tintinnabula* or as part of cavalry harness decoration, where such protective pendants were frequently employed (Bishop, 1988, 98).

As jewelry items, the phallus appears alone or combined with other apotropaic motifs, used as pendants for necklaces or earrings in gold.

Of particular note is a pair of small gold phalli (approx. 1 cm in length) with identical manufacture (Inv. MNAR DO2012/3/53–DO2012/3/67) (Figure 3.1), which formed part of a set of pendants and charms discovered in the funerary deposit of a woman dated to the Ist century CE (Barrero Martín, 2022, 114–115, 378–379) (Figure 3.2). The pieces are made from gold wire, widened at the centre and tapered into a pointed glans. The testicles are represented as two spheres soldered at the opposite end. A suspension loop is soldered at the center.

Unique is the find from the baths of the Roman city of *Ammaia* (Marvão), where three identical gold pendants with double iconography—phallus and open hand—were discovered (Inv. MAMM 207, MAMM 208 and MAMM 209) (Figure 3.3-3.5). These are crafted in a highly distinctive way: a gold wire, narrower in the centre, ends in a pointed phallus at one end and a hammered, cut flat section resembling a hand at the other. Small spheres representing testicles are placed at the midpoint, above which the suspension loop is soldered.

In Mérida, two earrings feature phallic amulets (Barrero Martín, 2022, 150–151). One earring has a simple phallic pendant (Inv. MNAR DO2015/3/46) (Figure 3.6), made from gold wire with a tapered glans and two soldered spheres representing the testicles. A central suspension loop is also soldered.

Another hoop earring has a more complex pendant with dual iconography: phallus and open hand (Inv. DO2015/3/17) (Figure 3.7), identical in craftsmanship to the Ammaia examples. The consistent technical solution and presence of four identically made phalluses suggest the possibility of a provincial workshop, likely located in *Augusta Emerita*, supplying the broader Lusitanian territory.

Lunulae

Lunulae—crescent-shaped pendants—are a type of amulet directly associated with women. Their symbolic connection to femininity is emphasized by Isidore of Seville: *Lunula sunt ornamenta mulierum* (Isid. *Etym.* 19.31.17: "*Lunulae* are ornaments for women").

The crescent moon symbol has a long tradition as an astral sign, particularly linked to growth and, more specifically, to the development of young girls. It can be traced back to the earliest Mediterranean civilizations—Mesopotamia and Chaldea—where it symbolized goddesses such as Isis and Hathor in Egypt and Artemis and Io in Greece (Alarcón Román, 2015, 44). In ancient Greece, women and girls were placed under the protection of the goddess Artemis/Selene, who governed the lunar cycle, equated with the female menstrual cycle and essential to health.

In Roman times, the symbolic link between women and the moon appears to have weakened. The crescent motif acquired a more general apotropaic function, used in military equipment and even animal gear. In cavalry (Bishop, 1988, 98), these crescent pendants formed part of elaborate harnesses, combining decorative and protective functions. These lunulae typically have two holes or loops for attachment by leather straps. One such bronze example (Inv. No. CE29272), housed in the Mérida Museum with no known provenance, was likely not intended as personal adornment

However, crescent pendants on fine chains are identified as amulets for girls and women (Riha, 1990: 73). According to Plautus, they were given as birth-day gifts (*dies natales*) (Plaut. *Epid.* 639). *Lunulae* pendants appear



Fig. 4: 4.1 bronze *lunula* from *Augusta Emerita*; 4.2 portrait of a young woman with a *lúnula* pendant from El Fayum, photo Metropolitan Museum (inv. 09.181.7); 4.3 small *lúnula* pendant and chain from *Augusta Emerita*; 4.4 gold chain wtih *lúnula* pendants and rings. Images from Archive MNAR, except where indicated.

throughout the Empire, especially in Vesuvian jewelry (D'Ambrosio & De Carolis, 1997, 190–191, 195). They also frequently appear in Egyptian-Roman dowry documents, suggesting they may have belonged to women since childhood (Ogden, 1990, 213). In the Fayum portraits, women are vividly depicted wearing these pendants (Borg, 1996, Taf. 17.1) (Figure 4.2).

In Lusitania, the use of such amulets seems restricted—according to current knowledge—to the capital, *Augusta Emerita,* although some exceptional examples are known. One complete necklace consists of a simple chain formed by flat figure-eight links, featuring at its center a lunula made from bent gold wire forming the crescent (Inv. DO2015/3/12) (Barrero Martín, 2022, 84–85) (Figure 4.3). It has a soldered loop and four tiny granules at the ends. Noteworthy for its small size (just 2.5 cm), the piece shows a simple yet elegant technical solution, including granulation—a decorative technique characteristic of such amulets (Pirzio Biroli, 1992, 235, 243).

More complex and visually striking is a necklace with a double loop-in-loop chain, heart-shaped clasp, and *lunula* pendant decorated with pairs of small spheres at the tips, centre, and both sides of the suspension loop, placed over a fluted sheet (Inv. DO2015/3/39) (Barrero Martín, 2022, 85–86) (Figure 4.4). This necklace was deposited in a rich funerary assemblage containing other jewelry, including a pair of earrings and two rings.

Another example is a silver *lunula* pendant with a rhomboid cross-section and thickened ends (Inv. CCMM 8137/36/1) (Figure 5.1), featuring a finely fluted sheet loop soldered to the main body. It comes from a funerary deposit dated to the I[st] century CE (Vargas Calderón & Plasencia Sánchez, 2017, 439–440). The assemblage also included a lamp with a rounded nozzle decorated with volutes and a thin-walled bowl (Mayet Type XXII) (Figure 5.2).

A very different context surrounds the final piece under consideration—a *lunula* made from an extremely thin bronze sheet (Inv. CCMM 2510/236/6) (Figure 5.3). The suspension loop is soldered to the back and folded forward. At the top is a cross-shaped decorative finial with two circles. The back is hollow, and the crescent tips are solid. At the centre of the inner semicircle is a hole for another suspended element. This piece formed part of a complex pendant assemblage deposited alongside the cremated remains of a child, dated to the 1st century CE (Heras Mora, 2017: 180, Figure 7). The assemblage included faience beads, a perforated coin from the reign of Caligula, and the *lunula* itself—likely all suspended from an iron ring, forming a protective charm for the child (Barrero Martín, 2023) (Figure 5.4).

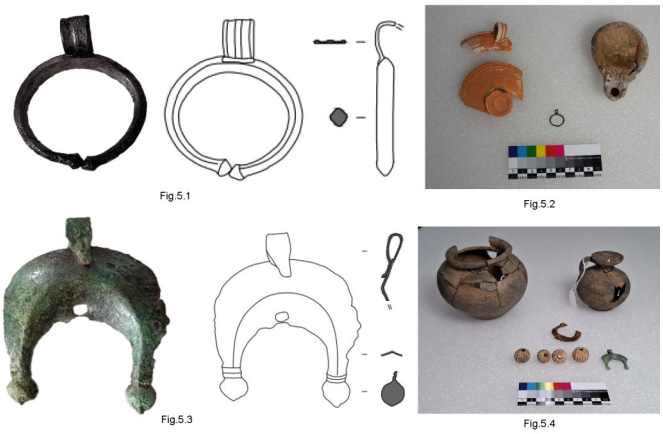

Fig. 5: 5.1 y 5.2 bronze *lunula* and burial deposit from *Augusta Emerita*. Photos N. Barrero Martín & drawing C. Mena.

Conclusions

The study demonstrates that amulets in Roman Lusitania served not only as protective or magical items (apotropaic) but also as refined pieces of personal adornment. Their aesthetic and technical sophistication indicates that beauty and symbolism were not mutually exclusive in Roman jewelry.

The recurring presence of certain amulet types—particularly bullae, glass capsules and *fascina*—in Lusitania, especially in *Augusta Emerita*, suggests the existence of regional production centers or workshops. These may have catered to local demand while

maintaining stylistic coherence with broader Roman trends.

Many amulets were found in funerary assemblages, especially those of women and children. Their presence suggests a protective function in the afterlife and reflects the societal values and beliefs surrounding death, childhood, and gender roles in the Roman world.

The adoption and adaptation of these amulets in Lusitania reflect the cultural permeability of the province and the blending of Roman religious-symbolic systems with local practices. They offer insight into how provincial communities engaged with Roman identity through personal objects.

The distribution and iconography of these amulets emphasize their use among vulnerable groups—particularly women and children—suggesting that protection, identity, and status were gendered and age-specific in the Roman context.

References

Alarcón Román, C. (2015). El creciente lunar en el Mediterráneo. *II Congreso Europeo de Joyería: Vestir las joyas. Modas y modelos* (pp.44-56). Ministerio de Educación, Cultura y Deporte/ Museo del Traje.

Alonso, J. y Maldonado, S. (2018). Joyas de vidrio de época romana procedentes de Augusta Emerita y su territorio. *VIII Encontro de Arqueologia do Sudoeste Peninsular/Encuentro de Arqueología del Suroeste Peninsular* (407-432). Serpa.

Barrero Martín, N. (2023): Perforated Coins and Coin Jewellery in Augusta Emerita (Mérida, Spain). Il *valore dei gesti e degli oggetti Monete e altri elementi in contesti funerari* (pp. 93 – 103). All'Insegna del Giglio. doi 10.36153/ monoarc148.07.

Barrero Martín, N. (2022). *Ornamenta Muliebria. El adorno personal femenino en Mérida durante la Antigüedad*. Colección Monografías Emeritenses nº 13. Fundación de Estudios Romanos.

Barrero Martín, N. (2021). "¿Vidrio por piedra? Imitación de piedras en el adorno personal. Algunos ejemplos de Colonia Augusta Emerita". Em M. Cisneros (ed.) *Imitaciones de piedras preciosas y ornamentales en época romana: color, simbolismo y lujo* (pp. 189 – 200). Anejos de Archivo Español de Arqueología XCIII. Consejo Superior de Investigaciones Científicas.

Barrero Martín, N. & Morcillo León, A. (2025). Rings with the inscription VTERE FELIX from the colony of Augusta Emerita (Mérida, España). Em W. Spickermann & R. Wedenig (eds.) *Instrumenta inscripta IX. Schmuck, Dekoration und Etikettierung im Spektrum der Kleininschriften* (Beiträge zum internationalen Kolloquium, Graz, 23.–25. Mai 2022), pp. 35-44, Universität Graz.

Bernardes, J.& P., Candeias, C. (-Coord.-) (2024). Catálogo da exposição *Balsa - Cidade Romana*.

Bishop, M. C. (1988). Cavalry equipment of the Roman army in the Ist century AD. Em J. C. Coulston (ed.), *Military equipment and the identity of Roman soldiers. Proceedings of the 4th Roman Military Equipment Conference*. BAR Internacional Series 394, pp. 67-195, Archeopress.

Borg, B. (1996). *Mumienporträts: Chronologie und kultureller Kontext*. Von Zabern.

Del Hoyo, J., & Vázquez Hoys, A. Mª (1996). Clasificación funcional y formal de amuletos fálicos en Hispania. *Espacio, Tiempo y Forma*. Serie 2. Historia Antigua, 9, 441-466.

Chamizo de Castro, J. J. (2018/2019). El área funeraria de San Agustín, un espacio jerarquizado en un suburbio noreste de Augusta Emerita. *Anas*, 31-32, 129-153.

Chaves, L. (1938). A «villa» de Santa Vitória do Ameixial. Escavações em 1915-1916. *O Arqueólogo Português*, vol. XXX. Imprensa Nacional.

Correia, V. H., Parreira, R. & Silva, A. C. F. (2013). *Ourivesaria Arcaica em Portugal: o brilho do poder*. Clube do Colecionador dos Correios.

Cosyns, P. (2011). The production, distribution and consumption of black glass in the Roman Empire during the Ist to Vth century AD. An archaeological, archaeometric and historical approach. [PhD Thesis, Vrije Universiteit Brussel, Brussels]

D'Ambrosio, A. & De Carolis, E. (1997). *I Monili dall'Area Vesuviana*. L'Erma di Bretschneider.

Da Cruz, M. (2009). Black Glass Jewellery from Bracara Augusta. *AIHV Annales du 17e Congrès*, pp. 7-13.

Dasen, V. (2015).Probaskania: Amulets and Magic in Antiquity. Em J. Bremmer & D. Boschung (eds.), *The Materiality of Magic* (pp. 177-203). DOI: 10.30965/9783846757253_010

Eisen, G, (1927). *Glass: its origin, history, chronology, technic and classification to the sixteenth century*. W. E. Rudge. Getty Research Institute.

Facsády, A. R. (2009). *Jewellery in Aquincum*. Az Aquincumi Múzeum Gyűjteménye 1. Aquincumi Múzeum.

Gabelmann, H. (1985). Römische Kinder in Toga Praetexta, *Jahrbuch des Desutschen Archäologischen Instituts* 100, 497-541.

Giovannini, A. (2009). Alcuni tipi di ornamenti per il collo dalle collezioni del Civico Museo di Storia ed Arte di Trieste. *Quaderni Friulani di Archeologia*, XIX, 119-125.

Migotti, B. (2007). Rimska bula u Panoniji. *VAMZ,* 3.s., XL, 187–219.

Hamat, A. C. (2010). Despre pandantivul rotund cu casetă din Dacia Romană. Bulla. *Drobeta*, 20, 214 -230.

Heras Mora, F. J. (2017). El área suburbana del Circo Romano. *Mérida. Excavaciones Arqueológicas. 2006-2008*, 12, 171-185.

Menéndez, A. (2019). Aproximación histórica y tipológica al uso del azabache, y otros materiales afines, durante la época romana y la Tardoantigüedad en la península ibérica. *NAILOS Estudios Interdisciplinares de Arqueología*, 6, 123-203.

Nolen, J. U. S. (1994). *Cerâmicas e Vidros de Torre de Ares - Balsa*. Instituto Português de Museus.

Ogden, J. (1990). *Gold jewellery in Ptolemaic, Roman and Byzantine Egypt* [PhD Thesis, Durham University, http://etheses.dur.ac.uk/1457/]

Pirzio Biroli Stefanelli, L. (1992). *L'oro dei romani. Gioielli di età imperiale*. L'Erma di Bretschneider.

Puttock, S. (2002). *Ritual significance of Personalm Ornament in Roman Britain*. BAR British Series 327. Archaeopress.

Riha, E. (1990). *Der römische Schmuck aus Augst und Kaiseraugst*. Forschungen in Augst 10. Augst: Römermuseum.

Ruseva-Slokoska, L. (1991). *Roman Jewellery. A Collection of the National Archaeological Museum Sofia*. Publishing House of the Bulgarian Academy of Sciences.

Sebesta, J. L. (1994). Symbolism in the Costume of the Roman Woman. Em J. L. Sebesta & L. Bonfante (Eds.), *The World of Roman Costume* (pp. 46–53). University of Wisconsin Press.

Spaer, M. (2001). *Ancient glass in the Israel Museum: beads and other small objects*. The Israel Museum.

Szilagyi, M. (2005). Late Roman bullae and amulet capsules in Pannonia. *Annual of Medieval Studies at CEU*, 11, 9-27.

Vargas, J. & Plasencia M.D. Datos para el estudio del área funeraria de los Bodegones. Mérida. Excavaciones Arqueológicas. 2006-2008, 12, 437 -450.

Zarzalejos Prieto, M. *et al.* (1988). Amuletos fálicos romanos inéditos de las provincias de Madrid y Toledo, *CuPAUAM*, 15, 301-318.

A MOTHER-OF-PEARL AMULET DISCOVERED IN A CHILD'S GRAVE FROM *CALLATIS* (MANGALIA, ROMANIA)

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Summary
This article discusses an older find from the *Callatis* necropolis, first published in 1980, and consisting of a pendant worked from mother-of-pearl, depicting a male figure, half-bust, seen from the front. From a typological point of view, it belongs to a small group of finds made in the Roman Empire, with the closest analogues coming from Tomis and Viminacium. Taking in to the account all the analogues, we believe that the pendant is an amulet of particular apotropaic value, intended to be used primarily for children and in rare cases for adults. Chronologically, the amulet dates to the first half of the 4th century AD., during the Constantinian dynasty.

Keywords: Amulet, pendant, mother-of-pearl, *Callatis*, IVth century AD.

This article brings into question an older find from a child's grave discovered in the necropolis of *Callatis*; to this day, it is an archaeological rarity in terms of its material association and typology. Although it was perceived from the moment of discovery to be a special object because of the material from which it was carved, time has shown that, also from a typological point of view, the amulet recovered from this particular grave, is an uncommon Roman archaeological find from the Roman Empire. Taking advantage of the information from a recent, similar find on the subject, from a typological point of view, in conjunction with the possibility of analysing technological and functional micro -traces through microscopic investigation, we decided to revisit discussion on this lesser-known artefact and analyse the functionality and period of use for this particular object.



Figure 1. Location of *Callatis* and other Greek colonies in Romania, after Google Maps 12.07.2025.

1. Context of the discovery

The artefact under study is a pendant, and more particularly an amulet that comes from the inventory of an inhumation tomb excavated at 71A Oituz Street in the archaeological site of *Callatis*' (today the city of Mangalia on the Romanian Black Sea shore) late necropolis.
An analysis of the entire tomb was published in 1980 by Ct. Preda as part of his effort to summarize the extensive excavation campaigns at *Callatis*, between 1963 and 1975 (Preda, 1980, p. 99, pl. 29).
M171 is a burial belonging to a child, and comprises a simple pit covered with three limestone slabs; it has the following dimensions: length 1 m, width 0.30 m, and depth 1.40 m. The skeleton was partially preserved and oriented W-E, lying in the dorsal decubitus position, with the right hand bent towards the chin. The funerary inventory of the grave is composed of cylindrical coral beads, a mother-of-pearl *philacterium* and the amulet which is discussed below.

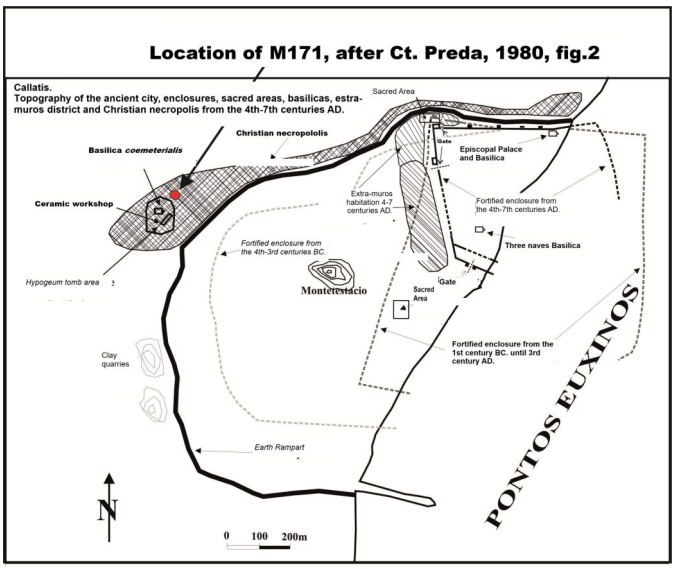

Figure 2. Location of the finds on the map of ancient *Callatis*, after N. Alexandru, 12.07.2025.

The tomb was located in the Christian necropolis of the city, very near to a *basilica coemeterialis*, and in an area known for *hypogeum* type tombs (Figure 2) (Ionescu et al., 2002-2003, p. 283; Diaconu, 1964, pp. 712-723; Preda, 1980, p. 12). Note that, together with Orgamé, Istros and Tomis, *Callatis* (Figure 1) was founded by Greek colonists in the VIIth – VIth centuries BC, and, under the Roman rule of the newly founded province of Moesia Inferior, the city was a prosperous Black Sea port with very rich and well-connected inhabitants. At the end of the IIIrd century AD, the Empire reorganize the territory of this province, under the name of Scythia Minor. Here, our child was born, lived and died in the first half of the IVth century AD (about the general history of the city see Alexandru, 2024; Buzoianu, 2001).

2. Description. Typological and Chronological Framing.

The pendant is part of a child's necklace consisting of 12 coral beads and a *philacterium* worked from mother-of-pearl. At the time of its discovery, it was treated as a slightly unusual item of jewellery, unique in Romania and with a simple functionality related to children's ornaments. Today, thanks to recent publications on the subject, and because of the appearance of another piece of this kind, we treat it differently; it is an archaeological rarity related to the apotropaic nature of the specific typology and material.

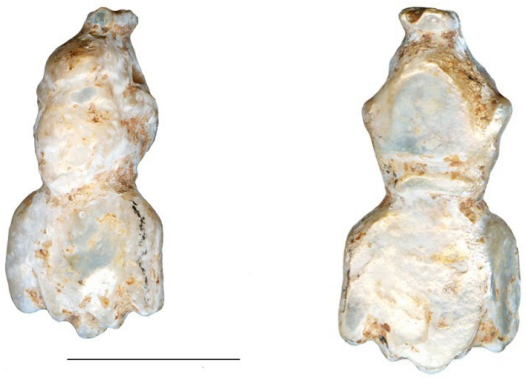

Figure 3 a-b. Photographs of the artefact, after A. Hamat, 12.07.2025.

The piece was carved from mother-of-pearl (Figure 3 a-b), in the form of a half- bust of a male figure, seen from the front. The head has grotesque, pointed features, with almond-shaped, exophthalmic eyes, raised and arched eyebrows, elongated towards the temples, as well as a long, pointed chin, outlined lips and a horned nose. The image is completed by a pair of large, satyr-like ears, and a fairly high and triangular forehead line. The hair is tied in a knot (*cirrus*) on the crown of the head. The neck is short and thick, and the bust has a massive body with a marked line of pectoral muscles, sketched shoulders and detailed upper arm muscles. The lower part of the amulet ends in a line carved irregularly.

The dimensions of the pendant are: length – 18.6 mm, head width – 7.2 mm, body width – 9.3 mm, average head thickness – 6.4 mm; average body thickness – 3.6 mm, perforation diameter – 0.8 mm.

An interesting aspect, that may attest to the reuse of the artefact, is the way in which the suspension hole was drilled for hanging. Initially the hole was drilled in the mouton, in the frontal position and, probably due to use, the top part gave way and broke off. Therefore, a new hole was drilled, positioned on one side and at the base of the hair knot, but it did not penetrate all the way through the entire thickness of the head. The back of the amulet was flattened to stabilize the object whilst it was hanging.

As mentioned above, from the typological point of view, the pendant is an example of a narrowly defined category of object, which embraces finds made from many types of construction material, ranging from pottery and bone, to gold, jet and amber; finds of this type are spread throughout the entire Roman Empire. However, because of the material used in this instance, the pendant discovered at *Callatis* is so far unique.

From the ancient jewellery point of view, mother-of-pearl is a semi-precious organic gem which has been used since ancient times to decorate and enhance the beauty and value of objects and buildings. Highly prized in Roman society, it is considered in the modern mindset regarding the ancient luxury items, as a substitute for pearls, which were also highly prized in Roman society. Regarding the importance of pearl in the Roman world, Pliny indicates that good quality pearls are luxury items and display objects (Plinius, 2000-2005, *Naturalis Historia* 37, 16 and 9, 117 with 37, 6, but also Hamat, 2016, p. 809).

Returning to mother-of-pearl, note that this material was used to inlay objects or to decorate buildings and less often to create objects in their own right. Also, depending on where it was to be used, it could be traded unworked, together with the craftsmen who worked it (Reys et al., 2016, p. 210). Traders specializing in pearl were known traditionally as *margaritarii*, although the

term may have been applied to anyone connected to this kind of gem, including exporters, jewellers, and pearl-setters to pearl fishermen and guards who protected the precious stones (Reys et al., 2016, p. 186). To protect their interests, the *margaritarii* joined together in guilds or associations across the Empire. Eighteen inscriptions found in Rome mention the profession of *margaritarius*. The same craft is also attested in Hispania (Bustamante-Alvarez et al., 2020, p. 10). Most of these historical markers have been discovered around the Via Sacra in the Roman Forum, the centre of day-to-day life in ancient Rome. Such inscriptions suggest that a select group of *margaritarii* operated from one of Rome's best known and busiest streets, which served as the city's commerce nucleus for luxury trade (Morales, 2023, p. 151), and one of the best known in the entire Empire.

We know from the literature, but also from archaeological remains, that pearls are not the only marine products that were considered luxurious. In the Roman Empire there are many other uses of shells, most of them related to the display of power and status to the whole spectrum of the society. They could simply be collected, or used in funerary contexts, as decorative items, and perhaps as a very rare and sought-after food. We must not forget red coral or *Corallium rubrum*, which was equally precious to Roman *luxus* and used to create very expensive jewellery.

In addition to this, there was another exclusive trade practiced in Antiquity, namely that in the material of mother-of-pearl and objects crafted from it. However, up to the present day, very few workshops dedicated to processing mother-of-pearl are known; most of them are located in places from the Near East such as Israel, Jordan, Syria (Karageorghis & Michaelides, 1995, p. 219; Láng, 2006, p. 154) or in Alexandria (Morand, 2020, p. 15). Although sometimes considered to be cheaper than pearls, all the information that we have shows that mother-of-pearl may have been equally as expensive (Reys et al., 2016, p. 189). Initial evidence is provided by the chain of production and execution, with a circuit that started from the harvesting areas (Persian Gulf, Red Sea, Indian Ocean), to the workshop and primary market around the eastern Mediterranean and Egypt, and from where it coud reach all the Roman provinces (Reys et al., 2016, p. 190; Morand, 2020, p. 14). The most commonly used shell for processing is the black-lip pearl oyster, *Pinctada margaritifera* (Linnaeus, 1758) used by the Romans as a source of both mother-of-pearl and pearls (Morand, 2020, p. 14). As for the chronology of its processing in Roman times, we can only assume that the exploitation of mother-of-pearl followed the fashions of Egyptian and Hellenistic times (Morand, 2020). Note that several *villae* from Hispania (Las Pizarrass, Carranque, La Torrecilla, El Saucedo, Noheda and Roceipón), have wall inlays, dating from the IVth century AD (Reys et al., 2016, p. 210). We also know that the working of mother-of-pearl continued in the Alexandrian workshops until late Vth - VIth centuries AD (Morand, 2020, p. 15).

Unfortunately, due to the rarity of its use, mother-of-pearl remains almost unknown in studies of the Roman era (Reys et al., 2016, p. 189). Objects worked in such material are rare - a few decorative buttons for footwear were found at Augusta Emerita (Bustamante-Alvarez et al., 2020, p. 16, Figure 6) and beads with small amulets appeared at Alexandria in Egypt (Morand, 2020, p. 15, Figure 18).

From the typological point of view, at the time of its discovery, the pendant forming the subject of this present study was the only example found in the area of the provinces of Dacia and the two Moesiae, and until three years ago, the closest analogues were pieces discovered in the necropolis of Viminacium (Milovanović & Danković, 2020). Recent research concerning the painted tomb from Tomis (Constanta) revealed the discovery of a child's necklace with the same type of amulet, but worked from jet (kind information which was share to us by our colleague Constantin Băjenaru, the scientist responsible for the research in the necropolis of Tomis, personal communication).

In addition to the piece found in *Callatis*, similar pendants have been found at Viminacium in the necropolis from Rit and Pecine (Milovanović & Danković, 2020, pp. 129-131, no. cat. 1, 4 and 5.), in Colchester (Parker & McKie, 2018; Crummy & Davis, 2020), Cologne, Astorga,



Figure 4.a) Necklace reconstruction, after N. Alexandru, 12.07.2025; 4. b)-c) Crepundia necklace with analogue amulets from Viminacium, after Milovanović, Danković, 2020, figure 5-6, photography courtesy to Ilija Danković

Vienna and Palmyra (Hagen, 1937, taf. 29; Garcia Marcos & Vidal Encinas,1995, pp. 115, 277, no. 4; Casal García & Bóveda Fernández, 2001, p. 132; Raat, 2013, p. 150) and Tomis. In total about 20-30 pieces are known to date.

It should also not be forgotten that coral was an extremely expensive material in the Roman world and was believed to give protection against a whole range of ailments, from colds, to bile problems, fever, blood sputum, ulcers, eye problems, and also to act as a guardian against evil (Plinius, 2000-2005, *Naturalis Historia* 32, 2, 23). A rarity for the Roman Empire, it was harvested mainly from the Red Sea, with processing workshops in the Mediterranean area and, like pearls and mother-of-pearl, it was the subject of luxury trade (Bustamante-Alvarez et al., 2020, p. 5).

In terms of dating, things are indeed very nuanced in this case. In four of the cases from Viminacium we have pendants deposited in the tombs of children or very young individuals dating from the mid-IIIrd to early IVth century AD, and whose remains record the existence of metabolic stress episodes. (Milovanović& Danković, 2020, p. 139). Another piece found at Ptuj was dated with a coin from Gallienus, found in the same grave (Istenič, 2000, pp. 256-257, t. 177). The pendant from Astorga no longer retains its context, but it has been associated with Ist - IInd century material (Casal García & Bóveda Fernández, 2001, p. 129; Menéndez Menéndez, 2019, pp. 167-168, figure 12.A). The Kunsthistorischen Museum in Vienna has similar pieces from Syria dated between the IIIrd and IVth centuries (Casal García & Bóveda Fernández, 2001, p. 129).

Amulets discovered at Palmyra can be dated to the IInd century AD (Raat, 2013, pp. 61-62), while two amulets from Colchester are dated to the first half of the IInd century AD (Crummy & Davis, 2020). The earliest known amulets come from the Chersones, one of which is dated to between the second half of the Ist and first half of the IInd century AD (Menéndez Menéndez, 2019, pp. 171–172), and the remaining three are from the IVth century (Menéndez Menéndez, 2019, p. 170). Therefore, on the basis of these finds , the amulet type can be broadly dated to between the second half of the Ist century and probably the first half of the Ith century, with the amulet from *Callatis* being framed in the early part of the IVth century AD.This typological framing of the tomb is possible because of the broader time context of the area (see Ionescu et al., 2002-2003, p. 283) in which, in turn, relates to the Constantinian dynasty; most of the coins recovered from here date to the reign of Constantine the Great or Constantius II.

3. Non-invasive analysis. Methodology

Initially, the specimen was examined macroscopically in order to identify its general characteristics (morphology, dimensions, state of fragmentation and preservation) leading, in turn, to identification of the technological procedures and their sequence within the technological scheme of raw material transformation. This was followed by examination with a Keyence VHX-600 digital microscope (magnifications ranging from 30x to 200x), images being taken with the help of a camera built into the microscope. Further examination using an Olympus BX53M metallographic microscope (magnifications ranging from 200x to 500x), equipped with an EOS 1200D Canon camera revealed the ways in which in-use wear marks developed, including their location and size, together with changes in the initial volume of the piece, and the direction and morphology of functional marks, cluster or fractures.

4. General conclusions

Firstly, note that objects crafted from mother-of-pearl, or from pearls large enough to be carved (because we know that pearls were carved in Roman times), are very rare and very difficult to analyse; identifying the precise shell species of origin is extremely problematical. The current state of research suggests that the amulet was carved in mother-of-pearl, but we cannot exclude the possibility of it being in pearl, because both materials possess have layers of nacre.

Morphology: The piece made of shell is a pendant representing an anthropomorphic character, displaying all facial details (eyes, mouth, nose, ears), probably with a headdress on top, together with the arms and torso.

Technical transformation sequence: In the case of this artefact (Figure 5a-c), we could not identify the procedures for obtaining the blank, due to the technological interventions in the shaping operation. At the level of the head, the eyes, nose and mouth were drawn through incisions (Figure 5d). The hairstyle was also separated from the face by an incised groove. To highlight the ears, the area was separated from the remainder of the head by a longitudinal incision (Figure 1e), after which the outline of the ears was made by scraping (Figure 5f). Moreover, the circular shape of the head was also achieved by scraping (Figure 5g). The piece appears to have had a perforated fastening system above the head which at the same time suggested a hairstyle (Figure 5h). The clamping system broke and a new perforation was made at the top of the head. The procedure was that of rotation applied bilaterally (Figure 5i).

The head was demarcated from the body by inscribing a deep groove around the entire outline by sawing (Figure 6b). On the back, the neck is marked by a double groove (Figure 6c-d). The arms were detached from the body by alternating bifacial sawing (Figure 6e). Then, the contour of the shoulders and the morphology of the torso were achieved by longitudinal scraping (Figure 6f-h).

The proximal side has an irregular shape. Most likely, the proximal end fractured and reshaping was attempted by removing the fractured area. In this regard, two oblique incisions intersecting in an 'x' were made (Figure 6h). These are deep, V-shaped, and the repeated passages of

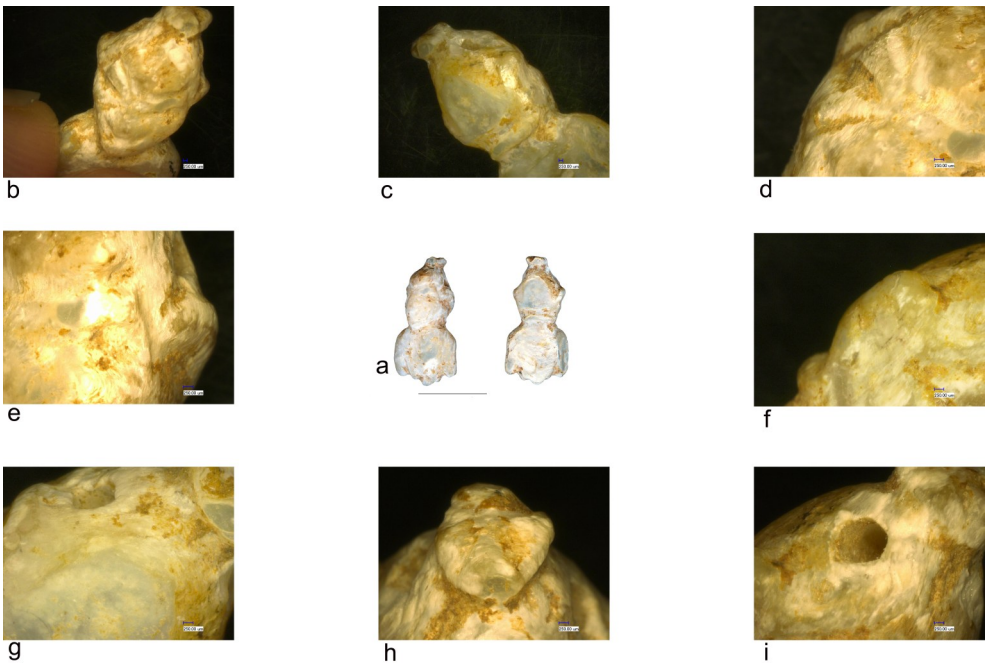

Figure 5. Figure 1. a. anthropomorphic figurine; b-c. details of the piece; d-e. incision details; f-g. scraping details; h. hairstyle detail; i. perforation detail.

the piece within the incision groove are evident (Figure 6i).

Use-wear analysis: its surface was affected by exfoliation processes specific to this type of raw material which limited identification of the data related specifically to the development of in-use wear. However, there are small areas where the exfoliation process is not so marked and where we were able to make observations concerning in-use wear marks. On the upper side, such areas are present at the distal end, where the initial attachment system existed (Figure 7b), at the ears (Figure 7c) and at the torso (Figure 7d). The use-wear produced radical changes to the original volume, with alternation between flattened surfaces and depressions and the presence of short, oblique and dense striations.

On the lower side, the use-wear is much more extensive, this being the dressing friction side. Thus, at the level of nacre, opaque areas alternate with those characterized by a strong polish (Figure 7e). Under the metallographic microscope, raw material losses are evident, in layers, as a result of this friction process (Figure 7f-g). The depression areas are significant and no functional striations appear.

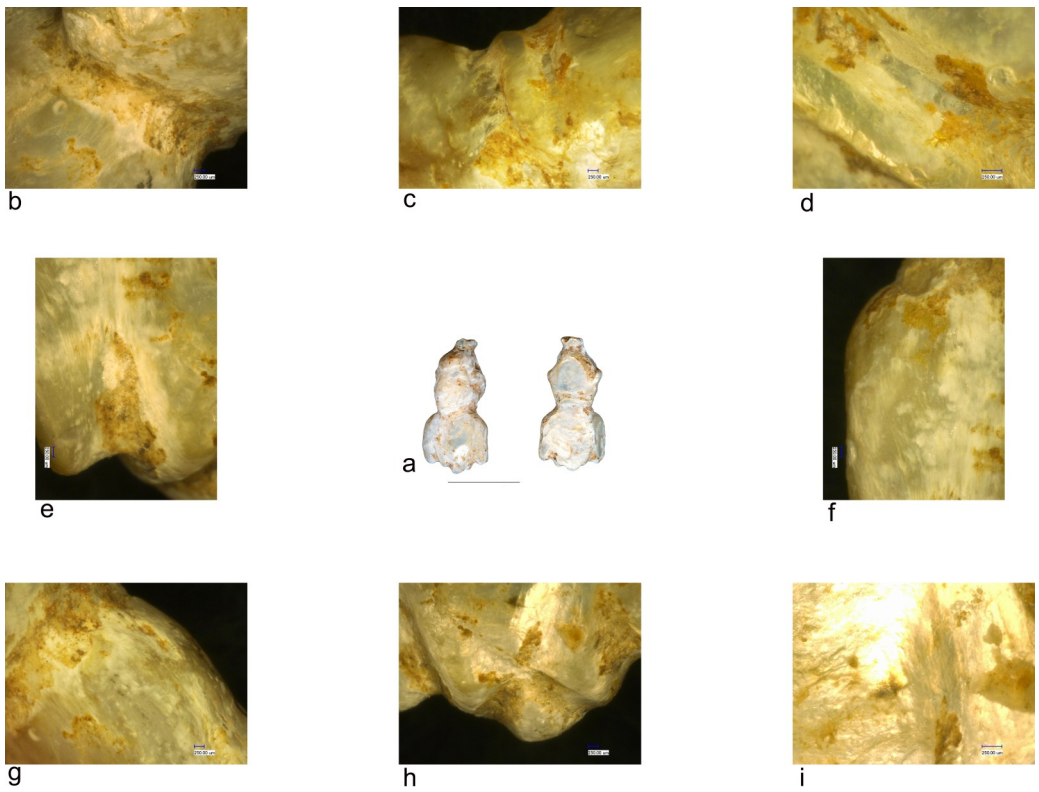

Figure 6. Figure 2. a. anthropomorphic figurine; b. neck detail; c-d. grooving marks: e, h-i. sawing marks; f-g. scraping marks.

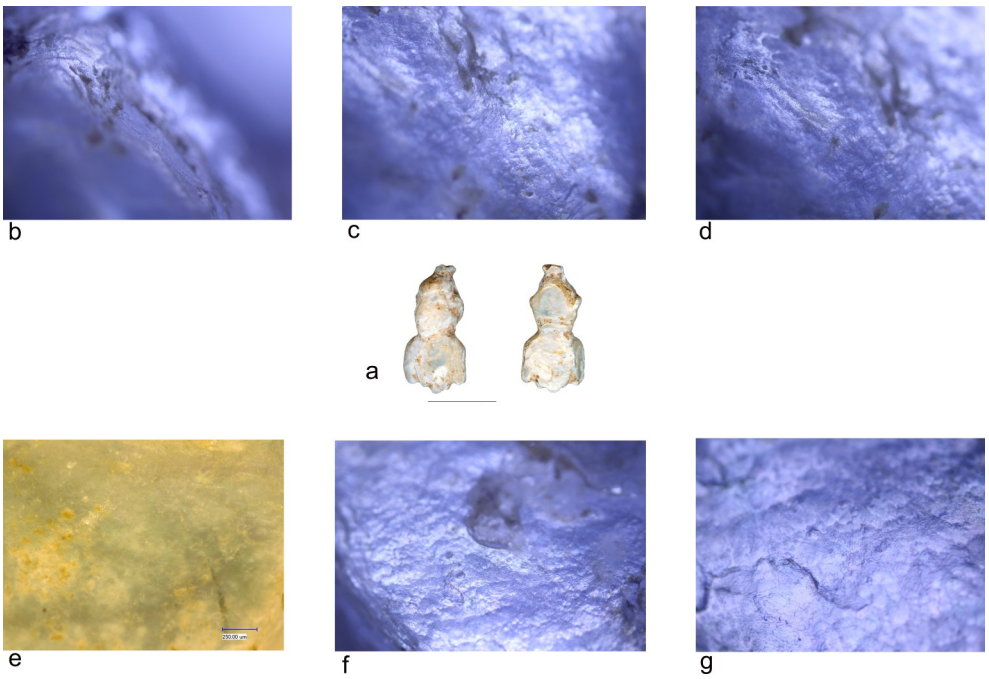

Figure 7. Figure 3. a. anthropomorphic figurine; b-d. use-wear areas on the upper side; e-g. use-wear areas on the lower side.

The spatial distribution of this type of pendant shows spreading along the line of the Danube, followed by discoveries in the East, but also from Hispania and Britannia; this has now been supplemented by records of the amulets from *Callatis* and Tomis. The authors of the study focussing on the Viminacium finds, suggest that the spatial distribution may be evidence for the movements of a small group of people, connected by the same beliefs or ethnic substrate (Milovanović& Danković, 2020, p. 136).; we agree with these assumptions.

In terms of the functionality of these pendants, they are clearly amulets, placed on a simplified form of *crepundia* necklace (Vojvoda et al., 2021, pp. 164-165, 167; Spasić-Đurić 2021, pp. 201-237) (Figure4a), together with other recognized types of amulets, decorating the chest of children and young individuals with the purpose of guarding them from harm. The model for this kind of representation, could have been mimes - actors who wore grotesque masks and whose roles were to cast out and ward off evil spirits during the *Lupercalia* feast (Milovanović & Danković, 2020, p. 133). M. Henig identified this character as being a representative combination of an African individual (an Ethiopian pygmy), with the ears of a satyr and a phallic symbol; therefore he concludes that it was a fertility amulet (Henig, 1984, p. 245), an assumption that is no longer accepted today. The amulets from Astorga and Aquileia have been identified as displaying traits characteristic of indigenous peoples from central and southern Africa, while an amulet from Vienna has been identified as representing an oriental gladiator. Dragana Spasić-Đurić interpreted one of the Viminacium specimens as a grotesque portrait of an athlete, apotropaic and magical in its nature. According to her, it was supposed to protect the child against evil forces, securing ideal conditions of health and strength at the *palestra* (Milovanović & Danković, 2020, p. 137). An additional identification has been made with a supernatural being, represented with deformed features, specifically made to provoke laughter in the viewer, as it is known that laughter drives away evil spirits (Milovanović & Danković, 2020, p. 137). Most certainly, the origin of this type of amulet can be traced back to the East (Milovanović & Danković, 2020, p. 139), together with the provenance of the material. In regard to the relations between *Callatis* and the Eastern world, appropriate useful information is lacking for the period from the foundation of the settlement by the Greeks until the late Roman era (see Buzoianu, 2001; Barnea, 1972, pp. 255, 257; Radu, 2016, pp. 136-140).

Taking into account the discussion above, we can say that identifying a specific character is difficult because the possibilities are many and, unfortunately, there is a lack of relevant supporting ancient literature. However, bearing in mind recent publications, we tend to believe that this is a prophylactic amulet, representing an unnamed supernatural being.

If we also take in to consideration the materials from which it was made, the whole necklace had a particular apotropaic and symbolic value, as it was intended to protect the child from harm. Given the fact that all the materials are symbolically derived from the sea, together with their rarity, it is likely that only a fairly wealthy and well-connected family could have afforded the price of this necklace. The fact that these are precious items is indicated by the discovery of a second intended suspension hole, and especially the wear and tear sustained by wearing the pieces for long periods of time, which indicates that here we are dealing with a *crepundia* worn by the little one, during the course of his lifetime. This practice is attested by items displaying this particular form from Viminacium and Tomis (Figure4 b-c).

The narrow dating of these objects to the early IVth century AD., tells us about an interesting period - that of the early Christians; it helps to illuminate aspects of the broader spread of Christianity through the population. Note that the tomb has a Christian orientation, W-E, and is located in the general area of one of the oldest basilicas, leading to the assumption that it belongs to this period. What is interesting and worth mentioning here, is the syncretism between paganism and Christianity that existed in this period even involving the revival of popular practices related to personal magic or more often, to medical magic.

As far as the methods employed during the production of the pendant is concerned, we tend to agree with the authors of the study carried out for Viminacium (Milovanović & Danković, 2020, p. 137). We believe that the amulets were made in a specialized workshop, because the engraving of such fine materials had to be done by a skilled professional. Also, we know from the data gathered so far that they were not mass-produced but likely were items of bespoke manufacture, even though cases exist where certain types of mother-of-pearl objects were created in series (see Barrero Martín, 2022, pp. 251-252) according to certain specifications. We tend to believe that the choice of material was not an ordinary one (Milovanović & Danković, 2020, p. 138). The type, the material and the investment of the object with magical power are part of some magical procedure and therefore, which when executed correctly is reflected in the effectiveness of the amulet (Sánchez Natalías, 2018, p. 15).

The exact functionality of this type of amulet is still a matter of debate, but the Viminacium graves held bones of three individuals who were affected by metabolic stress or periodontitis (Milovanović & Danković, 2020, p. 139). Jet and amber amulets have also been linked to protection against toothaches (Plinius 2000-2005, *Naturalis Historia* 36, 34 and 27, 12). Altogether, this points to a prophylactic function for the amulet and the necklace itself. Unfortunately, being an ancient find, anthropological analysis of the child buried at *Callatis* is no longer possible, but the dimensions of the grave pit indicate that it housed a young child, probably in the first years of life.

Unfortunately, despite all the precautions taken by his parents, the little one died at an early age, taking with him to his grave a special coral necklace, complete with mother-of-pearl amulets, most likely a much-loved object in his life.

References

Alexandru, N. (2024). *Callatis, oraş grecesc în ţinutul geţilor*. Mega Publishing House.

Barrero Martín, N. (2022). *Ornamenta muliebria. El adorno personal femenino en Mérida durante la Antigüedad*. Monografias Emeritenses. Fundación de Estudios Romanos.

Barnea, I. (1972). Relaţiile provinciei Scythia Minor cu Asia Mică, Siria şi Egiptul, *Pontica*, *5*, 251-265.

Bustamante-Alvarez, M., Bernal-Casasola, D.& Castellano-Hernandez, M. A., (2020). Pearl and Mother of Pearl in *Hispania*: Exploitation and Trade of Marine Luxury Products, *Journal of Maritime Archaeology, 16*, *1*, 1-30.

Buzoianu, L. (2001). *Civilizaţia greacă în zona vest-pontică şi impactul ei asupra lumii autohtone (sec. VII-IV a.Chr.)*. Ovidius University Press.

Casal García, R. & Bóveda Fernández, J., 2001. O acibeche dende o megalitismo á antugüidade clásica no noroeste da península Ibérica, *Gallaecia; Revista de Arqueoloxía* e *Antigüidade, 20*, 125-132.

Crummy, N. & Davis, J. C. G. (2020). A Black Mineral Amulet from Colchester's North Cemetery, *Britannia*, 51, 1-12.

Garcia Marcos V. & Vidal Encinas J. M. (1995). Asturica Augusta y Castra Legionis VII Geminae en la Asturia Cismontana, In *Astures: Pueblos y Cultura en la Frontera del Imperio Romano*, Gran Enciclopedia Asturiana, (pp. 113–128). Asociación Astures Gijon.

Hagen, W. (1937). Keiserzeitliche Gagatarbeiten aus dem rheinischen Germanien, *Bonner Jahrbücher*, *142*, 77-144.

Hamat, A. C. (2016). Tăcere, vorbesc romanii! Bijuteriile în literatura latină din primul secol al Imperiului, *Arheovest*, *4*, *2*, 807-821.

Henig, M. (1984). Amber Amulets, *Britannia*, *15*, 244-246.

Ionescu, M, Alexandru, N. & Constantin, R. (2002-2003). Mormintele de tip hypogeu din necropola callatiană de epocă romano-bizantină, *Pontica*, 35-36, 281-291.

Istenič, J. (2000). *Poetovio, Zahodna grobišča II, Grobne celote iz Deželnega muzeja joanneuma v Gradcu*, Narodni muzej Slovenije.

Láng, O. (2006). Decorated Pinctada margaritifera: new data to the presence of eastern people in the civil town of Aquincum?, *Communicationes archaeologicae Hungariae*, *2006*, 149-161.

Linnaeus, C. (1758). *Systema Naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Impensis Direct. Laurentii Salvii. Holmiae, Stockholm,* https://biodiversitylibrary.org/page/726886.

Karageorghis, V. & Michaelides, D. (1995). Cyprus and the Persian Gulf in the Hellenistic and Roman Periods: The Case of the *Pinctada margaritifera*. In Karageorghis V.& Michaelides O. (Eds.), *Cyprus and the Sea. Proceedings of the International Symposium* (Nicosia, 25-26 September, 1993).

Nicosia 1995, (pp. 210-226), University of Cyprus.

Menéndez Menéndez, A. (2019). Aproximación histórica y tipológica al uso del azabache, y otros materiales afines, durante la época romana y la Tardoantigüedad en la península ibérica, *Nailos, Estudios Interdisciplinares de Arquelogía*, *6*, 123-203.

Milovanović, B. & Danković, I. (2020). Anthropomorphic amulets from Viminacium, *Starinar*, *70*, 127-143.

Morales, A. S. (2023). Pearls, beryls, and priestesses in the Latin West: pearls and gems as symbols of female power and devotion, as well as impiety and irreverence, In Pujol, L. P.& Pérez Gonzáles, J. (Eds.), *De luxuria propagata romana aetate. Roman luxury in its many forms*, (pp. 137-136). Archaeopress.

Morand, N. (2020). The exploitation of molluscs and other invertebrates in Alexandria (Egypt) from the Hellenistic period to Late Antiquity: food, usage, and trade, *Anthropozoologica*, *55*, *1*, 1-20.

Parker, A. & Mckie, S. (2018), *Material Approaches to Roman Magic: Occult Objects and Supernatural Substances*, TRAC Themes in Roman Archaeology, *2*, (pp. 69–84).Oxbow Books.

Plinius, G. Secundus (2000-2005). *Naturalis Historia*, vol. I-VI, Polirom.

Raat, A. (2013). Diadems: A Girl's Best Friend? Jewellery Finds and Sculptural Representations of Jewellery from Rome and Palmyra in the First Two Centuries AD., Master thesis, Leiden University, Faculty of Archaeology, Leiden University Student Repository, https://studenttheses.universiteitleiden.nl/handle/1887/20510.

Radu, L. (2016), Un opaiţ cu marca Hermes Cyzicianul descoperit la *Callatis*. Note despre legăturile oraşului Cyzicus şi vestul Pontului, *Peuce*, *14*, 129-144.

Reys, O. V., Pérez González, C., Bragado Álvarez, M. A., Araujo Armero, R.& de Andrés Cobeta, J. (2016). Arquitectura romana tardoantigua revestimiento de nácar en uillae hispanas del siglo IV d. C, *Oppidum. Cuadernos de Investigación*, *12*, 185-218.

Sánchez Natalías, C. (2018). The Medium Matters: Materiality and Metaphor in Some Latin Curse Tablets, In: Parker, A.& McKie S. (Eds.), *Material Approaches to Roman Magic: Occult Objects and Supernatural Substances*, (pp. 9–16). Oxbow Books.

Spasić-Đurić, D. (2021). Крепундије (crepundiae) из Виминацијума, *Зборник Народног музеја у Београду*, *25*, *1*, 201238.

Vojvoda, M., Golubović, S. & Mikić, I. (2021). *Mors immatura: novac i apotropejsko-proflaktički elementi u pogrebnim ritualima južna nekropola Viminacijuma*. Посебна издања 72. Београд: Археолошки институт.

AZABACHE (JET), AMBER AND OTHER ORGANIC MATERIALS. THEIR USE AS AMULETS IN HISPANIA.

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Summary
This paper offers a general overview of the use of amulets made from organic raw materials in the Iberian Peninsula, with particular focus on jet, along with references to a number of amber and bone specimens, during the Roman Period and Late Antiquity. The discussion necessarily focuses on jet, as the archaeological evidence for amber and other organic substances in *Hispania* is extremely limited.
We also explore the close relationship between jet and other substances, with which it is often combined or confused in terms of identification—such as bone, horn, or ivory. The study analyses the selection of raw materials and examines what classical Greek and Roman sources do—or do not—tell us.
We briefly introduce the artisans, potential workshops, and commercial networks associated with these materials in *Hispania*, as well as the fundamental role played by their bearers. Typological parallels are also considered, along with the use of other everyday objects made from organic materials for magical or protective purposes. Finally, we reflect on typological precedents and influences in both earlier and later chronological contexts.

Keywords: jet, Roman, Late Antiquity, amulet, jewellery

Introduction

Azabache (jet)[1] is a raw material, of organic origin which has been used in jewellery since prehistoric times. It is closely related to other organic materials, such as amber, both in its geological origins and in the way it is used. It is common for these materials to be combined as part of the same ornamental element, generating rich chromatic contrasts, also with gold. This is why, symbolically, this contrast of black and yellow have been linked with light, fire, sun or life and death or darkness.
The use of these raw materials always has ornamental, magical-medicinal, religious or superstitious connotations. This protective benefit is increased with rituals or shapes that acquire a defensive power.
Typologically, the examples of jet or amber, which we can specifically call amulets, found so far from Roman contexts in *Hispania*, are scarce in number. This is the case, for instance, for some anthropomorphic, zoomorphic and *bulla* specimens. However, certain types of beads clearly functioned as amulets. This is also true for other items of jewellery, such as armlets or rings, some bearing zoomorphic engravings or inscriptions, which may have a magical-protective character. A certain magical ritual can also be detected in the way in which these organic jewels are worn, both in life and in death. In this sense, the definition of these objects as amulets does not rely solely on their typological form, but also on contextual evidence, associated motifs or inscriptions, and the ways in which they were worn and deposited. As discussed below, sensory aspects such as colour, sound, or even smell may also have played a role in their perceived protective power. Regrettably, the contextual information for most of the objects is either scarce or entirely lacking, which restricts the scope for interpreting their specific uses or associated rituals
Until recently, information regarding jet in the Iberian Peninsula during the Roman period and Late Antiquity was very scarce and largely confined to objects documented in the northern half of the Peninsula. However, thanks to recent studies, its presence has now been attested at sites distributed across the entire Iberian Peninsula (Menéndez Menéndez, 2023). We expect that advances in the study of the other organic raw materials discussed here will provide a basis for further progress in the investigation of their use as amulets.

Jet and associated organic materials in the Iberian Peninsula

The term used in the Iberian Peninsula is of Arabic origin and has been in use since the Middle Ages. It originates

[1] From this point onwards, the term jet will be used throughout this paper.

from the concept of the colour black and refers to substances with similar appearance, which can be carved.[2]

Archaeologically, this material, like many others, is identified based on macroscopic criteria and classified as jet, lignite, fossilised wood or coal. It is also commonly confused with a range of other raw materials, such as burnt ivory, bone or wood, shale, black glass, or other black stones in general.

Until now, this material has been selected according to subjective criteria: sensory qualities, colour, personal preferences, the artisan's knowledge, geographical location, economic interests or availability. Each of these factors falls outside current scientific standards. It is therefore essential to proceed with caution when attempting to project contemporary scientific classifications onto past concepts.

In the case of *Hispania*, the misinformation circulating within the contemporary artisanal world—laden with myths, clichés, and fabricated claims driven by commercial interests—has proven a major hindrance. The absence of in-depth studies has led many researchers and museums to rely on these inaccurate claims, further contributing to their dissemination.

Up until the late XXth century, jet from the Iberian Peninsula was considered a "variety of lignite" with diverse characteristics, originating from both the Cretaceous and Jurassic periods. These definitions stem primarily from geological studies of Asturian jet, particularly that from the well-known old mining area of Oles[3] (Villaviciosa, Asturias) (Campón *et al.,* 1978).

In the 1990s, however, other studies asserted that jet constitutes "a variety distinct from lignite" (Suárez Ruiz *et al.,* 2006, 17). Based on these works, it was concluded that in Spain the term "azabache" should only be applied to material of Jurassic origin, specifically that from the Oles village (Villaviciosa) —the origin of the single sample analysed in this paper— [4]. The authors follow the parameters established by Stach *et al.* (1982) for British jet. Nonetheless, the classification of Spanish jet as a variety of coal within the lignite group is still in use today (Fernández Suárez *et al.*, 2012, p. 100; Díaz de Neira Sánchez *et al.* 2019, p. 95 and 113, among others). This variety of classification adds further confusion to the research.

Most archaeological data on jet relies on macroscopic analysis, while scientific studies remain limited and inconclusive regarding provenance. Classifications based on subjective criteria intended to distinguish "lignite" from "jet"—such as colour or preservation, often equated with "quality"—have proven unreliable and only added to the confusion. It is now evident that neither colour nor preservation are reliable indicators of nature or origin. For this reason, the term "archaeological jet" is preferred. Geological characterisation of jet/lignite/coal becomes meaningful only when a direct analytical link can be established between an object and a specific source deposit, a challenge that remains difficult even today.

In the Iberian Peninsula, the use of carbonaceous materials or amber for personal adornment dates back to the Upper Palaeolithic. Recent analytical studies confirm the local origin of certain amber beads and semi-processed fragments from the Cueva de Las Caldas (Oviedo, Asturias), where jet beads and unfinished pieces were also recovered (Peñalver el al., 2017). Given the nearby Cretaceous deposits of both materials, we suggest that the jet may likewise be of the same local origin. Despite Asturias' long-standing reputation as an historical centre of jet production, the presence of ornaments made from this material in the region's archaeological sites remains anecdotal.

The areas in which such objects are most abundantly found tend to be those near Cretaceous deposits, where amber and jet—respectively fossilised resin and wood from related arboreal sources—appear together, or regions with active lignite mining. This is the case in parts of Asturias, the Basque-Cantabrian basin, Burgos, the Levantine region, and Catalonia, among others. When we examine analytical studies of prehistoric amber, they clearly demonstrate the connection between archaeological sites and deposits of local amber and lignite across the Iberian Peninsula (see map in Murillo Barroso *et al.*, 2018, p. 37, Figure 1).

The precise sources of archaeological jet in *Hispania* have yet to be clearly determined analytically. Nevertheless, it seems evident that, alongside well-known deposits later exploited through mining, both Cretaceous and Jurassic sources were available—such as those in Asturias, Teruel, various areas of Portugal and southern France. There were numerous other locations where similar materials, suitable for carving, were also exploited. For the Iberian context in Roman Times and Late Antiquity, we may theorise a local origin for most of the studied objects, with some exceptions. The first preliminary results of the analytical studies employing X-ray fluorescence (XRF) also point in this direction. Analyses have been carried out by us on multiple samples of coal, lignite, and jet from various sites in the Iberian Peninsula and England, analysed alongside and compared with archaeological specimens. Although it is not yet possible to determine with certainty the precise origin of the geological deposits, the results indicate a clear

[2] In the Iberian Peninsula, various linguistic variants are used, such as acibeche, acebache, azabaya, atzabeja or azeviche. In other countries, alongside local names—often related to colour for example gischer or gešir in Georgia —terms derived from the classical greek origin gagates are commonly used, such as jet in the United Kingdom, jais in France, gagat in Germany or giaietto in Italy.

[3] Oles is one of the numerous villages of Asturias where jet mining took place until about a century ago, in addition to several other locations situated on both Jurassic and Cretaceous terrains.

[4] This is a claim that cannot be supported historically or archaeologically. For this reason, it is important to clearly distinguish between "geological jet" and "archaeological jet".

relationship with local raw materials and diverge from the parameters established for English jet (Menéndez Menéndez, 2023, p. 775–776). Particularly in the earliest phases of jet use in *Hispania*, from the IInd to the IVth centuries AD, some specimens appear to have a foreign provenance. Furthermore, investigations conducted in other production centres not only confirm the existence of various supply sources, but also propose the Iberian Peninsula as a potential point of origin for some artefacts or raw material (see Allason-Jones, 1996; Allason-Jones & Jones, 2001; Gelencsér *et al.*, 2015).

It is also important to acknowledge that these organic materials often share very similar compositions and properties, regardless of geographical origin, making it extremely difficult to determine provenance with certainty.

Traditionally, a limited number of locations have been cited as centres of jet production in the Roman period. In reality, the number of deposits potentially exploited for craft purposes is much larger: the United Kingdom, France, Spain, Portugal, Germany, Austria, Bulgaria, Poland, Crimea, Georgia, Russia, and Turkey are just some of the most frequently mentioned. These regions contain diverse deposits of related materials, from various geological periods, used for similar purposes.

Jet is, broadly speaking, a variety of coal, originating from fossilised wood. Within a single geological deposit, materials of differing quality or characteristics may be found, many of which have been used in jewellery. These are substances that feel warm to the touch, are sensitive to fluctuations in humidity and temperature, and whose stability cannot, in any case, be guaranteed by geographic origin alone.

As with jet, comprehensive studies on amber from the Roman period and Late Antiquity in *Hispania* remain limited. Analyses of artefacts dated between the Ist and IIIrd centuries AD have yielded differing results. The group analysed from Emerita Augusta suggests a Baltic origin (Bustamante *et al.*, 2021). However, a specimen from first-century AD Roman occupation levels at *Numantia* has been identified as siegburgite, or class III amber, a material documented in Germany (Dietz *et al.*, 2014).

Small amber beads frequently accompany the jet beads characteristic of phase II of jet in *Hispania* (IVth to VIth centuries AD). As with jet, a local provenance—similar to that proposed for prehistoric contexts—cannot be ruled out. Nor can the possibility of a foreign origin, or that some of these beads may have been made from other types of resin, be entirely excluded. This remains to be confirmed. Recent studies have examined Late Antique amber beads from several archaeological sites. While they have confirmed the presence of Baltic amber in these chronological contexts, research in this area is still in its early stages (Vallejo-Casas *et al.*, 2024). To date, the amber occurring alongside jet jewellery in *Hispania* has not been the object of analytical study. What is of particular interest in this case is the close relationship between both substances, from both a geological and an archaeological perspective. The combination of jet and amber at certain sites—where connections with the Black Sea region or the large-scale migrations of the Vth century AD have been suggested—could indicate a potential link (Menéndez Menéndez, 2023; 2025).

Other organic materials were also used, such as bone and ivory, and possibly others that have not survived due to their perishable nature, such as leather or wood. Some of these appear to have been intentionally dyed black to emulate other substances, such as jet, not necessarily with the intention to deceive. This has also been documented at other production centres, such as Britannia, something already reflected in multiple studies by the specialist Allason-Jones (2002, p. 369–370).

Jet, gagates, succinum

Traditionally, both archaeological and geological historiography have identified jet with gagates. This term is cited in classical sources with exclusively magical or medicinal uses. Most authors follow Pliny The Elder, who describes it as a stone found on the southern coast of present-day Turkey (Plin. *HN*. XXXVI.34). However, the material actually found in that context is more likely to be asphalt or obsidian, among other black substances. The Turkish jet deposits currently in use, are located far from this region, in the northeast of the country - Erzurum, near the border with Georgia—another historically important centre for the production of these materials. Pliny, drawing on Greek sources, noted that the smoke of gagates repelled snakes, relieved uterine suffocations, revealed epilepsy and virginity, and, when mixed with other substances, cured dental problems and scrofula; he also mentioned its use in divination (*Plin. HN* XXXVI.34). Galen added that it was effective for treating bleeding wounds (*Gal. De Simp*. 12.203–204), a property recalled by traditional Asturian artisans, who used jet powder to heal cuts sustained during carving. The sixth-century Vienna Dioscorides includes the *Paraphrasis of Eutecnius*—a prose reworking of Nicander's *Theriaka*, dating to the IIIrd century AD—which recommends burning stag's horn and *gagates* together with herbs such as ferns, rosemary, or cumin to repel snakes, and also contains an illustration of a *gagates* stone (Mottana, 2002, p. 103).

Pliny and other authors describe various materials, noting in detail their use in jewellery or as amulets. For instance, amber is described as both a luxury ornament and an amulet, particularly for children[5]: "*pro pueris amuletum*". He also refers extensively to its medicinal properties for the throat, stomach, and urinary system (Plin. *HN*. XXXVII.12). Black coral is noted for its use against

[5] As with jet, amber is a word of arabic origin. The terms used in the classical world for these substances were elektron in Greek and succinum or glaesum (Palavestra & Krstić, 2006, p. 20).

enchantments; and obsidian, which Pliny locates in India, Italy and *Hispania*, is described as dark in colour and used in jewellery (Plin. HN. XXXVI. 54 and 67).

At present, the only explicit reference to the use of jet in a piece of jewellery and as an amulet comes from Claudius Aelianus (IInd–IIIrd century AD). He mentions an iron ring containing a gagates stone engraved with the figure of a lizard, linked to a magical ritual for restoring vision. The use of jet or other types of coal in ophthalmological treatments is cited in multiple sources: "*simulque ferreum annulum, cui inesset gagates lapis, in quo lacertus scalptus erat*" ("likewise an iron ring containing a jet stone on which a lizard was engraved") (Clau. NA V. XLVII)[6]. An iron ring with similar characteristics was found at the castro of Viladonga (Lugo, Spain), decorated with the figure of a lion (Durán Fuentes & Fernández Vázquez, 1999; Pérez Rozas & González Rodríguez, 2022, p. 19). However, in black-set pieces, it is more common for the stone to be another hard material: hematite, obsidian, black agate, or, most frequently, black glass. Jet has not been documented in this kind of setting in other contexts (Allason-Jones, 2005, p. 184). Solinus (IInd–IIIrd century AD) affirms the abundance of gagates in Britannia, adding: "*si decorem requiras, nigro gemmeus*" ("if you require beauty, gem-black") (Solin. Collec. XXIII. 17).

The analysis of classical sources suggests that the term gagates likely encompassed a wide variety of black materials—including different types of coal, as well as shale and others (Allason Jones & Jones, 2001).

It has often been stated—also in our own previous research—that in the classical world jet was also referred to as *succinum nigrum or electrum nigrum*. However, we have found no trace of these terms in any classical source to date. They appear only in much later publications or lapidaries written in Latin. For example, Casal (1762, p. 394–395, 401) noted that the *succinum* of Asturias was found in the same locations as gagates, and that the latter deserved to be called *succinum nigrum*. He added that both were polished and worked using the same tools and in the same manner.[7]

Isidore of Seville (VIIth century AD) is a valuable source for understanding the exploitation of resources in Late Antiquity *Hispania*. Nevertheless, although some authors have claimed that Isidore was the first to mention jet in the Iberian Peninsula (Suárez Ruiz *et al*., 2006, p. 9), he makes no reference to the occurrence of this material in *Hispania*, despite including a specific section on black gemstones, and refers instead to *Britannia*. On amber he compiles information from earlier authors regarding its origin and triboelectric properties, and adds that it was used by women in rural areas to make jewellery or personal ornaments (Isid. *Etym*. XIV. 8. 6).

Typology, parallels, and interpretation of organic-material amulets in *Hispania*

The significance of these objects as amulets lies not only in the choice of raw material, but also in other features such as shape, sound, and other sensory qualities, including colour, texture, and even smell, frequently overlooked in academic studies. Many of its possible connotations may not have reached us. Pliny highlighted the use of *gagates* smoke to repel snakes, detect illnesses, or for divinatory purposes (Plin. *HN*. XXXVI. 34). Likewise, a magical or ritual use has also been proposed in connection with the aroma of amber, produced through rubbing, heating, or burning, both during the Iron Age and in the Roman period (Palavestra & Krstić, 2006; Davis, 2018).

We distinguish five groups below, based on their characteristics and form. Finally, we will briefly mention other examples documented from the Iberian Peninsula, made from different organic materials and identified as amulets, due to their relevance.

Anthropomorphic amulets

The most intriguing group is formed by small anthropomorphic busts or heads, documented in jet in *Hispania* and in other materials (such as gold, bone, ivory, metal, amber, black glass) elsewhere and, more recently, an interesting specimen in mother-of-pearl from a roman child's grave at *Callatis*, presented during this conference (Alexandru *et al*., 2024, p. 6).

In the Iberian Peninsula, we have so far documented a bust in Astorga, a fragmented head in Huelva, and an item from a private collection held in Lisbon, possibly originating from Asia Minor. This type of object forms a highly significant group, currently under long-term study by one of us (Menéndez Menéndez, 2019; 2023).

Based on the specimens documented from the Iberian Peninsula and the parallels previously cited in our works, we have established five groups so far. Unfortunately, many of these pieces either lack a defined archaeological context or their precise provenance is unknown, which limits the information they can provide about their use.

Group 1- Bust. G.1.a-Nude bust with a topknot or *cirrus*. This group comprises the piece documented in Astorga —19 mm, Ist–IInd centuries AD— (Figure 1a) and other

[6] "I shall have no need here of the testimony of the ancients; I will set forth what I myself have witnessed. A certain man captured a lizard—one of those that are exceedingly green in colour and larger than the rest—and blinded it with a bronze stylus. He then placed it into a freshly made clay vessel, pierced on both sides with small holes sufficient to prevent the creature from being deprived of air, yet not allowing it to escape. Into the same vessel he also put moist earth and a certain herb, the name of which he did not disclose, and likewise an iron ring containing a jet stone on which a lizard was engraved. Finally, he sealed the pot with nine marks and buried it in the ground. Each day he erased one mark, and when the ninth had been removed and the pot opened, I saw that the lizard, having regained the use of its eyes, could see more clearly than before it had been blinded. We then released the creature back to its original place, while the man declared that the ring was beneficial to the eyes" (Clau. NA V. XLVII).

[7] The author was referring to amber and jet found at various locations within Cretaceous zones of Asturias. As a curious detail, he also proposed referring to the craftsmen as gagatarios: "*Omnes praeterea artífices, quos Gagatarios nominare pssumus*" (All the craftsmen, moreover, whom we may call gagatarios) (Casal, 1762, p. 401).

examples from Syria, Germany, and Greece (Menéndez Menéndez, 2019, p. 177; Zwierlein-Diehl, 1991, plate 146, n.º 2441; Hagen, 1937, E7.1, T. 29, 2; p. 127; Kunze, 2018, p. 18–19; Chrysostomou, 2013, p. 287, nº 836). Group 1.b. Nude busts with a topknot and nipples marked by concentric circles or a circle-and-dot motif and defined musculature. This group includes specimens from Crimea, *Viminacium*, and others of unknown provenance (Alekseeva, 1978, T.21 n.º 58; Stoyanova, 2016, p. 157, T.2, n.º 8; Spasić Đurić, 2011, p. 50, fig 12, and 59, fig, 2; Menéndez Menéndez, 2019, p. 177).
Group 1.c- Other variants of nude busts without a cirrus. This is the case with several specimens from Colonia, Stobi, and *Viminacium* (Hagen, 1937, p. 94, 127, T. 29; Nikolovski, 2020, Figure 6; Milovanović y Danković, 2020, p. 130, Figure 4).
Group 2- Clothed bust. This group includes two specimens documented in Tongeren (Belgium) and Colchester (Crummy & Davis, 2020; Menéndez Menéndez, 2019, p. 177).
Group 3- Indeterminate anthropomorphic figures. This group includes, among other specimens currently under study, the head from Las Reliquias (Huelva) —12 mm, IVth–VIIth centuries AD— (Figure 1b), as its fragmentary state prevents us from knowing its original complete shape (Menéndez Menéndez, 2023, p. 580).
Grup 4- Heads with grotesque features. This group includes the specimen held in Lisbon, originating from Asia Minor —19 mm — (Figure 1c), and a similar specimen from a private collection (Menéndez Menéndez, 2019; Aboutaam & Yubero, 2007, p.14).
Group 5- Other jet variants in the form of rings with human heads. One such example is held at the Museum Het Valkhof, ending in the head of a figure that appears to display African features, in line with the toga-clad bust from Colchester (Menéndez Menéndez, 2019, p. 177) and other specimens cited by Hagen (1937).
From our perspective, these pieces draw on diverse traditions that evolved along different iconographic lines. As for the Astorga piece and its parallels, some of these figures appear to depict, as noted in various sources, an athlete, wrestler, or pugilist. At times, these features are combined with others generically described as 'grotesque', or with mocking or aggressive expressions, which were employed for apotropaic purposes in several chronologies and contexts.
In general, the archaeologically recovered specimens are associated with necropoleis and found in contexts linked to infant or female burials, sometimes forming part of assemblages that include other amulets. As for what these objects represent and their possible origin, various theories have been proposed. However, there is a recurring reference to Eastern or North African lands, or to their iconographic influence. In some cases, these may be local adaptations or reinterpretations of objects—possibly imported—that have their roots in earlier traditions. The examples that can be traced across various media, especially mosaics, are remarkably numerous.
A similar function can be proposed for gladiator helmets carved in amber, such as the specimen found in London. The inherent magical value of amber is here combined with an iconography intended to convey luck, courage, and protection, thereby reinforcing its apotropaic power (Davis, 2018). A similar use can be seen in medallions depicting Medusa or the Gorgon, whose protective and apotropaic power would reside both in the raw material and in the form and gaze of the carving (Parker, 2016).



Figure 1– Anthropomorphic and zoomorphic figures: a) Bust from Astorga with *cirrus*. Museo de León; b) Fragmented head from Las Religuias (Huelva). Museo de Huelva; c) Head with grotesque features (preserved in the Museu Arqueológico de Lisboa; d) Quadruped in amber from Mérida (Museo Nacional de Arte Romano). Image: a, b, c by A. Menéndez Menéndez; d, Bustamante *el al.* 2021.

Zoomorphic amulets or those with zoomorphic decoration

Unlike in other geographical contexts, such as *Britannia* or the Rhineland, where zoomorphic figures carved in jet are well attested (Crummy, 2010; Hagen, 1937), no such elements have been identified in *Hispania* to date. However, some decorative motifs found on jewellery—particularly rings, which may have had a magical function or been associated with specific cults such as Christianity—can be included in this category. Has been documented a possible dolphin and a lion from Viladonga, a bird—perhaps a peacock—from Cabriana

(Miranda de Ebro), and other indeterminate elements and symbols (Menéndez Menéndez, 2019, p. 180–184).

We include in this category two amber objects recovered in Mérida. One is a fragmentary piece interpreted as a quadruped, found by chance with other amber elements in a funerary area alongside items in amber and other materials (Figure 1d). These figures have been identified as possibly decorative bibelots or toys (Bustamante *et al.*, 2021), who specifically interpret the piece as a feline on the basis of parallels from Aquileia, while Barrero Martín and Morcillo León (2016-17, p. 53) describe it as a "possible little dog". The second is a pendant identified as a small hare (3 cm) used as an amulet accompanying the cremated remains of an infant. It was found as part of a rich assemblage that included bronze and glass vessels, as well as other amulets made of silver, gold, amber, and mother-of-pearl, dated to the IInd–IIIrd centuries AD. The representation of rabbits and hares has been associated with the moon due to their nocturnal habits, and therefore with protection and vigilance (Márquez, 2022, p. 150–151, no. 65). In Cádiz (1997), a group of amber figurines was recovered from an object-rich, female cremation dated to the Ist century AD. Five of the figurines were identified as zoomorphic toys: four possibly representing rabbits and one indeterminate. The measurements range between 2.7 and 3.8 cm (VV.AA, 2003).

Parallels for all objects are preserved in the Aquileia Museum (Calvi, 2005). Similar amber zoomorphic pieces, combined with a previously mentioned anthropomorphic jet amulet, were documented at Stobi (Nikolovski, 2020).

Bullae

This type of amulet is considered to be of Etruscan origin and was widely used during the Roman period. Such items were made from a wide range of materials—commonly bone, leather, or bronze, and gold for elite contexts. These objects often contained prayers or protective elements against the 'evil eye', which enhanced the perceived power of the amulet. They were typically worn by children, especially males, as a form of protection during infancy and early childhood, and often continued to be worn until they reached adulthood.

To date, only two jet *bullae*-shaped objects have been identified in the Iberian Peninsula. One is a drop-shaped specimen, part of a necklace entirely made of jet, recovered from the northern necropolis of the city of *Balsa* (Tavira, Portugal). No further contextual information is available. It has been dated to the Ist–IInd centuries AD (15mm). The second piece was found at the Roman villa of Veranes (Gijón), dated to the IVth–Vth centuries AD (15 mm). It was not recovered from a funerary context but rather from an area that could be classified as a possible workshop (Menéndez Menéndez, 2023, p. 575–576). It is circular in shape with lateral grooves and central decoration on both faces consisting of either a circle-and-dot motif or concentric circles. It features a suspension loop at the top, perforated longitudinally, which is now broken. The piece has been restored, which gives it an artificial shine and appearance that obscure the true characteristics of both the object and the raw material. However, as is typical for this material, numerous cracks are visible, as also observed in the *Balsa* specimen.

The drop-shaped bulla from *Balsa* is a simple form commonly found in glass or amber. The example from Veranes is, so far, the only known piece of this typology made in jet. However, the same form is widely attested across the Mediterranean over a broad chronological span, in materials such as bronze and gold. As an example, we may cite a gold specimen held in the Thorvaldsens Museum in Denmark, dated to the IVth century BC. In a closer context, a similar item was recovered at the Campa Torres site (Gijón), in this case made of bronze (Menéndez Menéndez, 2019, p. 165–166, Figure 11B–C).

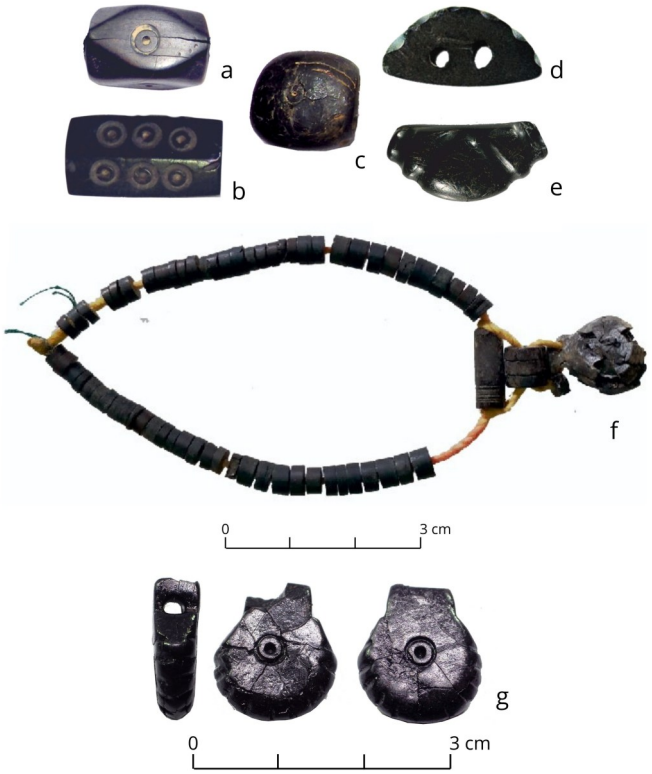

Figure 2.– Bullae, eye beads and lunulae beads: a. Type 1 (La Olmeda, Palencia); b. Type. 2 (La Olmeda, Palencia); c. Type 3 (Hornillos del Camino. Museo de Burgos); d. Lunulae bead (Troia. Portugal); e. Bracara Augusta (image courtesy of Museu D. Diogo de Sousa); f. Balsa (Portugal) (Museu Nacional de Arqueología; g. Veranes (Gijón) (Museo Arqueológico de Asturias). Images by A. Menéndez Menéndez, except where indicated.

Eye beads and *lunulae* beads

We also include, on the basis of their typology and mode of use in certain contexts, a number of beads that clearly

carried protective connotations and can be assumed to have functioned as amulets.

We have recently conducted a comprehensive study of eye beads in *Hispania* (Menéndez Menéndez, 2025), and therefore limit ourselves here to a general description and interpretation of these objects. The beads are referred to as *lunulae* or crescent beads; they correspond to two distinct formal types, carved to form part of articulated bracelets composed of separate elements.

The oculated beads are the most characteristic type from the second phase of jet use in *Hispania* (IVth–VIth centuries AD), particularly from the Vth century onwards, and a close connection can be established with the Black Sea region. They can be grouped into three variants based on shape and number of decorative motifs. The assemblage consists of small objects, rarely exceeding two centimetres in size.

Type 1 – Fourteen-faced polyhedral beads with circle-and-dot decoration on the main faces (Figure 2a). Only one specimen presents a numerical variation in the number of faces; it was found in a medieval context near a villa and is interpreted as a chance find later subject to intentional keeping or hoarding (Menéndez Menéndez, 2003). This typology represents one of the most characteristic bead forms in the Iberian Peninsula and is attested by a total of 60 specimens.



Figure 3. – Bracelet with lunula-shaped beads, Troia (Portugal, Museu Nacional de Arqueologia); b. Jet and gold bracelet with lunula-shaped beads, Mérida (Museo Nacional de Arte Romano); c. Ring with inscription from La Olmeda (Palencia); d. Ring with inscription from Bracara Augusta (image courtesy of the Museu D. Diogo de Sousa); e. Necklaces with oculated beads, amber beads, black glass, and coloured glass, La Olmeda (Palencia). Images by A. Menéndez Menéndez, except where indicated

Type 2– Rectangular-shaped beads with decoration on the upper face. Due to their form and transverse double perforation (Figure 2b). On occasion, they have been mistakenly classified as gaming pieces. They feature a flat base and an upper profile shaped like a pitched roof, with varying degrees of development. The assemblage comprises 17 specimens distributed across 10 archaeological sites. Only one example bears four decorative motifs, while the rest display six.

Type 3– Rectangular or square bead with rounded contours (Figure 2c).

It features a decorative motif at the centre of its two main faces and has a double longitudinal perforation. This form is, so far, limited to 2 specimens recovered from the Late Roman necropolis of Hornillos del Camino (Burgos).

All of these beads are typically combined with other jet bead typologies or with beads made from different materials, such as amber, coloured glass, or black glass (Figure 3e), The closest parallels for these items have been documented in the Black Sea region (Alekseeva, 1978, T. 21).

When referring to oculated decoration, we use the term generically to describe beads bearing a circle-and-dot motif or concentric circles. This design is widely distributed across different periods and cultures and is found on a wide variety of supports. It appears on items of personal adornment as well as on everyday objects. While this type of decoration may in some cases be purely geometric or functional—as seen on gaming pieces—it is often associated with apotropaic symbolism, especially protection against the evil eye. This symbol, with roots in Mesopotamia and Egypt, was later reinterpreted across cultures. It is generally linked to the imagery of the sun or the eye and understood as a sign of power and protection. They reflect widespread apotropaic symbolism consistent with other regions and periods. Their persistence in later contexts suggests a continued symbolic or functional relevance, as is often the case with personal adornment.

With regard to lunula-shaped beads, we refer specifically to those we have defined as Type I.2 a-b and I.9 by us (2023, p. 371). First ones are semicircular beads with a flat or slightly convex base, decorated on the upper surface with incisions or notches, and featuring double perforation (Figure 2d). These beads were the subject of a pioneering study by Mariën (1986-1988).

In the Iberian Peninsula, several isolated examples are preserved, including a set combining this form with other bead types and gold elements documented in Mérida (Figure 3b), a complete specimen from Troia (Portugal) (Figure 3a), and a fragmentary group from Tarraco (Menéndez Menéndez, 2019, 152, Figure 7; 2023, p. 421 and the following pages).

One particularly interesting aspect of this form is that such beads sometimes appear individually, incorporated into necklaces. They have also been documented in graves as solitary finds, either accompanying other types of amulets or deposited directly on top of the burial, which suggests a possible ritual function. This is the case, for example, in a child burial at *Viminacium* (Vojvoda *et al*., 2021, p. 86, 114, Figure 41, no. 2).

Also of interest is a lunette bead from York, found alongside other amuletic items such as a jet bear and a coin (Crummy, 2010, p. 43, 45, Figure 6).

Another possible crescent-shaped specimen, now in the Museu D. Diogo de Sousa, was recovered in *Bracara Augusta*, though without clear stratigraphic context (Figure 2e). (Type I.9 in Menéndez Menéndez, 2019, 164, Figure 10, b; 2023, p. 371). Comparable examples are known only from the Christian necropolis at Tomis (Romania), dated to the IVth–Vth centuries AD, where they likely formed part of a bracelet (Lungu & Chera-Margineau, 1982, p. 187, pl. 3, M14, no. 9).

Rings, bracelets, and other ornaments

Certain items of adornment—particularly rings and bracelets—were also used with a clearly protective purpose, often imbued with magical significance linked to both their form and the manner in which they were worn. For this reason, we include such objects within the broader category of amulets. In addition to the previously mentioned examples bearing zoomorphic motifs, other pieces documented in *Hispania* bear inscriptions that may have carried magical or religious meanings. This is the case for certain specimens documented at La Olmeda (Palencia, Spain) (Figure 3c), Viladonga (Lugo) or *Bracara Augusta* (Braga, Portugal) (Figure 3d) (Menéndez Menéndez, 2019, 184, Figure 10; 2023, p. 661).

A specific ritual use has also been proposed in some cases. Archaeological evidence suggests that metal bracelets and rings could be worn on either arm, whereas those made of organic materials as jet, ivory, bone or black glass were typically worn on the left hand or arm, often in pairs. This practice appears to reflect magical associations with the left side, commonly linked to femininity, the moon and darkness, in contrast to the right side, traditionally associated with masculinity, light and life. Certain classical sources connect ritual gestures performed with the left hand to funerary practices, the earth and the underworld (Marco, 1986; Cosyns, 2011, p. 281). In the case of *Hispania*, some of the few documented examples of bracelets confirm this, such as the four rigid bracelets from Orriols (Valencia), the bead bracelets and ring from Cabriana (Miranda de Ebro), or the rings from La Morterona (Palencia) and Boatella (Valencia). However, most objects lack specific contextual information or details regarding their arrangement within the grave (Menéndez Menéndez, 2023, p. 353).

Some authors also argue that the circular form of rings and bracelets constitutes a protective amulet in itself. For example, Malalana Ureña & Lora Hernández (2013, p. 308) suggest that this shape produces "a continuous, endless movement around the wrist—perhaps a distraction against the evil eye". They also refer to the practice of wearing multiple bracelets together, so that "when they strike another object, or each other, they produce a characteristic and recognisable sound" which may have served a magical or apotropaic function. These practices—combining various amulets as rattles or as devices to ward off harm—have been widely discussed in relation to the Roman world. Particularly relevant for the case of jet in Roman contexts are the contributions of Crummy (2010).

In amber, only a single ring is known in the Iberian Peninsula (type Eβ of Calvi, 2005, tav. 8, cat. 57), discovered in a rich grave assemblage together with other elements in the same material, such as a distaff (Bustamante *et al*., 2024). The same tomb also contained a ring, apparently of black glass, which was erroneously published as jet by Barrero Martín (2022, p. 60, id. 1.2.6).

The historiography concerning inscriptions and apotropaic symbols on rings and gems is very extensive, and we will therefore not dwell on these issues, since for the specific case of jet the information is largely limited to concrete examples cited by Hagen (1937) or Allason-Jones (1996).

Other materials identified as amulets in bone or Ivory

Alongside the jet and amber items already discussed, other organic artefacts of various forms have also been identified as amulets. Rodríguez Martín (2024), records in *Hispania* a wide range of bone and ivory objects, including phallic and higa (fig-hand)[8] amulets—often found together—as well as zoomorphic and anthropomorphic figures. When perforated, they were likely worn as pendants or charms, and some are linked to *crepundia* sets, though others have been classified as gaming pieces.

Particularly noteworthy is a group of female figurines, mainly from Lusitania, interpreted as idols, toys, or amulets. Heras Mora *et al*. (2012) associate them with the cult of *Magna Mater*, noting parallels with Near Eastern figurines. Although their exact function is difficult to determine due to varied contexts and chronologies, some have been identified as dolls (Amorós Ruiz *et al*., 2022). Their connection to ritual or apotropaic use in Late Antiquity, however, appears well established.

[8] Although the fig-hand is the most widely used jet amulet in the Iberian Peninsula in the modern and contemporary periods, no examples in jet have been identified in earlier chronologies.

Production, function, symbolism, and continuity

The production of these objects has been linked to specific workshops for certain materials—such as bone, ivory, amber, or jet. In some cases, these workshops may have been itinerant. It remains unclear whether they always specialised in a single raw material or worked with a variety of materials depending on needs, demand, or fashion. All these organic substances shared similar working techniques, involving processes such as cutting, sawing, drilling, and polishing. These were carried out using multifunctional tools such as saws, files, knives, drills, lathes, or spindle-turners. It is also possible that many of the items discussed were originally produced in perishable materials such as wood, which have not survived.

With regard to the origin of the raw materials or finished products, both local and foreign sources can be proposed. In the case of anthropomorphic jet amulets, a foreign origin appears likely, possibly linked to other production centres such as *Britannia* or eastern provinces.

The oculated beads, which show typological connections with the Black Sea region, were most likely reinterpretations of such objects using local materials. As for amber, we have already noted that the analysed specimens mostly originate from the Baltic, although the possibility of raw material being imported and worked in local workshops cannot be ruled out. In general, jet rings and bracelets include both clearly local and imported productions. While commercial exchange must be considered, it is equally important to highlight the role of population movements under various circumstances, along with the individual bearers of these objects.

Objects such as those cited in jet or amber were often reused after breakage or repaired to allow continued use. This suggests an implicit value, economic, symbolic, or emotional. In the case of jet, amulets such as the busts from Astorga and Huelva were used after having broken. In the first instance, when the original suspension hole fractured, a gold wire was added around the neck to restore its function. Many oculated beads also show worn fractures, indicating prolonged use. Jet bracelets likewise often show signs of repair, sometimes reinforced with gold plates.

Black glass is often identified as an imitation of jet, yet the two are easily distinguishable and follow distinct typological and sensory paths. Jet, being warm to the touch, contrasts with the cold feel of glass. The manufacturing technique is also usually distinguishable at first glance. The increasing popularity of jet or use of shale may have been due to its greater workability and accessibility compared to other hard black stones, much like black glass.

The chronological trajectories of jet and black glass differ significantly. Black glass was produced and consumed throughout the Roman imperial period, with identifiable peaks (Ist–IIIrd centuries AD), and a continued, though regionally distinct, presence in the IVth and Vth centuries AD (Cosyns, 2011). By contrast, jet objects in *Hispania* are scarcely attested before the IIIrd century AD and become more prominent only between the IV-Vth and VIth centuries AD. These divergent chronologies, together with the uneven geographical distribution of jet, suggest that the apparent typological similarities between jet and black glass are better understood as parallel developments within different material traditions, rather than as direct imitations.

The replication or dyeing of objects in other materials suggests that colour was a key feature—possibly more valued than the substance itself. Some authors have discussed skeuomorphism between jet and glass, though certain supposed examples, such as exactly matching rings (Barrero Martín, 2022, p. 257, Figure 77); however, as in other examples, the similarity is due to the fact that both objects are made of glass of exactly the same typology and, very likely, from the same workshop. Nevertheless, numerous dyed bone items point to intentional imitation, possibly also in wood, reinforcing the idea that organic materials were preferred to imitate one another. The carving features are similar, as are the sensory impressions. In this regard, notable jewellery from *Hispania*—such as bracelets and a necklace preserved in Mérida, previously exhibited and classified as bone, glass, and ivory, respectively—were identified by us as jet in 2015 (Menéndez Menéndez, 2019, p. 148-152).

The use of jet has been linked to various cults whose origins are associated with the veneration of a black stone, such as the cult of Cybele or *Magna Mater*. The symbolism observable in different elements may also be related to Christian worship. The colour black, in turn, has been associated with mourning, death or the underworld (Sevilla Conde, 2014, p. 32). Along similar lines, amber is cited as a material used in religious and funerary ceremonies (Davis, 2018, p.77). Diodorus Siculus (5.23) refers to it as commonly associated with mourning the death of the young, with such substances considered suitable offerings to accompany the deceased.

While it is difficult to ascertain immaterial aspects—many of which have not been transmitted to us—the continuity of certain uses, beliefs, and symbolic associations linked to both raw materials, and others visually similar, remains evident (Menéndez Menéndez, 2024).

Concluding remarks and future research directions

The analysis presented in this study highlights the role of organic materials used as amulets in Roman and Late Antique *Hispania*. These were chosen not only for their physical or aesthetic qualities but also for their symbolic, apotropaic, and—in some cases—ritual connotations, as reflected in the ways they were used, combined, modified, or preserved. Particular attention is given to

jet, with brief reference also to other, less well-known organic materials.

Typological analysis reveals, for now, a limited range of amulets in *Hispania*. However, other items—such as beads, jewellery with diverse decorative motifs, or even everyday objects, including items classified as toys, may have served a similar function, extending beyond the purely ornamental or practical use.

Most of the pieces discussed here find parallels in Mediterranean and Black Sea contexts, suggesting both local reinterpretations and connections with broader symbolic languages. The persistence of certain motifs, such as the circle-and-dot design, across centuries and materials supports the existence of long-standing magical -religious traditions.

The archaeological contexts in which these amulets are found—frequently associated with female or child burials—reinforce their protective and liminal character. Their placement—often on the left side of the body, in even numbers, or directly on the tomb covering—indicates ritual gestures and clear intentionality within the funerary sphere.

Moreover, the reuse, repair, or even ritual deposition of some of these items points to a symbolic, emotional, or personal value that went beyond their practical or economic function. Classical sources, along with certain ethnographic parallels, offer insights into how such objects were perceived and used, reinforcing their role as mediators between the individual and the unseen world.

In short, jet, amber, and other organic materials were not passive substances but active agents in the construction of protective identities and apotropaic practices in Roman and Late Antique *Hispania*. Much remains to be done, both in terms of raw material characterisation and the archaeological documentation of further specimens. Their study offers a deeper understanding of personal beliefs and cultural contact, as well as of broader symbolic systems embedded in daily life, ritual, and death—systems which still merit further investigation.

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Classical sources

Claudius Aelianus. *De Natura Animalium*. A. Firmin Didot, 1858

Diodorus Siculus. *Library of History*. Translated by C. H. Oldfather. Loeb Classical Library 384. Cambridge, MA: Harvard University Press, 1950.

Galeno (1552). *De simplicium medicamentorum*. Ed. Guillaume Rouillé.

Isidoro de Sevilla. (2004) *Etimologías*. Traducción y notas de I., Oroz Reta, J., Marcos Casquero, M. A. Biblioteca de Autores Cristianos.

Julius Solinus. (1895). *Collectanea rerum memorabilium*. Theodor Mommsen, 1895.

Plinius Secundus. *Naturalis Historia*. Translated and annotated by John Bostock, M.D., F.R.S. H.T. Riley, Esq., B.A. London. Taylor and Francis, Red Lion Court, 1855.

References

Aboutaam, A. & Yubero, H. (2007). *Exotics of the Classical World. Phoenix Ancient Art S.A.*

Alekseeva, E. (1978). *Antičnye busy Severnogo Pričernomor'â*. (G1-12. [T. II]. Moskva.

Alexandru, N., Mărgărit, M., & Hamat, A. (2024, November 15–16). *A mother-of-pearl amulet discovered in a child's grave at Callatis* [Conference presentation]. *International Conference on Amulets (ICA 2024): Abstracts,* Museu de Arqueologia D. Diogo de Sousa, Braga, Portugal.

Allason-Jones, L. & Jones, D.M. (2001). Identification of jet artefacts by reflected light microscopy. *European Journal of archaeology*, vol. 4 (2), 233-251.

Allason-Jones, L. (1996). *Roman jet in Yorkshire Museum*. The Yorkshire Museum.

Allason-Jones, L. (2002). The jet industry and allied trades in Roman Britain. En P. Wilson y J. Price (eds.) *Aspects of industry in roman Yorkshire and the north*. Oxbow Books.

Allason-Jones, L. (2005). Coals from Newcastle. En N. Crummy (ed.). *Image, Craft and the classical world. Essays in honour of Donald Bailey and Catherine Johns*. (pp.181- 185). Monográfico Instrumentum 29.

Alvar Nuño, A. (2012). *Envidia y fascinación: el mal de ojo en el Occidente romano*. Arys: Antigüedad: religiones y sociedades.

Amorós Ruiz, V., Doménech Belda, C., & Sala Sellés, F. (2022). *A propósito de un colgante antropomorfo en contexto altomedieval de La Alcudia de Elche (Alicante). Zephyrvs: Revista de Prehistoria y Arqueología,* 90, 219–235. https://doi.org/10.14201/zephyrus202290219235

Barrero Martín, N. (2022). *Ornamenta Muliebra. El adorno personal femenino en Mérida durante la antigüedad.* Monografías Emeritenses 13. Fundación Estudios Romanos/Museo Nacional de Arte Romano.

Barrero Martín, N., & Morcillo León, A. (2016–2017). Objetos de ámbar del 'ajuar de La Antigua' (Mérida, España). *Anas*, 29–30, 51–60.

Bustamante, M., Murillo-Barroso, M., & Sabio Gutiérrez, R. (2021). Análisis arqueométrico, contextual e iconográfico de piezas de ámbar romano

localizadas en Augusta Emerita (Mérida, Badajoz). *Conimbriga*, 60, 107-142. https://doi.org/10.14195/1647-8657_60_

Bustamante Álvarez, M., Menéndez Menéndez, A., & Bejarano Osorcio, A. M. (2024). Instrumenta textilia et luxuria. A propósito de dos ruecas en ámbar localizadas en Augusta Emerita (Mérida, Badajoz). *Zephyrvs*, 93, 125–150. https://doi.org/10.14201/zephyrus202493125150

Calvi, M. C. (2005). *Le ambre romane di Aquileia. Associazione* Nazionale per Aquileia.

Campón, E., Fernández, J. C. & Solans Huguet, J. (1978). El azabache de los yacimientos de Oles (Asturias). *Trabajos de Geología. Departamento de Cristalografía y Mineralogía*. Universidad de Oviedo, 161-166.

Casal, G. (1762). *Historia natural y médica del Principado de Asturias.* Madrid: Imprenta de Antonio Pérez de Soto.

Chrysostomou, A. (2013). *Ancient Edessa. The cemeteries.* Volos: Hellenic Ministry of Culture.

Cosyns, P. (2004). Les bracelets romains en verre noir: une étude typologique et contextuelle. Bulletin *de l'A.F.A.V.*, 15-18.

Cosyns, P. (2011). *The production, distribution and consumption of black glass in the Roman Empire during the 1st–5th century AD: An archaeological, archaeometric and historical approach* [Doctoral dissertation, Vrije Universiteit Brussel].

Crummy, N. (1983). *The Roman small finds from excavations in Colchester 1971-9*. Archaeological Report 2. Colchester.

Crummy, N. (2010). Bears and Coins: The Iconography of Protection in Late Roman Infant Burials. *Britannia*, 41, 37-93.

Crummy, N. & Davis, G. (2020). A black mineral amulet from Colchester's North Cemetery. *Britannia* 51, 376-387.

Davis, G. (2018). Rubbing and Rolling, Burning and Burying : the magical use of Amber in Roman London. En A. Parker y S. Mckie. *Material approaches to Roman magic* (pp.69-83). *Oxbow Books*.

Díaz de Neira Sánchez, J.A., Gallastegui Suárez, G., González Menéndez, L. & Mancebo Mancebo, M.J. (2019). *Vocabulario de rocas, sedimentos y formaciones superficiales*. CSIC - Instituto Geológico y Minero de España (IGME). http://hdl.handle.net/10261/273555

Dietz, C., & Jimeno, A. (2014). *Roman amber identified as Siegburgite. Archaeological and Anthropological Sciences, 6*(2), 139–145.

Durán Fuentes, Mª. C. & Fernández Vázquez, Mª. P. (1999). Anillos del castro de Viladonga. *Croa* nº 9, 30-34. http://www.aaviladonga.es/e-castrexo/es/mcroa0930.htm

Fernández Suárez, J., López López, Mª. T., Nuño Ortea, C. & Monteserín López, V. (2012). Explotaciones e indicios de rocas y minerales industriales. En VVAA. *Mapa de rocas y minerales industriales del Asturias. Memoria* (pp. 51-298). IGME. Gobierno del Principado de Asturias.

Gelencsér, Á., Larsson, N. & Majerik, V. (2015). Roman period jet beaded armlet from the site of Bátaszék Lajvér. *Communicationes Archaeologicae Hungariae*, 107-113. https://doi.org/10.54640/CAH.2014.107

Hagen, W. (1937). Kaiserzeitliche Gagatarbeiten aus dem rheinischen Germanien. *Bonner Jahrbücher*, Heft 142, 77–144

Heras Mora, F. J., Bustamante Álvarez, M. & Aranda Cisneros, J. A. (2012a). Figurillas femeninas en hueso. Función y contexto de un tipo particular de amuleto romano de Lusitania. *Habis*, 43, 177-212.

Kunze, F. (2018). Vollkommen erhalten. Ein unberaubter römischer Sarkophag aus Zülpich. *Berichte aus dem LVR-LandesMuseum Bonn*, 14-19.

Lungu V. & Chera-Mărgineanu, C. (1986). Mărgineanu Constantin. Noi morminte de epocă romanobizantină la Tomis / Neue Gräber aus römischbyzantinischer Epoche in Tomis. Materiale şi *cercetări arheologice*, N°16 1986, 145 -154.

Malalana Ureña, A. & Lora Hernández, O. (2013). El ajuar de brazaletes de vidrio del siglo XIII perteneciente a los conjuntos funerarios de la Calle Mendívil (Málaga). Una interpretación para un amuleto universal. *Mainake*, 34, 293-312

Marco, F. (1986). Topografía cualitativa en la magia romana. Izquierda y derecha como elementos de determinación simbólica. *Memorias de Historia Antigua,* 81-90.

Mariën, M. (1986-88). Bracelets composites en jais, d'époque romaine, du type à plaquettes semi-circulaires biforées. *Société Royale d'Archéologie, d'Histoire et de Paléontologie de Charleroi*, Tome LX, 39-58.

Marquez, J. (2021). Colgante en forma de liebre. En N.R. Becerra (Coord.). *El brillo de la apariencia: Joyería romana en Augusta Emerita*. Consorcio Ciudad Monumental de Mérida.

Menéndez Menéndez, A. (2003). Azabache. En J.A. Gutiérrez González (2003): *Peñaferruz (Gijón). El Castillo de Curiel y su territorio* (269-278). Gijón: VTP Editorial.

Menéndez Menéndez, A. (2019). Aproximación histórica y tipológica al uso del azabache, y otros materiales afines, durante la época romana y la Tardoantigüedad en la península ibérica. *Nailos. Estudios Interdisciplinares de Arqueología*, 6, 123-203.

Menéndez Menéndez, A. (2023). *El azabache en Hispania. Análisis tipocronológico, arqueológico y arqueométrico*. [Tesis Doctoral. Universidad de Granada].

Menéndez Menéndez, A. (2024). Pequeñas figuras de azabache en contextos arqueológicos. A propósito de una figura de Santiago de Compostela conservada en el Rheinisches Landesmuseum (Trier, DE). *Instrumentum*, Bulletin nº 59, 53-60.

Menéndez Menéndez A. (2025). Elementos de adorno personal de azabache en *Hispania*: tipologías con decoración de círculo y punto inscrito. *Instrumentum*, Bulletin nº 61.

Milovanović, B. & Danković, I. (2020). Anthropomorphic amulets from *Viminacium*. *Starinar*, 70, 127- 143.

Mottana, S. A. (2002). Ricerche di iconografia mineralogica: I. La pietra "gagate" nel Codex medicus graecus 1della Biblioteca Nazionale Austriaca. *Rendiconti Lincei,* 13, 89-112.

Murillo-Barroso, M., Peñalver, E., Bueno, P., Barroso, R., de Balbín, R. & Martinón-Torres, M. (2018). Amber in prehistoric Iberia: New data and a review. *Plos One*, 13(8), e0202235. ‘

Nikákis, D. (2019). *Kosmímata ellinistikón kai romaïkón chrónon: ta evrímata apó tis anaskafés tou metró sto anatolikó kai dytikó nekrotafeío tis archaías Thessaloníkis. Hellenistic and Roman Jewellery: the finds from METRO excavations at the East and West Cemetery of Ancient Thessaloniki* [PhD. Aristotéleio Panepistímio Thessaloníkis (APTH)]. Repositorio https://www.didaktorika.gr/

Nikolovski, D. (2020). Roman Jewelry in funerary context: female adornment in late second century Stobi. *Monumenta*, 369-382

Palavestra, A. & Krstić, V. (2006). The Magic of Amber. National Museum of Serbia: Belgrade. Rodríguez -Martín, F. G. (2024). *La industria ósea en la Hispania romana*. Archaeopress. https://doi.org/10.32028/9781803276656

Peñalver Mollá, E., Delclòs & Álvarez Fernández, E. (2017). Ámbar local en los niveles magdalenienses de Las Caldas (Priorio, Oviedo, Asturias). En M.A. Corchón Rodríguez (ed.). *La Cueva de Las caldas (Priorio, Oviedo)* (pp. 237-246). Universidad de Salamanca.

Pérez Rozas, Á. & González Rodríguez, R. (2022). O acibeche no castro de Viladonga. Estudo, paralelos arqueolóxicos e evidencias fósiles. *Boletín Croa*, nº 32, 8-27.

Rodríguez Martín, F.G. (2014). Artesanos y talleres del hueso en la *Hispania* romana. En M. Bustamante Álvarez y D. Bernal Casasola. *Artífices Idóneos: Artesanos, talleres y manufacturas en Hispania* (pp. 355-388). Anejos de Aespa LXXI.

Sevilla Conde, A. (2014). *Funus Hispaniense. Espacios, usos y costumbres funerarias en la Hispania Romana*. BAR International Series 2610. Oxford: Archaeopress.

Spasić-Durić, D. (2011). Nakit od gagata iz Viminaciuma i Marguma/Jet Jewelry from Viminacium and Margum. *Journal of Serbian Archaeological Society*, 9-60

Stach, E., Mackowsky, M.Th., Teichmuller, M., Taylor, G.H., Chandra, D. & Teichmuller, R. (1982). Stach's *Textbook of Coal Petrology*. Gebriider Borntraeger.

Stoyanova, A. (2016). Podveski iz mogil'nika Nejzac. En I. Khrapunov (ed). *Krym v sarmatskuû èpohu (II v. do n.è. - IV v.n.è.). T. II. 20 let issledovanij mogil'nika Nejzac* (122-165). Simferopol: Nasledie tysâčeletij.

Suárez Ruiz, I., Iglesias, M. J., Jiménez, A., Cuesta, M. J. & Laggoun-Défarge, F. (2006). El azabache de Asturias: características físico-químicas, propiedades y génesis. *Trabajos de Geología*, 26: 9-18.

Vallejo Casas, E., Ripoll, G., Sánchez Romero, M. & Murillo Barroso, M. (2024). *Baltic amber in Hispania during Late Antiquity: Contacts,* networks and exchange. Oxford Journal of Archaeology, 43(2), 195–216. https://doi.org/10.1111/ojoa.12290

Vojvoda, M., Golubovic, S. & Mikic, I. (2021). *Mors Immatura. Coinage and apotropaic-prophylactic elements in funerary rituals. Sourthern Viminacium cemetery*. Belgrade.

VVAA (2003). *Iocosae Gades. Juegos y diversiones en una ciudad romana*. Museo de Cádiz.

Zwierlein-Diehl, E. (1991). *Die antiken Gemmen des Kunsthistorischen Museums in Wien*. Wien.

GOLDEN AMULETS DEPICTING THE ATTACK ON THE EVIL EYE

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Summary
This study investigates a distinctive group of Roman amulets made from thin sheets of gold (or silver), depicting elaborate attacks on the malevolent *evil eye*. These objects—often circular in shape and embossed with complex iconography—combine visual symbolism with protective intent and offer a fascinating window into apotropaic practices in the Roman Empire and beyond.
More than thirty-five such amulets are currently known, though only a minority were recovered through formal archaeological excavations. The rest originate from antiquarian collections, auction houses, metal detector finds, or undocumented sources, resulting in an uneven distribution of contextual data. Nevertheless, their geographic spread is impressive, spanning regions from England to Cyprus, with a particularly strong representation in central and southern Italy.
The amulets' technological features exhibit significant diversity. They range from simple repoussé motifs to richly detailed pieces, and—in some cases—composite construction. Attachment methods vary: from loops aligned with the disc's plane, to wire rings, to a central "button-like" loop on the reverse. Some examples were suspended on chains, while others appear to have been stitched or affixed to garments. These variations may reflect workshop traditions, functional differences, or post-production modifications. Typological analysis suggests a possible regional clustering of certain features, particularly in the Pannonian area.
The central iconography revolves around an assaulted eye surrounded by aggressive animals (quadrupeds, snakes, scorpions, birds), divine symbols (thunderbolts), weapons (sword, trident, bow), and apotropaic emblems (phallus, celestial motifs). In some examples, human figures—possibly Harpocrates—appear in magical or ritualized poses. The combinations evoke both physical and symbolic violence, meant to disable the harmful gaze.
Chronologically, the motif itself and graves with such amulets are dated in between late 1st and early IIIrd century CE. More symmetrical layout emerges in the IIIrd century and continue in Late Antiquity. These later compositions simplify the visual language and introduce textual elements like religious inscriptions, pointing to the motif's adoption across evolving spiritual frameworks. Despite this, earlier gold amulets retained their appeal well into Late Antiquity, as demonstrated by occasional instances of long term use, stylistic adaptation or reuse.

Keywords: amulets, evil eye, gold, attacking animals, Harpocrates

Introduction

The *evil eye* has historically—and in many cultures, still today—been regarded as a source of misfortune. Harmful forces, often thought to be caused by jealousy, envy, or other malevolent emotions, were believed to be channeled through this gaze.[1] Protecting oneself against such influence was a complex undertaking in which amulets played a significant role. Among the most characteristic Roman amulets intended to combat the evil eye are those depicting an attack on the eye itself, typically crafted from thin, circular sheets of precious metal and featuring embossed motifs.
Praebia of this type provide the most vivid representation of the concept of counteracting the malevolent gaze, incorporating several principal mechanisms of protection. Firstly, apotropaic power was attributed to the very gold from which they were made.[2] Secondly, the reflective and eye-catching quality of these pendants served to divert the hostile gaze away from a potential victim.[3] The third layer of protection lies in the imagery itself: ferocious animals, sharp weapons, divine emblems, and the phallus as a symbol of generative force collectively threaten and assault the eye motif. This visual theme also appears in Roman reliefs, mosaics, frescoes, small objects, and intaglios. A fourth element may also be considered: the round form of the amulets, which some scholars regard as inherently protective in its geometry (Giovannini, 2010, 122, n. 53) or even resembling a round shield, with a protruding eye imitating an umbo.

[1] The topic has aroused interest since ancient times and has been addressed from various perspectives in numerous studies, e.g.: Elworthy, 1895; Seligmann, 1910; Engemann, 1975; Elliott, 2016.
[2] "Gold is efficacious as a remedy in many ways, being applied to wounded persons and to infants, to render any malpractices of sorcery comparatively innocuous that may be directed against them." (Plinius ,Hist. Nat. 33, 25)
[3] "Therefore, they also believe that the amulets help them against envy, since due to their rarity the eye is attracted, so that it is less fixed on those who suffer from it." (Plutarch, Moralia 682)

History of research

These amulets captured the interest of collectors and scholars as early as the XVIIIth century. Consequently, the earliest known specimens entered major museum collections via private holdings—often, regrettably, without associated archaeological data. Most originated from sites in central and southern Italy. Several were published prior to the mid-XIXth century as curiosities or in museum showcases (e.g. Caylus, 1762, 160-161, Pl. LVII,1–2; Caylus, 1764, 125-127, Pl. XXXVIII,3 1764; Arneth, 1850, 30, Pl. IV G96; Marshall, 1911, 343, Pl. LXVIII) and later became—together with similar intaglios—important reference points in foundational studies on magical practices involving the evil eye amulets (Jahn, 1855, 96-97; Elworthy, 1895, 129-131; Seligmann, 1910, 151-153, Fig. 117-125).

Many of these early examples were included in Rita Chinelli's pivotal study on this amulet type, which was initiated by the discovery of examples from Vienna and Fuveau (Chinelli, 2010). Along with an older find from Mainz, these were the only specimens then known to her with provenances outside of Italy. However, subsequent discoveries published over the past fifty years demonstrate that they are equally prevalent in Central Europe and the Balkans—although, here too, most are documented only with basic locational information. The growing number of metal detector finds has expanded the known distribution to include additional sites in England (Darch, 2012; Ahmet, 2018; Parker, 2020; Artefacts, 2025). More recently, securely contextualized examples from professional excavations have been added to the corpus (Castella et al., 1999, 278-280, cat. 1810, fig. 265, T. 172; Musco et al., 2001, 185-186, Fig. 36; Klekovski, 2022, 189-191, Fig. 7-8).

At present, more than thirty-five such amulets are known (Table 1, Figure 1).[4] Approximately half are older discoveries with sparse or incomplete documentation. Some are known solely through written descriptions, others only through illustrations. The specimen from Sicily (N° 2) in the Caylus collection—which Chinelli, based on its identical form, equates with the example in the du Chastel de la Howarderie collection (N° 19)—may in fact represent a different object, as the drawing of the former omits the suspension loop, suggesting the possibility of two distinct pieces, not to mention difference in size of published illustrations.

The remaining examples include three metal detector finds (N° 3, 10, 12), four specimens appearing in antiquarian auctions (N° 9, 13, 30, 35 – known only from photographs and lacking compositional analysis, rendering authenticity uncertain), one recovered during illicit excavation of a burial ground (N° 4), two chance finds (N° 29, 32), and nine recovered through formal archaeological investigation (N° 5-8, 11, 16, 27, 28, 34). Thus, we are dealing with a highly limited dataset in terms of find context and provenance.

[4] For easier identification, in the remainder of the study I refer to the numbers from Table 1, which also correspond to the numbering in Figure 1.

	FINDSPOT / (EX COLLECTION) / LOCATION	CONTEXT	RC 2010	FIRST PUBLICATION	FASTENING	PECULIARITIES	DATATION
1	Cyprus (col. Cesnola) MET, object n. 74.51.3663			Myres, 1914, 398, cat. 3663; MET, 2025	E?	wired border?	
2	Sicily (col. Caylus) ?		1	Caylus, 1764, 125-127, Pl. XXXVIII,3	?		
3 a,b	Norton (PAS: KENT-DD7BC3)	MD		Ahmet, 2018; Pearce & Worrell, 2020, fig. 23	?	two disks, loop broken off?	
4 - 8	Marvinci - Isar (5 examples) Skopje, **Археолошкли Музеј на Република Северна Македонија**	G		Ivanovski, 2006, 179-180, cat. 7; Klekovski, 2022, 189-191, fig. 7-8	E		early 3. c. AD
9	Macedonia? Hermann Historica A 64, lot 3604	A		Hermann Historica, 2012	E?	broad flat border, same matrix as No 4-8	
10	Keswick (PAS: NMS-B9A004) Norwich, Castle Museum	MD		Darch, 2012; Worrell & Pearce, 2014, 419, Fig. 20	C3	deformed, two secondary(?) holes	
11	Roma - Stazione Tor Sapienza, Mausoleo, vano C3, tomba 3	G		Musco et al., 2001 , 185-186, Fig. 36	D	wired border	middle 2. c. AD (Antoninus Pius)
12	Fuveau - Plan-de la Fabrique-Est	MD	B	la-detection, 2008; Chinelli, 2010, 76, fig. 3	D		
13	? Matthew Holder	A		Matthew Holder, 2025	D	secondary loop?	
14	Herculaneum - Portici (col. Caylus?) BNF?		3	Caylus, 1762, 160-161, Pl. LVII, 1–2	D		
15	Italy? (col. Campana) Louvre, inv.n. Bj 32			Clement, 1862, 71, n° 238; Louvre, 2021	D		
16	Massa Marittima t. 2 Massa Marittima, Museo Archeologico	G	5	Camporeale, 1985, 168, 180, cat. 398	D		late 1. c. AD
17	Volterra? (col. Galluzzi) Firenze, Museo Archeologico, inv.n. 132255			Cygielman, 1992, p. 5, n. 45, fig. 45	A1		
18	Italy? (col. Castellani) Roma, Museo Vila Giulia, inv. n. 53973			Sgubini Moretti, 2000, 193-194: cat. 159	A1		
19	? (col. du Chastel de la Howarderie) ?		1	du Chastel de la Howarderie, 1898, 459;	A1	chain?	
20	? (k. k. Münz- und Antiken-Cabinettes) NHMWien?		2	Arneth, 1850, 30, Pl. IV G96	A1		
21	Italy? (col. Falcioni) Musei Vaticani, Museo Gregoriano Etrusco, inv.n.13570		8	Donati, 2000, 196 cat. 21.	A1	two beaded rings, waved line between	
22	? ?			Muret, 2025, pl. 119: 3	A1	double beaded edge	
23	Mainz (col. de Robiano) Bruxles, Cabinet des médailles,?		11	Michaelis, 1885, 313; Picqué, 1898, 372	A1	oversized, chain	
24	? (col. Hamilton) British Museum, mus.n. 1772,0314.84		7	Marshall, 1911, 343, Pl. LXVIII cat. 2887; BM, 2025	A1, C3	two secondary (?) holes	
25	? John Hopkins University Museum, acc.n. 485 (formerly FIC.07.225)			Hughes, 2011	A1	secondary pendants	
26	? (col. Townley) British Museum, mus.n. 1814,0704.1172)		6	Marshall, 1911, 343, Pl. LXVIII cat. 2888; BM, 2025	A2	lateral loops double beaded border	
27	Wien - Am Hof Museen der Stadt Wien, inv. n. MV 77183/1		A	Chinelli, 2010, 76, fig. 1, 2	B?	broken, deformed? wired border	secondary use? (4.-5. c. AD)
28	Bratislava - Rusovce-Pieskový hon, grave 58	G		Schmidtová & Ruttkay, 2008, 392, fig. 12.	B	wired border	secondary use (6. c. AD)
29 a,b	Osijek - Donji grad Osijek, Muzej Slavonije, inv.n. 7119			Bulat, 1989, 287, T. III: 1a,b; Šimić & Filipović, 1997, 75, cat. 24.	B	chain, two disks, wired border	
30	? Hermann Historica A 63, lot 1892	A		Hermann Historica, 2011	B		
31	? (col. Townley) British Museum, mus.n. 1814,0704.1173		10	Marshall, 1911, 343, Pl. LXVIII cat. 2889; BM, 2025	B	crushed uper part, flat border	
32	Guberevac - Rt Beograd, Narodni muzej, inv.n. 3515/III			Popović, 1996, 96, cat. 134	C2		
33	Ptuj- Spodnja Hajdina (excavation Vnuk 1893) UM Joanneum Graz, inv.n. 7637	G?		Karl, et al., 2009, 120, cat. 669; Preložnik, 2022, 86-87, fig. 1	C2		
34	Avenches - En Chaplix, structure 296 Avenches, Musée romain,inv.n. 1810	G		Castella et al., 1999, 278-280, cat.n. 1810, fig. 265, T. 172	C1	silver, drop shape, soldered on backplate	middle 2. c. AD
35	? Apollo Art Auctions	A		Apollo auctions, 2023	B	oversized, two identical parts	
36	Napoli (col. Caylus) ?			Caylus, 1764, 127	?	silver, bigger	
37	? (col. Borgia) Napoli, MANN?		4	Zoega, 1880, III, 457, cat. 19 (99)	D		
38	Italy ? ?			Bullettino ICA, 1843, 66	?		

Table 1: Metal amulets depicting the attack on the evil eye. RC = Number on the list in Chinelli, 2010, Tab. 2; context: A = auction, MD = metal detector find, G = grave find; fastening: A1 = soldered loop on top, A2 = lateral loops, B = grooved ring on top, C1 = single hole on top with inserted wire ring, C2 = two holes on top with inserted wire loop, C3 = two holes on opposite lateral sides, D = ring on backside ("button stile"), E = without visible fastening.



Figure 1: Metal amulets depicting the attack on evil eye. Gold, except no. 34 (silver). The numbering corresponds to Table 1, which also lists the known sites and place of preservation, as well as the first and illustrated publication. Scale approximately 1:1.
Source and/or copyrights of the illustration: 1 MET, 2025; 2 Caylus, 1764, pl. XXXVIII: 3; 3 Ahmet, 2018; 4-8 Klekovski, 2022, fig. 7, © The Archaeological Museum of Republic of North Macedonia; 9 Hermann Historica, 2012; 10 Darch, 2012; 11 Musco et al., 2001, fig. 36; 12 la-detection, 2008; 13 Matthew Holder, 2025, © Matthew Holder; 14 Caylus, 1762, pl. LVII: 1; 15 Louvre, 2021, © Louvre; 16 Camporeale, 1985, 168, cat. 398; 17 Cygielman, 1992, fig. 45; 18 Sgubini Moretti, 2000, cat. 159; 19 du Chastel de la Howarderie, 1898, 459; 20 Arneth, 1850, pl. IV: G96; 21 Donati, 2000, cat. 21; 22 Muret, 2025, pl. 119: 3, © Bibliothèque nationale de France - Département des Monnaies, médailles et antiques; 23 Picqué, 1898, 372; 24, 26, 31 BM, 2025, © The Trustees of the British Museum; 25 Hughes, 2011, © John Hopkins University Museum; 27 Chinelli 2010, fig. 2; 28 Schmidtová & Ruttkay, 2008, fig. 12; 29 Šimić & Filipović, 1997, 75, cat. 24; 30 Hermann Historica, 2011; 32 Popović, 1996, cat. 134; 33 © Universalmuseum Joanneum; 34 Castella et al., 1999, pl. 172: 1810; 35 Apollo auctions, 2023, © Apollo auctions.

Distribution and Dating

The deepest insight can be gleaned regarding their spatial distribution. Locational data is available for 22 specimens. For those uncovered in recent excavations, precise archaeological contexts are recorded; for others—especially older finds—we have only place names, general areas, or broader regional attributions. The findspots are relatively evenly distributed across a wide swath of territory: from England (2 specimens), through Germany, Switzerland, France, Slovenia, Croatia, Slovakia, and Serbia, to Cyprus (each represented by 1 specimen). In North Macedonia, five identical amulets were found in five graves at necropolis of Marvinci. A specimen from an unknown site (N° 9) is made by same matrix, and therefore most likely comes from Macedonia. Six were found in central or southern Italy and at least five additional examples—originating from historical collections that mostly took shape in this region—are most likely of Italian provenance. This concentration likely reflects antiquarian interest in Italy, but may also suggest a genuine popularity of such amulets in the local cultural setting. It is plausible that their use extended across the Roman Empire, as comparable iconographic motifs—particularly attacks on the evil eye—have been documented on reliefs and mosaics in regions where amulets themselves have not (yet) been attested, such as North Africa and the Near East (Figure 2).

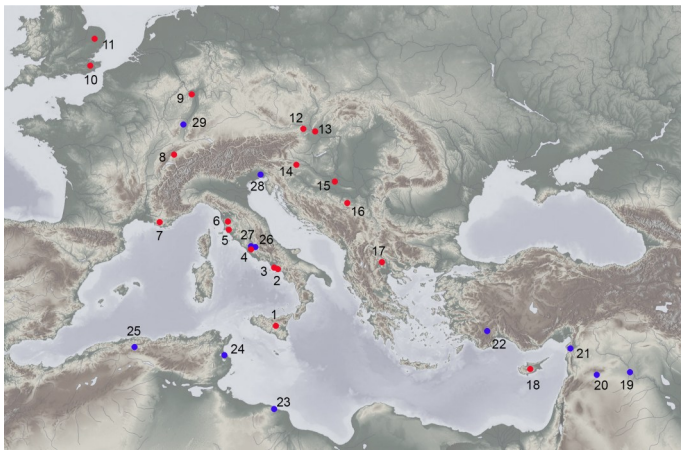

Figure 2: Known findspots of depictions of attack on evil eye, dated between late 1st and early IIIrd century CE.
Red: metal amulets. 1 "Sicily", 2 Herculaneum, 3 Naples, 4 Rome-Tor Sapienza, 5 Massa Marittima, 6 "Volterra", 7 Fuveau, 8 Avenches -En Chaplix, 9 Mainz, 10 Keswick, 11 Norton, 12 Vienna-Am Hof, 13 Bratislava Rusovce, 14 Ptuj-Spodnja Hajdina, 15 Osjek-Donji grad, 16 Guberevac-Rt, 17 Marvinci-Isar, 18 "Cyprus".
Blue: reliefs, mosaics, frescos and ceramic aplique. 19 Dura Europos (frescos), 20 Palmyra-Tomb of the three brothers (fresco), 21 Jekmejeh (Antioch)- House of the Evil Eye (mosaic), 22 Burdur (relief), 23 Khoms-Leptis Magna (relief), 24 Sousse (mosaic), 25 Aumale (relief), 26 Rome-Basilica Hilariana (mosaic), 27 Rome-Museo delle terme (relief), 28 Aquileia (relief), 29 Koenigshofen (ceramic aplique).

Of the nine professionally excavated specimens, eight were recovered from burial contexts (N° 5-8, 11, 16, 28, 34) and one from a roadway (N° 27). Two additional examples were confirmed to have been found within cemetery boundaries (N° 4, 33). If this ratio is cautiously extrapolated, it suggests that the majority were grave goods, while a smaller portion likely represents casually lost items. There is, to date, no evidence for cultic deposition in shrines.

Secure burial contexts date to the Ist century CE (Massa Marittima, N° 16) to the mid-IInd century CE (Rome-Tor Sapienza and Avenches, N° 11, 34) and the beginning of the IIIrd century (Marvinci, N° 5-8). A similar chronology is further corroborated by dated stone monuments and mosaics exhibiting analogous motifs. However, stratigraphic data from Vienna (N° 27) and the appearance of an amulet in a Lombard grave in Rusovce

(N° 28) point to these medallions remaining attractive—and possibly re-used—long after their original production. The example from the Johns Hopkins Museum collection (N° 25) supports this, featuring pendants stylistically attributable to Late Antiquity. Indirect evidence for prolonged use may also be inferred from numerous repairs, though these may equally reflect the object's fragility and intensive daily handling.

Technology and Typology

The growing number of known specimens now permits a more refined consideration of the manufacturing techniques and typological characteristics of these amulets. It must be noted that this analysis is based entirely on illustrations, which vary widely in quality—from rudimentary drawings to high-resolution photographs—due to the diverse nature of the publications consulted.

Because of the composition of the motif (and possibly its magical potency), the amulets are generally circular, or at least strive to approximate this shape. The specimen from Avenches (N° 34) features a teardrop-shaped base, though the motif remains circular in composition. Only the example from Fuveau (N° 12) is distinctly and deliberately elliptical, evoking the form of an intaglio. The typical diameter ranges from 15 to 20 mm, with the notable exception of a pendant from Mainz (N° 23), which measures 30 mm.

With a diameter of 29 mm the pendant from the Apollo auction house (N° 35) is significantly larger. The increased surface area of this piece, together with the smaller number of figures depicted, allows for greater precision and visible detail. Because the eye motif also differs—with an emphasized eyebrow—it appears that this pendant may represent a distinct "branch" within the typology of golden amulets featuring the attack on the evil eye.[5]

Even from illustrations—mostly photographs, with a few older drawings—it is evident that these amulets were produced in various workshops. All feature the central motif of the assaulted eye as a repoussé element, yet they differ in eye size, figure relief, and overall craftsmanship. In some cases, the execution is so rudimentary that individual figures are unrecognizable. Interestingly, all five specimens from Marvinci (N° 4-8) plus an amulet from the Hermann Historica auction house (N° 9) appear to have been made using the same matrix, possibly in a local workshop. Generally, these amulets are made of gold; only the pendant from Avenches and the missing fragments from Naples, mentioned by Caylus, are made of silver (N° 34, 36).

Another technological detail showing considerable variation is the treatment of the edge. Most are bordered with a ring of hammered pellets imitating granulation. These may be small or large, located directly on the edge or set inward, leaving a broad flat border (N° 9, 15, 31), or arranged in one or two concentric rows. The latter can be tightly spaced (N° 10, 22, 26) or separated by a wavy intermediary line (N° 16, 21). In several cases, the border consists of a smooth or twisted wire, applied separately to the disc (N° 11, 27-29).

Attachment mechanisms offer further distinguishing features. The most common method involves a soldered loop affixed to the back of the upper edge, aligned with the plane of the disc. The British Museum specimen BM 2888 (N° 26) is unique in having two side-mounted loops. In the case of the example from the Vatican Museums, the eye's position and the lightning bolt placed consistently above it suggest the loop may have been located on the lower edge—possibly due to an error during production.

A few specimens (N° 28-31) have a grooved ring oriented perpendicular to the disc's plane; a similar loop may have existed on the Vienna piece (N° 27), based on residue at its upper edge. The BM 2889 (N° 31) specimen is affixed to a chain, and the Osijek pendant (N° 29) is suspended on three gold rings. A chain is also mentioned in connection with the Mainz example (N° 23; Picqué, 1898, 372). Additionally, the extra ring attached to the loop of the amulet from the du Chastel collection (N° 19) may point to the use of a similar golden chain.

Specimens from Guberevac and Ptuj (N° 32, 33) have two perforations near the upper edge, through which a wire loop—aligned with the disc's plane—is inserted. As there is no indication of damage, this appears to be an original element. A similar system is seen in the Avenches example (N° 34), where a single hole accommodates a twisted-end ring, this time placed perpendicular to the disc's plane.

A different function—perhaps for stitching—is suggested by the pierced holes on the Keswick example (N° 10), positioned on opposite sides without regard to motif orientation or edge symmetry. Pendant BM 2887 (No 24) possesses similar holes, this time combined with a loop.

A completely distinct form of attachment involves a centrally located loop on the reverse, giving the object the appearance of a "button". This configuration is seen on the amulets from Rome–Tor Sapienza, Fuveau, Herculaneum, the Louvre, Massa Marittima, and the Museo Borgiano (N° 11, 12, 14-16, 37). In the example from the Holder auction house (N° 13), a crudely crafted loop piercing the eye motif may have been added later.

Findings from Marvinci (N° 4-8) indicate that amulets also existed without any visible means of attachment. They may have been glued to a base or simply placed on the deceased.

As Chinelli (2010, fn 4) has already proposed, the fragile sheet metal disc may have originally been mounted on a more rigid backing. Such reinforcement could have been

[5] Interestingly, there are scratches on the eye of this amulet that could be–if not the result of inept cleaning–signs of deliberate aggression towards an evil look.

leather or wood. In the silver Avenches example (N° 34), the repoussé decorative sheet was affixed to an undecorated base plate. Two amulets (Norton and Osijek: N° 3, 29) consist of two joined discs, with the latter apparently incorporating the suspension ring between the layers. In each case, both the front and the back bear a raised decoration—much like that in the Apollo auction house pendant (N° 35).

Can any regularities be discerned from these technical elements? Perhaps the shaped, grooved, ribbon-like rings are more characteristic of the Central European / Pannonian region. The two examples with "tied-on" wire loops also originate from this area. On the other hand, the most visually similar pairs of amulets (N° 16, 21, and 9, 15, 31) employ different attachment methods. Could it be that the same workshops used multiple attachment types depending on function or customer needs? Or are these later modifications, replacing original mechanisms that were lost or damaged?

Iconography

The "attackers" surrounding the malevolent eye at the centre of the amulet display a remarkable diversity. Due to their miniature scale, poor preservation, or unclear illustrations, not all figures can be confidently identified. Among the animals recorded on metal amulets to date are: elephant, goat, lion, dog, dolphin, swan, stork, raven, rooster, parrot(?), snake, lizard, frog(?), scorpion, and crab. Other media—including ceramics, stone reliefs, mosaics, and engraved gems—also feature stag, bull, panther, baboon(?), hare, eagle, owl, duck, tortoise, snail, centipede, bee(?), cicada(?) and ant(?).[6] This long list—spanning domestic, exotic, wild, large, and small creatures—clearly resists attribution to a particular religion such as Mithraism, zodiacal iconography, or a limited pantheon of deities.[7] Instead, these are animals chosen for their widely recognized qualities, precisely because of which they were appropriated by diverse religions and mythologies over time.

The differing presence of certain animals—absent on metal medallions but found in other media—can likely be explained by size limitations and the craftsmanship required. Unique gems, large-scale reliefs, and mosaics were executed by master artisans capable of rendering fine detail, which was not feasible on the stylized, repoussé surfaces of thin metal foil. Despite their precious material, metal amulets were likely produced in series without precise finishing.

	(EX COLLECTION) / LOCATION	FIRST PUBLICATION	MATERIAL	RC 2010
1	Firenze (+ copy Berlin)	Jahn, 1855, T. III: 5,6	blue glass paste (Berlin)	12, 16
2	(col. Gerhard)	Jahn, 1855, T. III: 7	onyx	13
3	MET, New York	King, 1887, 256 fig. 11	sardonyx	14
4	drawing F. Buonarotti	Mastrocinque, 2003, 420 cat. 390	chalcedony	15
5	Berlin 3368	Seligmann, 1912, 99, fig. 8	brown glass paste	
6	Paris, BNF?	Moret, 2025, pl. 119: 1	glass paste imitating green jasper	
7	"tesoro di Via Alessandrina" Roma, Musei Capitolini	AAVV, 1990, cat.n. 46	carnelian	

Table 2: Intaglios depicting the attack on the evil eye (RC 2010 = Number on the list in Chinelli, 2010, Tab. 2).

On metal amulets, the depicted animals are typically those known for aggression or venom: lions, dogs, scorpions, snakes, lizards (possibly crocodiles), elephants, and various birds (eagle, rooster, swan, stork?). Their purpose is unambiguous—to assault and disable the evil eye with fangs, tusks, beaks, claws, horns, pincers, and stingers – as already stated by Engemann (1975, 31).

A similar function is served by pointed weaponry: bow and arrow, gladius and trident. The latter two may be pars pro toto for gladiators, as explicitly shown on the Mainz amulet (N° 23) and echoed in similar iconography from other media, e.g. the Woburn Abbey relief, the gem in Berlin (Figure 3: 5), and the lamp in Galați (Parker, 2020; Seligmann, 1912, Fig. 8; Mandache, 2023). Jupiter's



Figure 3: Intaglios depicting the attack on evil eye. The numbering corresponds to Table 2, which also lists the known information about gems, as well as the first and illustrated publication. Not to scale.
Source and/or copyrights of the illustration: 1 Jahn, 1855, T. III: 6; 2 Jahn, 1855, T. III:7; 3 King, 1887, fig. 11; 4 Mastrocinque, 2003, cat. 390; 5 Seligmann, 1912, fig. 8; 6 Moret, 2025, pl. 119: 1, © Bibliothèque nationale de France - Département des Monnaies, médailles et antiques; 7 drawing after photo in AAVV, 1990, cat.n. 46.

[6] Almost all old finds and often illustrated, most of them e.g. Engemann 1975. See also a less well known lamp from collection Măcellariu in Muzeul de Istorie "Paul Păltănea" Galați (Dragomir, 1984, 171-173, 576-577, Pl. IX, IXA; Mandache, 2023). For intaglios see here Table 2 and Figure 3.

[7] Many authors point out that among the most common animals are the four "Mithraic" ones. Christopher Faraone (2013, 103-107), on the other hand, sees the motif of the attack on evil eye as sort of a template for depicting tauroctony.
For detailed symbolism of individual animals and elements depicted in the context of the attack on the evil eye, and attempts to interpret them through different perspective, see e.g. Engemann, 1975, 30-33; Chinelli, 2010.

thunderbolts, sharp in form and nearly always positioned above the eye, are also prominent. Other celestial symbols such as stars and crescent moons appear less frequently.

A (often winged) phallus is usually not missing either – an ancient protective symbol which attacks the eye with its vital generative force. In related compositions, such as the mosaic from Antalya or the relief from Leptis Magna, the phallus is borne by an ithyphallic dwarf or centaur. Equally symbolic are seemingly harmless creatures known for vitality and fecundity—hares, frogs, and snails—which serve an equivalent function in depictions on reliefs and engraved gems.

Among the broad iconographic repertoire on amulets, two human figures stand out. One, on the Mainz pendant (N° 23), shows a nude figure—either kneeling or seated—holding two objects in its outstretched arms. Picqué (1898, 373) interpreted this as a man attacking with two daggers and suggested it might be a poorly executed *cossim cacans* figure[8], an opinion evidently influenced by a well-known relief from Woburn Abbey, which had already been established as the the best analogy for the Mainz amulet by Michaelis (1885, 313). Neither interpretation is convincing. The pose and nudity are more consistent with representations of Harpocrates. In such a case the objects in his hands could be either a torch, a whip, or a flail. Harpocrates, as a symbol of the rising sun and protector of children, would undoubtedly be a fitting presence on amulets of this nature.

Harpocrates seated on a lotus flower is also a recurring motif on magical gems, and this image recalls another enigmatic figure: a human form in a vessel depicted beneath the eye on amulet from British Museum (N° 26). A parallel motif appears on a ceramic appliqué from Königshofen, where the figure–judging by photograph–may even bear the sidelock of Horus. Nevertheless, Forrer (1910) interpreted the figure as Noah in the Ark, Abt (1911, 12) as a magician battling the evil eye from within a cauldron, and Seligmann (1912, 97) as St. Vitus. Adrien Blanchet later proposed that the figure represents Horus seated on a lotus (1936). Yet in both examples, the vessel unmistakably resembles a cauldron or pot. For this reason, Engemann considered the figure of Eurystheus, who hid in a *pithos* when Heracles brought him Cerberus. However, he himself described this interpretation as unlikely, since it would be a complicated and indirect way of displaying Heracles' strength—something more easily and effectively conveyed by the club (Engemann, 1975, 32).

In connection with Heracles, there is an appealing story of his crossing the ocean in a bowl, borrowed from Helios during his tenth labour (Apollod. 2.5.10). Was this myth well known and popular enough to be depicted on an amulet? Perhaps the explanation of the motif is hidden in the syncretism of Heracles in the sun bowl (used by Helios when traveling back to the east during the night) and Harpocrates (=young sun) in a papyrus boat. If so, it could symbolize the power and protection of the rising—or even the "night sun"—especially since the motif is depicted beneath the eye.

A compelling parallel exists in a magical gem from the Severeanu collection (Bucharest Municipality Museum; Gramatopol, 1982, 260, cat. 59, Pl. XX: 9),[9] where a crouching figure (Harpocrates) with a radiate crown is depicted atop a vessel-like object placed between seated male and female figures (possibly Isis and Serapis). Owing to the schematic rendering, the object might just as well represent a pot as a stylized lotus.

An intriguing interpretation of the iconography and purpose of amulets from Marvinci was offered by Jane Klekovski. He identifies the animal figures as those associated with the Egyptian pantheon, viewing the amulet not as protection against the evil eye but as the Eye of Horus, guiding the soul through the underworld and ensuring a peaceful, eternal, and righteous afterlife in the company of benevolent deities. Klekovski even sees the amulet bearers as Egyptian immigrants (Klekovski, 2022, 190-195, 198-199). This hypothesis seems too bold, but it is plausible that these amulets carried a unique significance in the region.

Notably, all four scientifically acquired amulets were found in graves lacking conventional grave goods—one accompanied solely by the amulet, three with only an obol for Charon. In all cases, the deceased were adults (Klekovski, 2022, 189, 195). This contrasts sharply with finds from Avenches and Rome, where amulets accompanied richer inventories in the graves of a child and a young woman, respectively (Castella et al., 1999, 278-280; Musco et al., 2001, 185-186), aligning with the belief that the youth are especially vulnerable to the evil eye and require heightened protection. Could it be that, at Marvinci, the imagery of anti-evil eye amulets has been appropriated and reinterpreted by a local mystery cult?

Afterlife

The depictions of attacks on the evil eye, as outlined in this study, are characteristic of the late Ist to early IIIrd centuries CE. This observation holds not only for amulets but also for securely dated stone monuments and mosaics. In the IIIrd century, however, a new variant emerges—one that emphasizes symmetry in the scene more than previous compositions. Above the eye, weapons such as daggers, swords, and spears are arranged; flanking it are two similar animals (e.g., lions or snakes), and between them a central figure like a bird, snake, or scorpion. The range of figures narrows: phallic motifs and thunderbolts are no longer present.

The earliest examples of this symmetrical type appear on ceiling tiles from the synagogue at Dura-Europos

[8] Squatting and defaecating figure, popular apotropaic motive.

[9] Alina Muşat provided me with a new photograph, for which I am very grateful.

(Engemann, 1975, 38, fig. 8). This indicates that the motif was adopted within Jewish and Christian iconographic traditions as well, further emphasized by accompanying religious inscriptions frequently found in such compositions. Most known instances come from bronze amulets, though the motif is also preserved in a wall painting from the monastery at Bawit. These amulets are typically dated to the Late Antique or Early Byzantine period (e.g. Schlumberger, 1892, no. 1, 10; Engemann, 1975, 37-39).

Nonetheless, the earlier golden amulets continued to exert visual and symbolic appeal. The specimen from Vienna was found in a Late Antiquity stratum, datable to the IVth or early Vth century CE (Chinelli 2010, 93). The amulet from the Johns Hopkins Museum bears later additions—pendants featuring pearls and semi-precious stones—whose style is consistent with Late Antique jewelry traditions. Even more striking is the piece from Rusovce, discovered in a Lombard grave (Schmidtová & Ruttkay, 2008, 392, fig. 12). In this case, the object was clearly preserved over an extended period or, more plausibly, reused—its meaning and function evidently remaining intelligible and relevant to a new generation of users.

Conclusion

The group of 38 amulets presented here is far less common and widespread than some others, such as phalluses, bullae, lunulae, or bells, yet more clearly and directly targets the evil eye. Their production and primary use are limited to just over two centuries, from the first century to the early third century CE. Due to technological differences and varying quality, we can infer that they were produced by different workshops—primarily in Italy, and later likely elsewhere, as suggested by specific local variants from the Danube region and Macedonia.

These amulets are very small and thus clearly personal objects, yet we find nearly identical iconography on contemporary reliefs and mosaics intended to protect public spaces. The amulets likely emerged as a response to the popularity of these high-quality works, as evidenced by their almost exclusive production in gold and the occurence of similar motifs on gems. So far, no examples have been found rendered in bronze or glass—materials typically used for affordable mass production.

The appearance of these amulets is, on the one hand, quite uniform: an eye in the centre, surrounded by various “attackers”. These attackers, on the other hand, can vary, as the makers could draw from a wide range of aggressive animals (from venomous insects to reptiles, birds, and large mammals), symbols of vitality and fecundity (phallus), weapons, divine attributes, and human figures. Among the latter, gladiators are certainly represented, and possibly also Harpocrates.

In the third century, the “original” motif—both in artistic form and spiritual meaning—appears to have faded in the western part of the empire, while in the east it underwent certain transformations. The meaningful contexts in which the group of amulets from Marvinci necropolis was found suggest that the community buried there may have used them for different purposes. On the other hand, depictions from Dura-Europos show the beginnings of a trend that simplified the attack on the evil eye into a symmetrical, almost heraldic form, characteristic of later Jewish-Christian amulets.

Although golden amulets were no longer produced, several examples with modifications, later contexts, or appearances in post-Roman settings indicate that preserved pieces remained attractive survivals, continuing to serve their original purpose even centuries after their creation.

References

Abt, A. (1911). Eine angebliche Noahdarstellung auf Tonscherben röm. Technik. *Römisch-germanisches Korrespondenzblatt: Nachrichten für römisch-germanische Altertumsforschung, 4*, 8-14.

Ahmet, J. (2018). KENT-DD7BC3: a roman amulet. https://finds.org.uk/database/artefacts/record/id/921334

Apollo auctions. (2023). Rare Romano-Egyptian Gold Pendant. https://auction.apolloauctions.com/lots/view/5-VTG3V/rare-romano-egyptian-gold-pendant

Arneth, J. (1850). *Gold- und Silber-Monumente des k. k. Münz- und Antiken-Cabinettes in Wien und Beilagen anderer Museen*. Wien.

Artefacts. (2025). Amulett: evil eye (: AML-4001). https://artefacts.mom.fr/result.php?id=AML-4001

Blanchet, A. (1936). Médaillon prophylactique. *Revue Archéologique, Sixième Série, 8 (juillet-décembre)*, 106.

Bonner, C. (1950). *Studies in Magical Amulets, Chiefly Graeco-Egyptian*. Ann Arbor.

BM. (2025). British Museum Collection online. https://www.britishmuseum.org/collection/

Bulat, M. (1989). Rimski zlatni nakit u muzeju Slavonije. *Osiječki zbornik* 279-291.

Bullettino ICA (1843) Adunanza de' 17 febbraro 1843. *Bullettino Dell' Instituto di Corrispondenza Archeologica per l'Anno 1843(5)*, 65-67.

Castella, D., Martin Pruvot, C., & Amrein, Heidi. (1999). *La nécropole gallo-romaine d'Avenches “En Chaplix” : fouilles 1987-1992 : étude du mobilier*. Cahiers d'archéologie romande, 78.

Camporeale, G. (ed.) (1985). *L’Etruria mineraria*. Catalogo della mostra. Milano.

Caylus, A. C. P. (1762). Recueil d’antiquités Égyptiennes, Étrusques, Grecques, Romaines, et Gauloises 5. Paris.

Caylus, A. C. P. (1764). Recueil d'antiquités Égyptiennes, Étrusques, Grecques, Romaines, et Gauloises 6. Paris.

Chinelli, R. (2010). Gegen den bösen Blick... - Ein Goldamulett aus Wien 1, Am Hof. *Fundort Wien. Berichte zur Archäologie, 13*, 76-103.

Clément, C. (1862). *Catalogue des bijoux du musée Napoléon III*. Paris.

Cygielman, M. (1990). *Ori e argenti nelle collezioni del Museo archeologico di Firenze*. Firenze: Centro Di.

Darch, E. (2012). NMS-B9A004: a roman ear ring. https://finds.org.uk/database/artefacts/record/id/490934

Donati, A. (ed.) (2000). *Pietro e Paolo. La storia il culto la memoria nei primi secoli*. Milano.

Dragomir, J. T. (1984). Vestigii milenare inedite în patrimoniul Muzeului Judeţean de Istorie Galaţi - Colecţia Dr. Alexandru Nestor Măcellariu - *Peuce 9*, 157-185, 565-584.

du Chastel de la Howarderie, A. (1898). Lettre de M. le comte Alberic du Chastel de la Howarderie à M. le vicomte B. de Jonghe, président de la Société royale de numizmatique. *Revue belge de numismatique, 54*, 459-461.

Elliott, J. H. (2016). *Beware Evil Eye. The Evil Eye in the Bible and the Ancient World. Vol. 2 Greece and Rome*. Eugene, Cascade Books.

Elworthy, F. T. (1895). *The Evil Eye: An Account of this Ancient and Widespread Superstition*. London, John Murray.

Engemann, J. (1975). Zur Verbreitung magischer Übelabwehr in der nichtchristlichen und christlichen Spätantike. *Jahrbuch für Antike und Christentum, 18*, 22–48.

Faraone, C. A. (2013). The Amuletic Design of the Mithraic Bull-Wounding Scene. *The Journal of Roman Studies, 103*, 96-116.

Forrer, (1910). Ein römisches Noahbild von Königshofen. *Anzeiger für elsässische Altertumskunde 2(2)*, 121-124.

Giovannini, A. (2010). Pendenti in vetro di forma circolare. Spunti di ricerca dagli esemplari del Museo Archeologico Nazionale di Aquileia e dei Civici Musei di Storia ed Arte di Trieste. *Pallas, 83*, 117-141.

Gramatopol, M. (1982). *Dacia Antiqua*. Bucureşti, Editura albatros.

Hermann Historica. (2011). Hermann Historica München. *63. Auktion-Antiken*, 26. 10. 2011, lot 1892.

Hermann Historica. (2012). Hermann Historica München. *64. Auktion-Antiken*, 26. 4. 2012, lot 3604.

Huges, T. (2011). Archaeology of Daily Life - Gold Amulet Pendant. Maryland: John Hopkins University.

Ивановски (Ivanovski), M. (2006). Zlaten nakit od Marvinci. *Folia Archaeologica Balcanica, 1*, 171-184.

Jahn, O. (1855). Über den Aberglauben des bösen Blicks bei den Alten. *Berichte über die Verhandlungen der Königlich Sächsischen Gesellschaft der Wissenschaften Leipzig*, 28-110.

Karl, S., Modl, D., & Porod, B. (eds). (2009). *Katalog Archäologiemuseum*. Schild von Steier 22. Graz: Universalmuseum Joanneum.

King, C. W. (1887). *The Gnostics and Their Remains, Ancient and Medieval*. London.

Клековски (Klekovski), J. (2022). Египетските влијанија на Исар Марвинци / The egyptian influences on Isar Marvinci. *Зборник на Археолошки музеј, 15*, 285-202.

la-detection. (2008). Petit bidule jaune! http://www.la-detection.com/dp/message-68492.htm

Louvre. (2021). Bouton Bj 32. Louvre, Département des Antiquités grecques, étrusques et romaines. https://collections.louvre.fr/ark:/53355/cl010256770

Mandache, T. (2023). Exponatul lunii aprilie 2023 – un opaiţ monolychnis din colecţia dr. Alexandru Nestor Măcellariu (SEC. II-III p. Chr). https://migl.ro/evenimente/2023/04_05_2023_opait/ob_aprilie_2023_opait.html

Mathew Holder. (2025). *Gold appliqué with magical symbols. Roman, 1st-4th Century AD*. https://www.matthewholder.com/product-page/gold-appliqu%C3%A9-with-magical-symbols-roman-1st-4th-century-ad

Marshall, F. H. (1911). *Catalogue of the Jewellery, Greek, Etruscan and Roman, in the Departements of Antiquities, British Museum*. London.

Mastrocinque, A. (ed.) (2003). *Sylloge Gemmarum Gnosticarum*. Boll. Num. Monogr. 8.2.I Roma.

MET. (2025). Roundel, disk with magical symbols. The Metropolitan Museum of Art, New York. https://www.metmuseum.org/art/collection/search/243081.

Michaelis, A. (1885). Sarapis Standing on a Xanthian Marble in the British Museum. *Journal of Hellenic Studies 5*, 287–318.

Myres, John L. (1914). *Handbook of the Cesnola Collection of Antiquities from Cyprus*. New York: The Metropolitan Museum of Art.

Muret, J.-B. (2025). Monuments antiques dessinés, recueil n°10, planche n°119. Bibliothèque nationale de France - Département des Monnaies, médailles et antiques, Paris. https://gallica.bnf.fr/ark:/12148/btv1b84192603/f243.item.zoom.

Musco, S., Petrassi, L., & Pracchia, S. (eds.) (2001). *Luoghi e paesaggi archeologici del suburbio orientale di Roma*. Bibliotheca Land 3. Roma, Baioni Stampa.

Parker, A. A. (2020). Marble Relief of the 'All-Suffering Eye' in Woburn Abbey. *Lucerna, 58*, 6-9.

Pearce, J., & Worrell, S. 2020. II. Finds Reported under the Portable Antiquities Scheme. *Britannia, 51*, 441-470.

Picqué, M. C. (1898), Curieuse amulette gallo-romaine d'or de la collection du comte de Robiano. *Revue belge de numismatique, 54*, 372–374.

AAVV (1990). *Il tesoro di via Alessandrina.* Milano: Silvana Editoriale.

Preložnik, A. (2022). Medicus invidiae: Petovionska fascina in njihova raba. *Keria (Ljubljana), 24(2)*, 85 -110. URN:NBN:SI:doc-X2SB5EUU from http://www.dlib.si.

Schlumberger, G. (1892). Amulettes byzantins anciens destinés à combattre les maléfices et maladies. *Revue des études grecques, 5*, 73-93.

Schmidtová, J., & Ruttkay, M. (2008). Das langobardische Gräberfeld von Bratislava–Rusovce. In. J. Bemann & M. Schmauder (eds.) *Kulturwandel in Mitteleuropa. Langobarden–Awaren–Slawen*. Kolloquien zur Vor- und Frühgeschichte 11(pp. 377–398). Bonn.

Seligmann, S. (1910). *Der böse Blick und Verwandtes. Ein Beitrag zur Geschichte des Aberglaubens aller Zeiten und Völker. (ZweiterBand)*. Berlin: Hermann Barsdorf.

Seligmann, S. (1912). Antike Malocchio-Darstellungen. *Archiv für Geschichte der Medizin, 6(2)*, 94-119.

Sgubini Moretti, A. M. (ed.) (2000). *La collezione Augusto Castellani.* Roma, Libreria Editrice L'Erma Di Bretschneider.

Šimić, J., & Filipović, S. (1997). *Kelti i Rimljani na području Osijeka.* Osijek: Muzej Slavonije.

Worrell, S., & Pearce, J. (2014). II. Finds Reported under the Portable Antiquities Scheme. *Britannia, 45*, 397-429.

Zoega, G. (1880). Museo Borgiano a. 1796-1804. *Documenti inediti per servire alla storia dei musei d'Italia, pubblicati per cura del Ministero della pubblica istruzione* III. Firenze (pp. 395-483).

AMULETS OF THE EARLY MIDDLE AGES — EXAMPLES FROM THE WESTERN SLAVDOM REGION

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Summary
Amulets from the Polish area in the early Middle Ages constituted an important element of symbolic culture and everyday magical-religious practice. Their presence in settlement layers of villages and strongholds testifies to their wide distribution, as well as to the circulation of ideas and symbols within the culture of Western Slavs. They were ascribed multilayered functions: they served as ornaments and markers of social status, while at the same time acting as magical objects, primarily of an apotropaic character. Their meaning also encompassed the sphere of fertility beliefs and protective practices.
Scholars emphasize both their social and cultural dimensions, as well as their magical role. In the realities of the early Middle Ages—marked by uncertainty, natural disasters, and social threats—such objects constituted an important form of symbolic protection. They were believed to guard against disease, sudden death, or the intrusion of supernatural forces. Amulets were therefore not merely "magical tools," but also material signs of belonging to a community and participation in the cosmic order. Their use reflected a dualistic worldview, in which every phenomenon possessed a symbolic dimension and required a protective response. Particular significance was attached to their physical properties—sharpness, sound, and brightness—which functioned as semiotic codes enabling early medieval people to domesticate and balance the chaotic world in which they lived.

Keywords: Magic, Middle Ages, Western Slavdom, archaeology, ethnographic sources

Introduction

The general and popular definitions of amulets are related to objects attributed with the power to protect against various dangers. The word *amulet* comes directly from the Latin *amuletum* meaning 'a cure from sorcery and charms', and from the Latin *hamala* meaning 'to wear' (Kowalski, 1998, p. 20). In traditional pre-Christian societies, which preserve insufficient written sources, discovered objects are most often interpreted through the lens of items in common circulation that are known to have been used for protective purposes. Ethnographic data and transmissions related to their use are applied for this purpose.
In the contemporary Slavic context, the dominant understanding of magic remains both as a set of practical actions and as a particular standpoint on the world. Thus, for example, the anthropologist and religious expert Andrzej Wierciński believes that magic is:

> 'a set of ritual activities directed towards the supernatural, animate, and mysterious side of reality, and aiming, through influencing it, to force a desired change to occur in the environment. Magic is based on the social belief in the efficacy of its procedures and is supposed to achieve the goals pursued by crafts and technology as well as science and art ... Characteristic of magic is the conviction that the meticulous fulfilment of the individual elements of the magical act, in the specific conditions of place and time, and the psychophysical state of its performer, must lead to the desired effect' (1997, p. 103).

This means that magic is not a collection of chaotic actions arising from superstitious fears, but a coherent system with its own logic and meaning, which, however, should not be researched by our measures. It is bound to the world it describes by magical actions. As Anna Engelking noted:

> 'he who acts in a way described as <<magical>> does something to cause what he wants and with the conviction that he will cause it. In contrast, he who says about it is convinced that what the acting person does should not, or generally does not, cause such effects. *Magic* is therefore a descriptive, reporting category, belonging to the language of the observers, not the doers of actions' (2000, p. 21).

Magic and magical thinking in the Early Middle Ages

During the Early Medieval period, the original forms of magical thinking were transformed, mainly under the influence of Christianity's expansion. This religion introduced a new belief system, often alien and difficult to assimilate for rural populations attached to traditional mental structures. Christianity, aiming at effective evangelisation and social integration, partially assimilated selected elements of the old beliefs and cult practices. This process, according to the analysis of Bronisław Geremek (1985, p. 25), not only had a goal of weakening

paganism as an alternative religious-cultural system, but also of facilitating the deepening of faith through the internalisation of religious norms and values among broad social strata. This mechanism involved the partial adoption of traditional customs and rituals, allowing them to be reinterpreted in a Christian spirit to have a more effective pastoral impact.

As a result, a belief system composed of various seemingly incompatible elements was formed. Władysław Dziewulski draws attention to the problem of the limited understanding of the monotheistic character of Christianity in the early stages of its expansion. In his opinion, during the early period of Christianisation it is difficult to speak of a deep assimilation of this idea by the general public, since the dogma of the Trinity and the developed cult of saints and angels rather reinforced the existing polytheistic structures, thus encouraging the development of religious syncretism (1964, pp. 5, 174). Paganism persisted for a long time, especially among the rural population, which was also reflected in the language — the term *pagani*, referring to worshippers of ancient deities, became synonymous with peasants.

The source literature also contains hypotheses suggesting that it was the development of Christianity that contributed to an increased number of demonic beings in Medieval imagery — including through the demonization of ancient deities and nature spirits (Gieysztor, 1982, p. 42; Urbańczyk, 1991, p. 112). Stanisław Czarnowski, on the other hand, argues that the actual popularisation of the basic principles of Christian doctrine — including knowledge of prayers and basic forms of worship — did not occur until the Counter-Reformation period, when the Church undertook more systematic catechetical and pastoral activities (1956, p. 107).

Researchers tend to see in these ambiguous practices forms of belief or magical syncretism, which underwent changes over the course of the Middle Ages. According to Jacek Jaguś, the first stage of transformational change is the official acceptance by the Church hierarchy of the fact that elements of pagan tradition fused with Christian beliefs, which may have survived in some form until the present day:

> 'In the second stage, during the initial period of Christianisation, the Church temporarily accommodated certain forms of syncretism manifested in the above-mentioned collaboration between Christian and pagan priests or in the burials of that period. Such a state of affairs, however, mainly due to its incompatibility with Church doctrine, disappeared over time and today we only learn about it through sources. Finally, in the last, third stage, we can speak of syncretism, which the Church was unable to control, and not only in the first period of Christianisation. Namely, the formation of a new faith in the consciousness of the recent pagans that was precisely a combination of the old pagan tradition involving myths about the sky, the sun, the moon, the stars, lightning, demons, etc. with Christian religion. As one may think, this form of syncretism, to some extent, is still present in people's minds today' (Jaguś, 2000, pp. 109-110; Wawrzeniuk, 2016, p. 20).

The described transformations of the belief system of the Early Middle Ages do not give a complete picture of the magical thinking of the time and the specifics of magical activities. The first was the so-called 'professional magic' (Buchowski, 1986, p. 86), associated with the emergence of specialised fortune-tellers/sorcerers in agricultural communities. Initially, this role was performed by a person from a lineage with the appropriate aptitude; later, a 'priestly class' emerged. With the progress of Christianisation in the lands of the Western Slavs, magic underwent transformations. Michał Buchowski distinguishes 'degenerate' magic, i.e. professional magic functioning outside the dominant worldview. Three spheres are distinguished here: technical, symbolic, and relating to the standpoint on the world (1986, p. 89). According to the Medieval vision of Earth, reconstructable on the basis of chronicle records, which are an image of the colloquial consciousness of Christian elite strata, the natural order, once created, ran according to earthly causality and the *sacrum*. This magical worldview did not develop uniformly, either. Two stages of development can be distinguished here: one conventionally referred to as 'religious magic', the other as 'degenerate' or 'degraded' magic (for simplicity reasons, the term 'degenerate' proper magic will be used in this work). Religious magic emerged in the early days of Christianisation. It appeared in two forms: 'court' magic, combining Christianity with ancient beliefs and elements of 'scientific magic', e.g. astrology (Kieckhefer, 2001, pp. 18, 19, 29, 148), and rural magic, strongly associated with paganism. For the population did not abandon the old ways, practising them in secret, despite the adoption of a new faith (Dziewulski, 1964, p. 199; Dowiat, 1985; Piekarczyk, 1987, p. 36). In ritual practice, there was no clear division between magic and religion. Liturgical objects were treated as talismans and texts as incantations (Dowiat, 1985, p. 174; Kieckhefer, 2001, p. 22). Christian criticism regarded magic as a form of demonolatry, leading to a division between black and white magic (Kieckhefer, 2001, p. 77). During the XIIth/XIIIth to XVth centuries, 'degenerate' magic took one of two forms: 'court magic', more strongly fused with Christian rituals, and magic of the rural type, transformed into a form of so-called 'folk religiosity', a mixture of pre-Christian and Christian elements (Tomicki, 1981; Wach, 1961). This form dominated among the majority of the population and was based on a 'naturalistic-religious worldview': animism, the integrity of nature, and the dualism of good and evil (Thomas, Znaniecki, 1976, p. 175; Tomicki, 1981, p. 30). Worship was closely linked

to the rhythm of nature and the agricultural calendar. Magic was an integral part of the rituals. Peasant religiousness was accompanied by non-church authorities (folk healers, shepherds, blacksmiths), which testifies to incomplete subordination to the Church (Tomicki, 1983, p. 15). Łukasz Gołębiowski wrote: 'superstitions, witchcraft, sorcery (...) are, in a way, part of religion among the people' (1830, p. 136).

The magical worldview of the Early Middle Ages developed out of rural practices and forms of 'folk religiosity', becoming part of a mythologised vision of a dualistic cosmic order. Although heavily influenced by Christianity, it remained distinct from official Church doctrine, functioning as a supernatural sanction for traditional patterns of life. A clear differentiation was drawn between white magic (healing and protective) and black magic (sorcery, harmful charms). This division reflected the popular hierarchy of values, in which the preservation of life and the continuity of the community held primary importance (Tomicki, 1981, pp. 49–50).It can be noted that positive magic was associated with religious worship, involving the practice of *zamawianie* [verbal magic used to ward off illnesses], the use of apotropaic gestures, substances, and objects, including Christian ones (communion bread, the crucifix), as well as liminal practices such as 'being locked in a circle' or the use of items belonging to the dead.

Contemporary scholars frame magic as a social fact and a coherent system of thoughts and rituals whose symbolic meanings — both protective and transgressive — can only be read in a cultural context, avoiding the imposition of Western, rationalist criteria (Tomicki, 1987, p. 16; Engelking, 2000, pp. 39-40; more in Wawrzeniuk 2016, pp. 21-27).

Amulets in the Slavic world — characteristics

According to the definition, the basic characteristics of an amulet were universality, diversity, and visibility. Universality meant their widespread distribution in different strata of society — they were legible and recognisable by the community at large both in terms of form and meaning. Diversity referred to the various roles they could play — from protection against evil spirits, through ensuring fertility, to identification functions. Visibility, on the other hand, suggested that wearing them was a conscious act of cultural communication, manifesting membership in a particular symbolic order. However, it is likely that basically any object, when properly applied, could have been an amulet protecting against charms, spells, etc.; it fulfilled its role once or repeatedly, as it was believed never to lose its properties and power. Such a 'multiple use' amulet was usually handed down from generation to generation, as is known from ethnographic data. This type of gift and offering appeared at key moments for the community (birth, marriage, funeral), performing the function of easing tensions and bringing the giver and the recipient closer together (Kowalewski, 2005, p. 35). The donated object was never neutral — it retained a part of the donor. In cultures of holistic exchange, the gift combined religious and mythological with economic and social aspects (Burszta, 2004, p. 22; 2005, p. 19). In gift-based systems, symbolic capital became a form of power disguised as the legitimisation of difference and obedience (Burszta, 2005, p. 19).

In the Middle Ages, amulets came in the form of animal bones, grains, roots, leaves, flowers, or pebbles. A monk from Rudy Raciborskie mentioned that hare's ears, mole's feet, and other items were placed in children's cradles for protection (Karwot 1955, pp. 20-21). Amulets also included claws, thorns, iron, salt, nettle, smoke, knot, belts, and plants such as mugwort, with apotropaic functions and associated with cattle fertility (Brückner, 1895, pp. 327-328; Moszyński, 1967, pp. 327-328). A XVth-century preacher 'complained' that amulets called *nawęzas* were sewn into dresses or worn on the naked body until they fell off, only to be replaced by new ones, and were also worn around the neck in such a way that they reached the hollow below the breasts (after Biegeleisen, 1929b, p. 349). Stanisław of Skarbimierz wrote similarly about the superstitious use of items (Bylina, 1992, p. 25, see Olszewski 2002, there also a description of earlier sources on superstitions related to amulets). In XVth-century statutes, we also find treatments regarding mugwort, a herb associated with cattle fertility and endowment magic, and furthermore of apotropaic significance (Brückner, 1895, pp. 327-328). Its use for protective purposes is confirmed by numerous ethnographic sources from the Slavdom area and the rest of Europe (Moszyński, 1967, pp. 327-328). Ruthenian sources from the XIVth-XVth centuries mention *nauzas* [magical knots], used, among other things, to protect children (Mansikka, 1922, pp. 178, 189-194).

In semiotic terms, the 'objects' in question are 'micro-texts' of material culture, in which three codes of meaning are intertwined: material (the item's substrate), symbolic (form and ornamentation), and pragmatic (mode of use). The first code involves the choice of raw material with attributed magical properties. The second code is expressed in the forms and motifs that conveyed mythological content. The third code refers to the practices of use — wearing close to the body, in a specific place, sometimes in combination with other amulets.

From the Late Middle Ages onwards, 'characters' — inscriptions of Gospel passages or saints' names, treated as amulets — became popular (Olszewski, 2002, p. 116; Brückner, 1895, p. 332). Although the Church condemned such practices, both pagan and Christian amulets — crosses, scapulars, medallions, or relics — persisted for a long time (Biegeleisen, 1929b, pp. 349-351). This phenomenon indicates the persistence of the belief in the magical power of objects and the gradual blending of both religious traditions.

> 'Synodal proclamations prohibiting the wearing of amulets remained without effect. The belief in their magical power, ingrained in the mentality of the people, could not be eradicated. Thus, red hand ribbons, beads, and garlic were not removed, but other, more 'Christian' amulets were introduced: crosses, scapulars, laces, medallions, pictures, relics of saints or of another kind' (Biegeleisen, 1929b, pp. 350-351, Wawrzeniuk, 2016, p. 103).

Features of Medieval amulets

Józef Kostrzewski (1962, p. 358) draws attention to the specific features of amulets. According to this researcher, these objects may have been:

1. sharp and with sharp edges
2. noisy — ringing, squeaking, buzzing, rattling, etc.;
3. shiny;
4. scorching;
5. intoxicating;
6. bitter;
7. revolting.

According to ethnographic data, amulets were used mainly by children, as they were the ones mainly exposed to various dangers or misfortunes (Moszyński, 1967, 332). Protective items were worn around the neck, in the hair, on the hand, sometimes under the arm or sewn into clothing. They were often hung on doors (Biegeleisen, 1929b, 347). It was also believed that the amulet should be natural, that is, it could not bear any traces of human activity on it.

Some of the characteristics described above and attributed to amulets are also found in artefacts from settlement sites dating to the Early Middle Ages in the Polish area. These artefacts, discovered both in strongholds and in hamlets, indicate that protective and symbolic practices were not limited to the sepulchral sphere, but were also present in the everyday life of the community. An analysis of their forms, the material of their manufacture, and the context of their discovery allows us to assume that they performed apotropaic functions, protecting domestic, workshop, or economic spaces from the effects of supernatural forces. Artefacts of this kind can be regarded as material evidence of the intermingling of the practical and the magical-religious spheres within Early Medieval culture.

In the following part of this work I will present examples of objects most strongly characterised by protective functions, whose power was derived from their particular symbolic properties: sharpness, noisiness, and brilliance. Sharpness was combined with cutting and separating, which in the symbolic sphere signified the ability to cut ties with evil and ward off demonic influences. Noise acted as a means of disrupting the order of the supernatural world — on the one hand, sound was a deterrent, while on the other it was a manifestation of life and energy. Brilliance was light, which symbolised life, power, and the sacred.

Sharp tools and objects as Medieval amulets

Objects with sharp ends — such as axes, knives, or daggers — were used in the Middle Ages for protective purposes. In a semiotic context, 'sharpness' functions as a sign of cutting, separation, and defence, which plays both a real and a symbolic role in the process of constructing a cultural order. The blade played the most important apotropaic role, followed by the material — primarily iron and steel. Among the most commonly used were the axe and the knife, acting as tools of combat and protection. The axe, formerly also made of stone, was considered to be a weapon of the gods and an effective means of defence against evil spirits; it was used, among other things, to 'cut through' demons (Bąbel, 1980, p. 17). Ethnography records numerous birth and family practices, such as putting a knife under the bed of a birthing woman, placing an axe by the threshold, and placing iron in the bath after baptism (Radomskie; also earlier practices Karwot, 1955, pp. 21-22). Sharp objects also protected thresholds of barns and stables, guarded during travel, helped on the farm, and warded off storms (Biegeleisen 1929a, pp. 74-79; Moszyński, 1967, pp. 310, 488). It was popular to drive a knife into an air vortex to stop the wind demon (Wróblewski, 1967, p. 522). Nails, needles, or awls were also commonly used as protective and healing devices. The so-called Rudolf Catalogue of Magic (XIIIth century) contains references to the use of axes by midwives and the insertion of iron into the bath of a newborn after baptism — these actions are interpreted as forms of protective ritual against unclean forces. It seems, therefore, that also in the earlier period — the Early Middle Ages — sharp iron tools played an important role

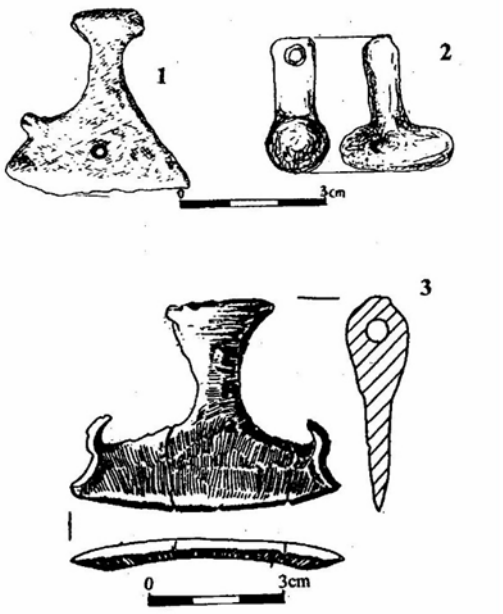

Figure 1. Thor's hammers and miniature axes:
1 – Drohiczyn, Podlasie Province, XIIth/XIIIth and late XIIIth century (after Musianowicz 1969);
2 – Gdańsk, Pomerania Province, 1140–1160 (after Wapińska 1967);
3 – Kruszwica, Kuyavia-Pomerania Province, first half of the 12th century (after Hensel-Moszczyńska 1983) (after Wawrzeniuk 2016).

in apotropaic rituals. Miniature axes, hatchets, and hammers, often with eyelets for hanging, made of iron, copper, silver, amber, or wood are known from excavations (e.g. at Kruszwica, Łęczyca, Wolin, and Cieszyn; Fig. 1). They assumed the functions of the originals and were associated with the cult of storm gods, especially Perun (Darkevič, 1961; Jaguś 2003, p. 10-11). A special role was played by the so-called Thor's hammers made of various materials, popular in Scandinavia and the Baltic area (Gdańsk, Wolin), dated from the Xth to the XIIth century (Gardeła, 2014, pp. 129 -133). In troves, they were also treated as apotropaia protecting deposits (Gardeła, 2014, p. 76). They may also have been a substitute symbol for the cross in newly Christianised communities. From an emblematic perspective, the miniaturisation of the tool reinforces its symbolic meaning — detaching it from its utilitarian function, transforming it into a sign with a protective function. The raw material of these amulets (iron, bronze, silver, wood, amber) was also not accidental — its choice could enhance the power of the sign through the culturally encoded properties of a particular substance (e.g. iron as a metal warding off demons, amber as a healing and protective agent).

Medieval archaeological material included many amulets made from bone. Among them are specimens made from wolf tusks, bear teeth and claws, deer antlers, boar teeth, teeth of foxes, beavers (Figure 2), as well as from domestic animals, such as dogs or horses (Dzieduszycki, Kupczyk, 1993, pp. 128-129, 155). Wearers of amulets made of tusks were attributed with courage and strength; they also protected against evil (Łuka, 1973, pp. 11-12).

An interesting example in the category under discussion, although isolated, is a horn setting from Wiślica (IXth–Xth century), probably a knife or sickle handle (Figure 3). It depicts six human busts with well-defined eyebrows, diadems, and dress necklines, while the eyes are gouged in the form of pits. One of the figures stands out for its larger size and a diadem with three lines. The necklines of the two busts feature diagonal crosses. Below, there is a striped geometric decoration (Wartołowska, 1962, p. 486). The handle was discovered at a stronghold, in a mixed layer over the undisturbed soil, although its original use may have been associated with a nearby island — a ceremonial place. Z. Wartołowska suggested that the busts represented *vilas* — water demons — and that a knife with such a handle was used for offerings made to these creatures (1962, p. 490). In this context, the crosses were probably not just an ornament, but an apotropaic protective sign.

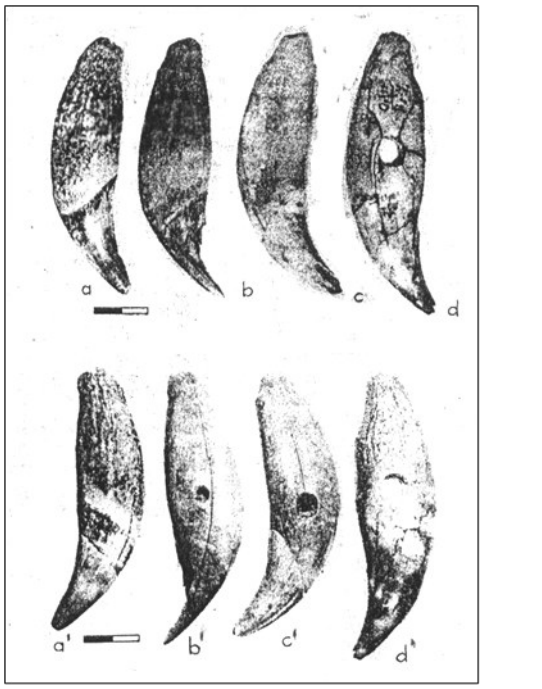

Figure 2. Opole, Opole Province: amulets made of bear tusks, 4th quarter of the 11th – mid-XIIIth century: a, a' – layer C1; b, b' – layer A3; c, c' – layer C2; d, d' – layer B2 (after Norska-Gulkowa 1985).

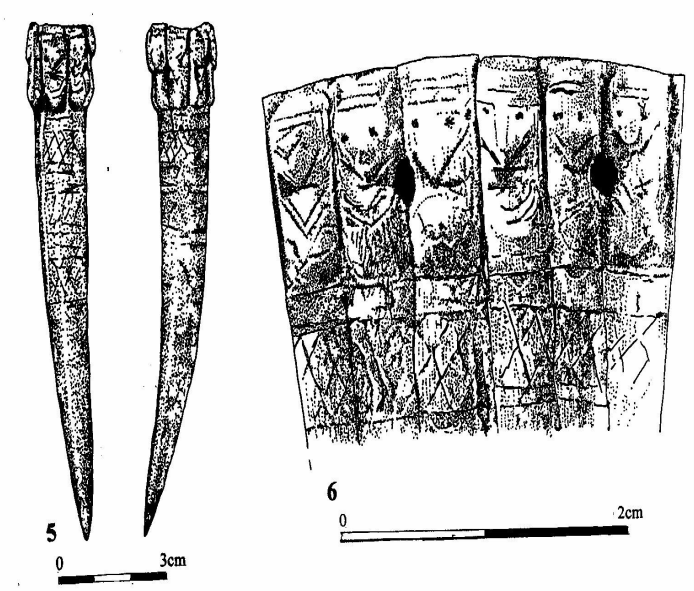

Figure 3. Antler fitting from Wiślica (Świętokrzyskie Province): 1 – the fitting itself; 2 – representation of *wiły* (woodland nymphs) on the fitting, beginning of the XXth century (after Wartołowska 1962), drawing by J. Didik (after Wawrzeniuk 2016).

Noise-producing objects

In traditional belief systems, noise was seen as an effective tool for protection against evil powers (Moszyński, 1967, pp. 481-483). In semiotic terms, it should be interpreted as a *transgressive* sign — operating at the border of worlds, capable of disrupting the order of liminal space (Eliade, 1957, pp. 25-26). Noise, in contrast to silence — identified with stillness, darkness, and death — was a manifestation of activity, presence, and life. In semiotic terms, this corresponds to the category of the oppositional sign, in which meaning is shaped by contrast to its opposite (Barthes, 1964, pp. 45 -47). This binary opposition: silence — noise, is part of the universal structures of mythic and cosmological thinking, where it corresponds to the dualism of chaos and order and life and death, characteristic of many religious and symbolic traditions (Eliade, 1963, pp. 128-135).

It was believed that spirits and demons feared both metal — especially iron — and the sounds it made. Various types of sound objects were used to scare them away, including rattles, knockers, and bells. Noise was seen as a form of 'disturbance' to supernatural beings, who, according to mythological logic, functioned in silence and shadow. Bells from Loreto, brought by pilgrims, were believed to ward off Satan from the dying and storms from homes (Seweryn, 1957, p. 5). 'Rattling' toys: bells, windmills, clappers, whistles, or rattles were given to children, as was commonly believed, to play with. However, they may have been objects for protection, or defence against the evils to which a child was most vulnerable (Rabiega, 1949, p. 119). The ornament on 'emaus' rattles given to children in spring consisted of circles in two sizes, which could form crescents (Seweryn, 1957, p. 8). 'They were to be given to children by their <<grandmothers>> on Easter' and were obliged to 'rattle into the ears of the rams and cows in the barn' (Seweryn, 1949, p. 12).

> 'Clay rattles of spherical shape are reminiscent of clay piggy banks in the form of a woman's breast, found in large areas of Europe in the Middle Ages from the XIIIth to the XVth century. This type of piggy bank was placed on a bench next to the bed of a puerpera, and the participants of a feast held in connection with the reception of a child into the community would drop donations for the newborn into it' (Seweryn 1957, p. 8).

Sound objects thus had a semiotic function as protective signs, acting both by their physical presence and by the acoustic impression they evoked.

Archaeological finds from Early Medieval sites show a wide range of sound objects, such as rattles, bells, bell pendants, and musical instruments: toggle buttons, pipes, whistles, and other aerophones and idiophones. Although their function has not been clearly defined, researchers — based on ethnographic analogies — suggest the possibility of their use not only as toys or musical instruments, but also as objects with a ritual and apotropaic function.

Of particular interest are ceramic Easter eggs and rattles. The Easter eggs were made of clay and limestone and were usually covered with glaze (Figure 4). They were about the size of chicken eggs or ones laid by slightly larger birds. Most often the length varied between 4 and 7 cm and the diameter was about 3-5 cm (finds from Opole-Ostrówek, Gniezno, Wrocław). However, there were larger specimens, up to 8-9 cm in length, interpreted as goose egg models (finds from Opole-Ostrówek and Kruszwica). There are also much smaller forms (approximately 2-3 cm), which could have served as amulets or children's toys. The interior was filled with one or more pebbles (Wawrzeniuk, 2016, pp. 148-151, and references cited therein). The ornament on the

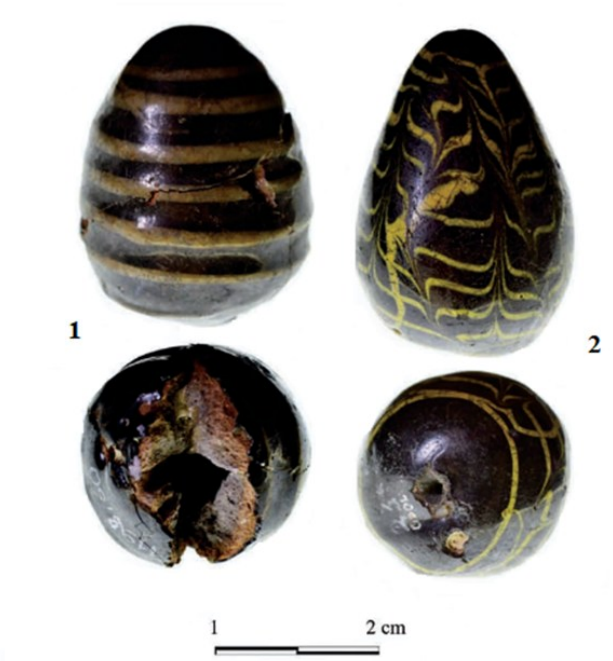

Figure 4. Early medieval egg-shaped rattles from Opole-Ostrówek: 1 - no 1198/52; 2 – 235/61 (photo S. Siemianowska, after Siemianowska *et all* 2023).

Easter eggs consisted of clasping buckles, i.e. short, horizontal, round arches and sigmoid signs (finds from Czermno, Gniezno, Kruszwica, Opole-Ostrówek (Figure 4.2), Poznań, Wrocław). Easter eggs could also be decorated with wavy lines (Radom, Kruszwica sites), straight lines (Opole-Ostrówek Figure 4.1, Sandomierz sites), straight and wavy lines running vertically (Czacz, Szczecin sites), horizontal lines interrupted by vertical grooves (Karnice, Przemęt sites), and lines crossing each other (Opole-Ostrówek). The background colour of Easter eggs was most often green, but also yellow, black, brown, yellow-green, dark green, light cream, pink, blue, and grey-cream. The ornament applied to the background was usually brown, but alternatively yellow, green, dark grey, brown, red, black, yellow-green, and red-brown markings were used (Wawrzeniuk, 2016, pp. 143-144).

Among the limestone Easter eggs, only one is decorated with a floral ornament (Opole-Ostrówek). Its surface is divided by straight lines into eight fields, in which openwork petals of six four-leaved rosettes are placed (Hołubowicz,1956, p. 322, fig. 130; Kowalczyk, 1968, p. 107). A similar motif appears on fragments of chicken Easter eggs from the same site (Bukowska, 1958, p. 46, Plate I). Limestone Easter eggs with linear (Opole-Ostrówek) and indefinite (Opole-Ostrówek, Wrocław) ornamentation are also known. The specimens from Wrocław were carefully worked with the technique of whittling and polishing; traces of dark and brown paint are preserved on their surface (Kaźmierczyk, 1990, pp. 200-201), although they have no discernible ornamentation.

> 'Easter eggs and their remains from archaeological finds show variation in terms of background colour and ornamentation. They are generally found in layers dating from the Xth to the XIIIth century. Finds in or near houses suggested their use in everyday magical procedures. Arguably, the use of materials harder than eggshells was intended to provide greater durability to the magical object, which may have been fulfilled in earlier practices. The use of primarily colours associated with the earth, i.e. fertility and the world of the dead, may also indicate the use in spring rituals. However, Easter eggs and eggs in general certainly played a significant role in the Early Middle Ages as an apotropaic measure' (Wawrzeniuk, 2016, p. 145).

The pebbles inside the Easter eggs probably gave an illusion of life (Kaczmarek 1998, p. 558) and, on the other hand, operated as a deterrent. The tree of life or spiral motif was interpreted as signs of beginning, procreation, and the seed of existence. The coiled arrangement referred to cyclical movement — the constant rebirth of life and the cosmos — while the tree of life symbolised the union of the subterranean, terrestrial, and celestial spheres. At the same time, ornaments in the form of clasping buckles or wavy lines, through their visual dynamism and curved form, connoted the realm of death and the afterlife (Wawrzeniuk, 2016, pp. 148 and n.; Kajkowski, 2020; Słowińska 2020).

On the other hand, rattles known from the area of settlements and strongholds (e.g. Gniezno, Lutomiersk, Brześć Kujawski) differ in shape (Figure 5). They are wart -shaped, pear-shaped, barrel-shaped, egg-shaped, or in the form of bottles. They were also made differently — turned on a potter's wheel or fired from white clay. They were decorated with fluted, grooved, or wavy ornamentations in a horizontal arrangement (usually in the upper part). Technological analysis indicates that they were made in local workshops, although some specimens are linked to influences from Ruthenian culture, analogous to Easter eggs (Łęga, 1930, p. 412; Leciejewicz, Łosiński, Tabaczyńska, 1961, p. 67; Kostrzewski 1962, pp. 408-409; Ślusarski 2004, p. 82, Siemianowska 2008, p. 72).



Figure 5. 1. Clay rattle from the site of Kraków-Kurdwanów, Lesser Poland Voivodeship (https://ma.krakow.pl/dzien-dziecka/ – accessed 1.08.2025); 2. Medieval rattle from Gdańsk, Pomerania Voivodeship, XIth century (https://archeologia.pl/dzialy-merytoryczne-opisy/dzial-sredniowiecza-i-czasow-nowozytnych/ – accessed 1.08.2025).

Another category of noise-making objects are bells — usually made in the form of small pendants that were a few centimetres long (e.g. Giecz, Kruszwica, Drohiczyn, Łęczyca) (Figure 6). Their forms include spherical, egg-shaped, semi-circular, pyramidal, and flat quadrangular specimens. They were made mainly of bronze, or less frequently of silver. The characteristic cut-outs in the lower part usually take the form of a cross or a vertical slit. The ornamentation — often confined to the central or lower part — gives them an additional symbolic dimension. These items are found over a wide area and within a broad chronological framework, which attests to their enduring function and popularity (Wawrzeniuk, 2016, pp. 155-157).

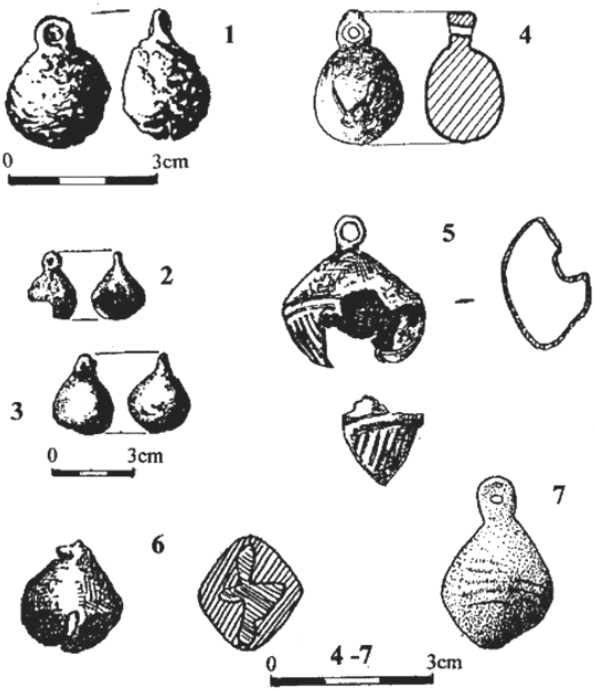

Figure 6. "Bells" from settlements and strongholds.
1 – Kruszwica, Kuyavia-Pomerania Province, XIth–XIIth century (after Hensel-Moszczyńska 1983); 2–3 – Ostrów Lednicki, Greater Poland Province, XIth–XIIth century (after Wrzosek 1961); 4 – Gdańsk, Pomerania Province, early XIVth century (after Hołowińska 1959); 5–6 – Czermno, Lublin Province, XIth–XIIIth century (after Zbierski 1959–1960); 7 – Drohiczyn, Podlasie Province, XIIth–turn of the XIIth/XIIIth century (after Musianowicz 1969).

From the point of view of cultural semiotics, bells, Easter eggs, and rattles can be considered as carriers of magical codes activated by sound, which, in this logic, performs the function of ritual intervention into symbolic space.

'Shining' amulets

Shiny inorganic amulets from the Early Middle Ages include belemnites (e.g. Gdańsk) or mica sheets on a string (Sobieńczyce). The brilliance of the stones had a deterrent effect and, according to W. Szafrański, was associated with a lunar deity cult at the Żarnowiec stronghold (1983, p. 194). Ornamented discs (Opole,

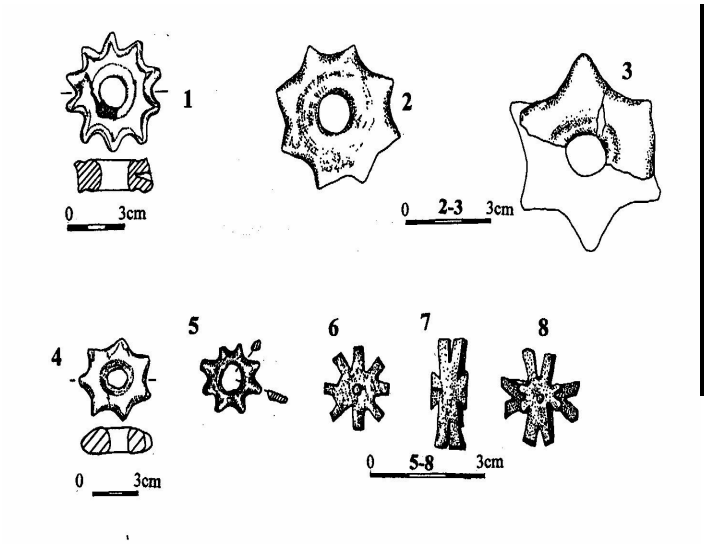

Figure 7. Stars from settlements and strongholds (1–4, 6–8) and from a grave (5): 1 – Bytom Odrzański, Lower Silesia Province, Early Middle Ages (after Moździoch, Nowacka 1991); 2 – Kruszwica, Kuyavia-Pomerania Province, Xth–XIIIth century; 3 – Giecz, Greater Poland Province, Early Middle Ages (after Kaczmarek 1998); 4 – Opole, Opole Province, 4th quarter of the XIth – beginning of the XIIth century (after Bukowska-Gedigowa, Gediga 1986); 5 – Ostrów Lednicki, Greater Poland Province, XIIth–XIIth century (after Wrzosek 1961); 6–8 – Drohiczyn, Podlasie Province, Early Middle Ages (after Musianowicz 1969), drawing by J. Didik (after Wawrzeniuk 2016).

Piotrawin), symbolically associated with the sun and fire, serving as protection against lightning, were also popular. The mould for casting a circular pendant with a cross (Sobieńczyce) was of a similar nature. The star motif is also common, known from glazed clay (Bytom Odrzański, Czersk, Giecz, Kruszwica), metal (Opole-Ostrówek, Drohiczyn), and glass specimens. The stars had between 6 and 12 arms (e.g. Giecz — 6, Drohiczyn — 8 and 12, Bytom — 10) (Figure 7). Analogues are found in Lithuania and Belarus (Drysviat; Kaczmarek, 1998, p. 557).

Pendants made of amber are known from research in the Polish regions (Wolin). An important category here are anthropo- and zoomorphic figurines (a horse, a dog, a swallow) from Gdańsk and other towns in Pomerania. Prized for its colour and 'magnetic' properties, amber was considered a purifying, protective, and healing substance (Popkiewicz 2010; Marciniak-Kajzer 2024, p. 552).

Crescent-shaped pendants, the so-called *lunulas*, which were among the most common female amulets in the Early Middle Ages, are unique. Their shape alluded to the symbolism of the moon and thus to the cycle of nature and female fertility, indicating their apotropaic and protective function. Finds of *lunulas* are known from all over Slavic areas — from Kievan Rus' to Poland and the Czech Republic — with the most frequent occurrence in women's graves, which confirms their association with the female sphere of life and beliefs. They were often made of bronze, silver, or lead, and were sometimes decorated with filigree and the niello technique, which emphasised the prestige of the owner and, at the same time, strengthened their magical impact (Małachowska



Figure 8. *Lunula* from Ocinek, near Sandomierz, XIth-XIIth century, photo M. Florek, (https://www.wczesnesredniowiecze.pl/artykul,243,niezwykle-znalezisko---lunula-z-okolic-sandomierza.html – 01.08.2025).

1988) (Figure 8). S. Małachowska interprets the *lunulas* discovered in Early Medieval settlement layers of Wolin and Kołobrzeg not only as elements of a costume, but also as peculiar amulets constantly worn by their wearers — their presence in the hamlets proves that they were not limited to the funerary sphere. She also points out that *lunula* fragments found in the context of craft workshops (e.g. Wolin) suggest local production and use in everyday life, rather than being exclusively imported from Scandinavian or Ruthenian centres (1988, pp. 94-97). Particularly interesting are her observations on the variety of forms — from simple tin pieces to richly decorated silver pendants — which may indicate their social and symbolic significance in the stronghold's space. The tradition of wearing them is interpreted by researchers as a manifestation of syncretism — alongside Christian crosses, lunulas continued to act as pagan protective amulets.

It is also important to consider whether other pieces of Early Medieval jewellery — such as rings, temple rings, earrings, or beads — were also worn for protective purposes rather than purely ornamental ones. In addition to the shiny raw material itself (e.g. bronze, silver, or glass), the shapes of these items may also have played an important role. The round and spherical shape in the Indo-European tradition was associated with the harmony of the cosmos, reproducing the cyclical nature of time and the movement of the celestial spheres, which may have carried over into Early Medieval practices (Eliade, 1961, pp. 54, 76-82).

Conclusion

Amulets in the Early Middle Ages were an extremely important element of symbolic culture and everyday magical-religious practice in the lands of contemporary Poland. Their presence in settlement layers indicates that they functioned in various rituals. Their function was multi-layered, ranging from ornamental or status-defining to magical and symbolic. Their social, workshop, magical, or belief-related aspects are all emphasised. Their prevalence in trade centres and strongholds, which testifies to the wide exchange of ideas and symbols

within the culture of Early Medieval Western Slavdom, is also significant.

In the realities of the Early Middle Ages, protective artefacts were a material way of dealing with the fear of illness, sudden death, or attack by supernatural forces. They were not only 'magical tools' but also signs of belonging to a community and participating in the cosmic order. Sharpness, noisiness, and brilliance were therefore not only physical characteristics of these items, but, above all, semiotic codes that allowed the people of the Early Middle Ages to 'tame' and balance the chaotic world in which they lived. Each of these qualities had both a physical and a spiritual dimension: cutting separated good from evil, sound restored balance between the human world and the supernatural realm, and light symbolised life and the presence of the sacred. These objects transcended their utilitarian function, becoming artefacts of cosmic order and participants in ritual practice.

References

Barthes, R. (1964). Mythologies. Éditions du Seuil.

Bąbel, J. (1980). Kult topora w neolicie ziem polskich. Wiadomości Archeologiczne, 45(1), 3–42.

Biegeleisen, H. (1929a). U kolebki. Przed ołtarzem. Nad mogiłą. Nakładem Instytutu Staurofigjańskiego.

Biegeleisen, H. (1929b). Lecznictwo ludu polskiego. Polska Akademia Umiejętności w Krakowie.

Brückner, A. (1895). Kazania średniowieczne, cz. II. Rozprawy Akademii Umiejętności, Wydział Filologiczny, Serya II, 9, 317–390.

Buchowski, M. (1986). Magia. Jej funkcje i struktura. Wydawnictwo Naukowe UAM.

Bukowska, J. (1958). Pisanki polskie z X–XIII wieku. Polska Sztuka Ludowa, 2(1), 45–49.

Burszta, W. J. (2004). Tajemnice kultury – zagadka daru. In A. Grzegorczyk, J. Grad, & R. Koschany (Eds.), Fenomen daru (pp. 21–31). Wydawnictwo Naukowe UAM.

Burszta, W. (2005). Społeczność daru i dar w społeczeństwie. In W. Dzieduszycki & J. Wrzesiński (Eds.), Do, ut des – Dar, pochówek, tradycja. Funeralia Lednickie. Spotkanie 7 (pp. 17 –24). Stowarzyszenie Naukowe Archeologów Polskich.

Bylina, S. (1992). Kazania w Polsce średniowiecznej. Kieleckie Studia Historyczne, 10, 13–35.

Czarnowski, S. (1956). Kultura religijna ludu wiejskiego polskiego. In Dzieła (Vol. 1, Studia z teorii kultury, pp. 88–107). Państwowe Wydawnictwo Naukowe.

Darkevič, V. P. (1961). Topor kak simvol Peruna w drevnorusskom jazyčestve. Sovetskaja Arkheologija, 5(4), 91–101.

Dowiat, J. (1985). Pogląd na świat. In J. Dowiat (Ed.), Kultura Polski średniowiecznej X–XIII (pp. 169–192). Państwowy Instytut Wydawniczy.

Dzieduszycki, W., & Kupczyk, M. (1993). Gopło. Przyroda i człowiek. Polska Akademia Nauk.

Engelking, A. (2000). Klątwa. Rzecz o ludowej magii słowa. Oficyna Naukowa.

Eliade, M. (1959). The Sacred and the Profane: The Nature of Religion. Harcourt, Brace & World.

Eliade, M. (1961). Images and symbols: studies in religious symbolism. Harvill.

Eliade, M. (1963). Myth and Reality. Harper & Row.

Gardeła, L. (2014). Scandinavian Amulets in Viking Age Poland. Fundacja Rzeszowskiego Ośrodka Archeologicznego; Instytut Archeologii (Uniwersytet Rzeszowski); Oficyna Wydawnicza Zimowit.

Geremek, B. (1985). Człowiek i czas: jedność kultury średniowiecznej. In J. Dowiat (Ed.), Kultura Polski średniowiecznej X–XIII (pp. 432–482). Państwowy Instytut Wydawniczy.

Gieysztor, A. (1982). Mitologia Słowian. Wydawnictwa Artystyczne i Filmowe.

Gołębiowski, Ł. (1830). Lud polski. Jego zwyczaje i zabobony. A. Kaczurba.

Hołubowicz, W. (1956). Opole w wiekach X–XII. „Śląsk".

Jaguś, J. (2000). Synkretyzm pogańsko-chrześcijański w świetle źródeł pisanych i archeologicznych na ziemiach polskich w wiekach średnich. Zeszyty Ośrodka Wychowania, 55(3–4), 106–114.

Jaguś, J. (2003). Uwagi na temat wymowy magicznej średniowiecznych amuletów i ozdób na ziemiach polskich. Annales Universitatis Mariae Curie-Skłodowskiej, Sectio F, 58, 7–24.

Kaczmarek, J. (1998). Wczesnośredniowieczne przedmioty szkliwione związane z magią z Kruszwicy. In H. Kóčka-Krenz & W. Łosiński (Eds.), Kraje słowiańskie w wiekach średnich. Profanum i sacrum (pp. 380–390). Poznańskie Towarzystwo Przyjaciół Nauk.

Kajkowski, K. (2020). Jajo i pisanka w świecie przedchrześcijańskich wyobrażeń religijnych. In M. Szymczyk & A. Jobke-Fus (Eds.), Myśliborska grzechotka – pisanka, zabawka, przedmiot, instrument? (pp. 29–88). Muzeum Pojezierza Myśliborskiego.

Kajzer-Marciniak, A. (2024). Amulety, talizmany, ofiary zakładzinowe i inne materialne świadectwa wykorzystywania magii przez średniowiecznych mieszkańców ziem polskich. Zeszyty Wiejskie, special issue, 547–562.

Kaźmierczyk, J. (1990). Kamień w kulturze Ostrowa Tumskiego we Wrocławiu w wiekach X–XIII. „Volumen".

Karwot, E. (1955). Katalog magii Rudolfa. Źródło etnograficzne XIII wieku. Zakład im. Ossolińskich „Ossolineum".

Kieckhefer, R. (2001). Magia w średniowieczu. Towarzystwo Autorów i Wydawców Prac Naukowych "Universitas".

Kostrzewski, J. (1962). Kultura prapolska (3rd ed.). Państwowe Wydawnictwo Naukowe.

Kowalczyk, E. (1968). Wierzenia pogańskie za pierwszych Piastów. Wydawnictwo Łódzkie.

Kowalewski, J. (2005). Ludyczne cechy słowiańskiej wymiany darów we wczesnym średniowieczu. In W. Dzieduszycki & J. Wrzesiński (Eds.), Do, ut, des – Dar, pochówek, tradycja. Funeralia Lednickie. Spotkanie 7 (pp. 35–41). Stowarzyszenie Naukowe Archeologów Polskich.

Kowalski, A. (1998). Leksykon znaki świata. Omen, przesąd, znaczenie. Wydawnictwo Naukowe PWN.

Leciejewicz, L., Łosiński, W., & Tabaczyńska, E. (Eds.). (1961). Kołobrzeg we wczesnym średniowieczu. Zakład Narodowy im. Ossolińskich.

Łęga, W. (1930). Kultura Pomorza we wczesnem średniowieczu na podstawie wykopalisk. Zakład Narodowy im. Ossolińskich.

Łuka, L. J. (1973). Wierzenia pogańskie na Pomorzu Wschodnim w starożytności i we wczesnym średniowieczu. Zakład Narodowy im. Ossolińskich..

Małachowska, S. (1988). Wczesnośredniowieczne zawieszki półksiężycowate znalezione na terenie ziem polskich. Archeologia Polski, 43(1–2), 37–127.

Mansikka, V. J. (1922). Die religion der Ostslaven I. Quellen. FFC No. 43. Suomalainen tiedeakatemia.

Moszyński, K. (1967). Kultura ludowa Słowian (Vol. 2, Kultura duchowa, Part 1, 2nd ed.). Warszawa: Grafika Usługi Wydawnicze Iwona Knechta.

Olszewski, M. (2002). Świat zabobonów w średniowieczu. Studium kazania „O zabobonach" Stanisława ze Skarbimierza. Semper.

Piekarczyk, S. (1987). W średniowiecznej rzeczywistości. Iskry.

Popkiewicz, E. (2010). Bursztyn w wierzeniach średniowiecznych ludzi. In M. Bogacki, M. Franz, & Z. Pilarczyk (Eds.), Religia ludów Morza Bałtyckiego. Stosunki polsko-duńskie w dziejach. Mare Integrans (pp. 272–281). Wydawnictwo Adam Marszałek.

Rabiega, E. R. (1949). Współczesne i przedhistoryczne zabawki gliniane w Polsce. Z otchłani wieków, 18 (7–8), 116–119.

Seweryn, T. (1947). Polskie zabawki ludowe. Polska Sztuka Ludowa, 3(6), 163–178.

Seweryn, T. (1957). Zabawki ludowe jako odbicie zwyczajów, obrzędów, magii i legend. Prace Społeczne Ludności, 11(1), 3–20.

Siemianowska, E. (2008). Wczesnośredniowieczne grzechotki i pisanki w strefie przebiegu szlaku lądowego z Rusi na Pomorze. In P. Kucypera & S. Wadyla (Eds.), Kultura materialna średniowiecza w Polsce (pp. 67–84). Wydawnictwo Naukowe Uniwersytetu Mikołaja Kopernika.

Słowińska, A. (2020). O niezwykłej mocy zwykłego jajka. In M. Szymczyk & A. Jobke-Fus (Eds.), Myśliborska grzechotka – pisanka, zabawka, przedmiot, instrument? (pp. 89–105). Muzeum Pojezierza Myśliborskiego.

Siemianowska, S., Pankiewicz, A., Sadowski, K., Pawlicki, J.K. (2023). W kwestii techniki wykonania szkliwienia wczesnośredniowiecznych pisanek-grzechotek ze Śląska. Przegląd Archeologicznym, 71, 243-270. DOI: https://doi.org/10.23858/PA71.2023.2995.

Ślusarski, K. W. (2004). Wczesnośredniowieczne pisanki i grzechotki gliniane z ziem polskich. Próba typologii. In Z. Kobyliński (Ed.), Hereditatem cognoscere. Studia i szkice ofiarowane Profesor Marii Miśkiewiczowej (pp. 79–110). Instytut Archeologii Uniwersytetu Warszawskiego.

Thomas, W. I., & Znaniecki, F. (1976). Chłop polski w Europie i Ameryce (Vol. 1, Organizacja grupy pierwotnej). Ludowa Spółdzielnia Wydawnicza.

Tomicki, R. (1981). Religijność ludowa. In M. Drozd-Piasecka (Ed.), Etnografia Polski. Przemiany kultury ludowej (Vol. 1, pp. 29–70). Zakład Narodowy im. Ossolińskich. Wydawnictwo Polskiej Akademii Nauk.

Tomicki, R. (1983). Magia i mitologia w kulturze ludowej (Rozważania preliminarne). Rocznik Muzeum Etnograficznego w Krakowie, 8, 7–24.

Urbańczyk, S. (1991). Dawni Słowianie. Wiara i kult. Ossolineum, Polska Akademia Nauk, Komitet Słowianoznawstwa.

Wach, J. (1961). Socjologia religii. Książka i Wiedza.

Wartołowska, Z. (1962). Oprawka rogowa z Wiślicy. Światowit, 24, 485–490.

Wawrzeniuk, J. (2016). Magia ochronna we wczesnym średniowieczu na ziemiach polskich. Wydawnictwo Naukowe Uniwersytetu Kardynała Stefana Wyszyńskiego w Warszawie.

Wierciński, A. (1997). O pojęciu magii. In A. Wierciński (Ed.), Szkice z antropologii religii (pp. 103–109). Nomos.

Wróblewski, T. (1967). Demony i wyobrażenia demoniczne. In J. Burszta (Ed.), Kultura ludowa Wielkopolski (Vol. 3, pp. 237–255). Wydawnictwo Poznańskie.

EARLY MODERN PLAGUE AMULETS

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Summary
Outbreaks of plague were regular occurrences in Europe during the XVIth and XVIIth centuries. Limited contemporary understanding of disease origins and the lack of effective means of pharmaceutical control meant that both members of the medical professions and the general population relied, to some extent, on the supposed apotropaic and prophylactic properties of amulets. This paper presents an overview of the amulets used specifically against plague in early modern times, based upon a review of (mostly English language) contemporary literature and surviving items of material culture. Some materials, then in common medicinal use and often credited with alexipharmic properties, the ability to protect the heart and strengthen the body overall, were commandeered as amuletic materials directed against plague, but without further extensive comment. These included unicorn horn, bezoar stones, emerald (smaragdus), amber and hyacinth (red zircon). Belief in the power of sympathy underlay the use of poisonous materials to intercept and concentrate toxic plague miasmas before they could invade the body and infect the wearer with the disease. Live spiders enclosed in walnut shells, liquid mercury (quicksilver) in hazel nuts, dried toads and arsenic-based plague cakes fall into this category of amulet. Native arsenic and the arsenic sulfides, Orpiment and Realgar, were used in a variety of plague cake recipes. Additional ingredients incorporated into the various recipes included herbal ingredients (e.g. Camphor, Euphorbium, Zedoary, Saffron), toads, quicksilver, Rose water and precious stones, all bound together with egg white and Gum Tragacanth. The first decade of the XVIIth century saw the emergence of a brief pamphlet war concerning the efficacy of arsenical amulets. Francis Herring noted that the corrosive properties of the element caused strong dermatological reactions in some wearers of bags containing arsenic over the heart and questioned the logic in using poisonous materials to treat plague, while Peter Turner argued in defense of the amulets. The alchemist, Oswald Croll, advocated the use of Paracelsian zenexton and provided recipes for several arsenic and quicksilver-based preparations. The resulting cakes were either worn around the neck enclosed in special metal 'instruments', or in red silk bags; if the bag material turned from red to blue, it indicated that the cake was being effective at intercepting and concentrating the plague toxins – the bag was then to be discarded and the cake rehoused in a new one. Textual amulets included the inverted Abracadabra triangle, according to Daniel Defoe, and in Catholic German-speaking regions *Pestblätter* or Plague Leaves were used. Wood-block prints or etchings published on paper or silk, these versatile portable amulets featured both text and images. Common themes in XVIIth and XVIIIth century examples include the use of the patriarchal cross embellished with an acrostic of characteres representing the specifically anti-pestilential Zacharias Blessing. Further targeted representatives of contemporary blessings and rituals were accompanied by additional religious imagery; intercessory plague saints such as Sebastian, Roche and John Nepomuk are well represented iconographically and the purpose of the print is often indicated by the phrases *Contra Pestem* (against plague) and *Contra Praestigia* (against magic).

Key words: Plague, Abracadabra, Arsenic, Zenexton, Pestblätter

Plague

Plague pandemics have been a source of fear and anxiety since the first documented example; the 'Justinian Plague' began in the 6th and continued through to the mid-eighth century. A second pandemic wave began in 1347 (the 'Black Death': 1348-1349 in England). In Tudor and Stuart times, England periodically experienced surges of plague, variously in its bubonic, pneumonic and septicaemic forms, with outbreaks taking place in 1544-6, 1563-5, 1577-9, 1592-4, 1603-5, 1624-6, 1636-7, and 1665-7. Unfortunately there was no coherent, effective explanation for the causes of infection; contemporary ideas included (1) the notion that plague was a punitive manifestation of the wrath of God in response to the sin of mankind, (2) that astrological events in the heavens (macrocosm) influenced the health and well-being of the human body (microcosm), (3) that 'seeds of affliction' could be passed by contact from one person to another, and (4) that bad or pestilential air (miasma) brought plague with it. The various proposed means of treatment relied largely on the supposed hidden or occult virtues of a wide range of herbal materials, supplemented by certain ingredients of zoological and geological origin. State intervention comprised a communal anti-miasmatic defense scheme designed to combat any invading pestilential airs (Anonymous, 1578?).

Thus, the contemporary state of medical knowledge and therapeutics meant that there was no effective cure for the plague, and very little hope of ameliorating the symptoms. The use of amulets was one approach used by a desperate population to find some means of protection against the disease.

Amulets

William Kemp (fl. 1660s) probably lived in Holborn and was witness to the horrors of the plague that was overtaking his city. His assessment (Kemp, 1665) was:

> Of all Diseases whereunto the Body of Man is subject, the Plague is one of the most venemous and most infectious, peculiarly opposite to the heart, consuming the Vital Spirits, destroying the natural heat, and corrupting the humours, usually attended with a Fever, and accompanied with variety of most grievous and pernicious symptomes, and most commonly ending in Death. (p. 1).

Firmly convinced that one of the major causes of the disease was a visitation by God on a sinful world, he questioned the efficacy of 'Coelestial and Supernatural Medicines' and framed his potential solution to the problem in medicinal allegory: "Hearty prayer availeth much, and is the most effectual Cordial, the best Preservative, the most excellent Restorative, the most soveraign Antedote, the most powerful Amulet" (Kemp, 1665, p. 7).

His words must have resonated with society as amulets were a common part of everyday culture during the XVIIth century. A variety of medicinal amulets was in common use and worn in order to strengthen or corroborate the body in times of infection, to maintain the strength of the heart, or to afford general protection, including against the evil forces and magic believed by some to be sources of personal affliction. Many of the amulets indicated specifically against plague are mentioned only briefly in early modern texts and often include materials to which anti-poisoning virtues were commonly ascribed – indeed, these materials were often incorporated as therapeutic simples into more complex medicinal remedies against the plague and other conditions believed to be caused by poisons entering the body. The London physician, Steven Bradwell (fl. 1620s), for example, lists unicorn's horn (narwhal horn or mammoth tusk), bezoar stone (an intestinal concretion from goats and other animals), and smaragdus or emerald as being used amuletically against the Pest – with the caveat that he has no confidence in their effectiveness (Bradwell, 1625). Robert Lovell (1661) adds amber and hyacinth or jacinth (red zircon) to the list of amuletic materials used in time of plague, but without further explanation.

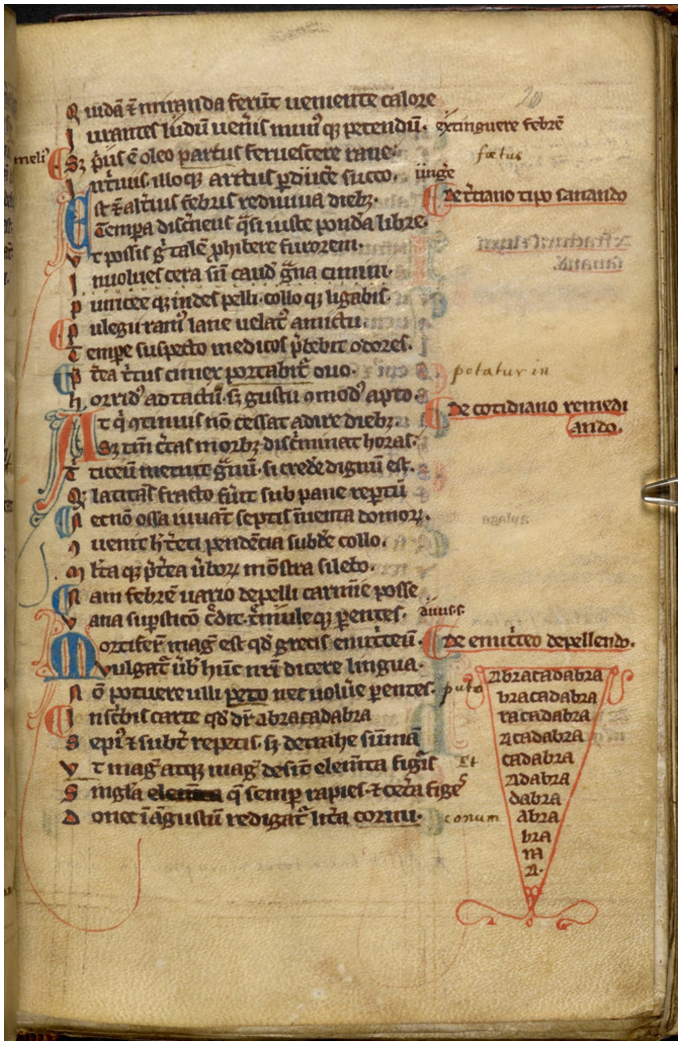

Figure 1. Inverted Abracadabra textual amulet. Serenus Sammonicus, Liber medicinalis, Canterbury, XIIIth century. From the British Library Archive. Copyright British Library Board, Royal ms 12 e xxiii f020r.

Abracadabra

Abracadabra is a word of disputed origin. It first appears in a didactic medical poem entitled *Liber Medicinalis* by Serenus Sammonicus (died 212), a tutor to the IIIrd century Roman Emperor, Caracalla (188-217). Sammonicus recommended that the word be worn in inverted triangular form (Vollmer, 1916), as depicted in a XIIIth century manuscript of his work produced in Canterbury, as an amulet against malaria (Figure 1) (British Library, Royal MS 12 E. XIII fol. 20r). Clearly, its use had expanded by the XVIIth century to include prophylaxis against plague. Although a work of fiction, Daniel Defoe's *A Journal of the Plague Year*, first published in 1722, is heavily reliant on the personalities and practices of the Great Plague of London in 1665-1666. Defoe refers to the use of abracadabra amulets and the word itself being posted prophylactically on the doors of houses but is caustic in his assessment of their worth (Defoe, 1722):

> I might spend a great deal of time in my exclamations against the follies, and indeed the wickedness, of those things, in a time of such danger, in a matter of such consequences as this, of a national infection. But my memorandums of these things relate rather to take notice only of the fact, and mention only that it was so. How the poor people found the insufficiency of those things, and how many of them were afterwards carried away in the dead-carts and thrown into the common graves of every parish with these hellish charms and trumpery hanging about their necks. (p. 40).

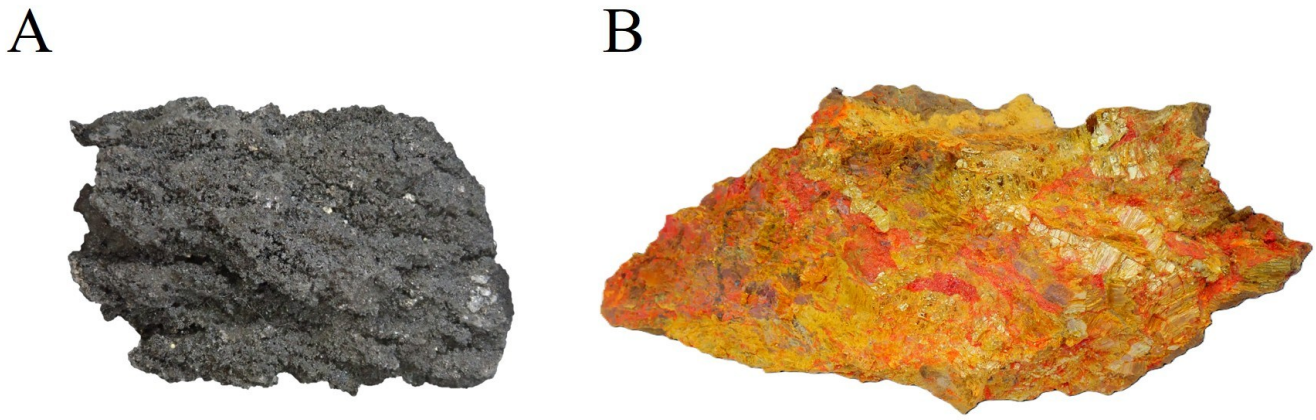

Figure 2. Different forms of arsenic. A) Native mineral (As); B) Orpiment (A_s2S_3) with bands of red Realgar (A_s2S_3). Author's collection and author's photographs.

Fighting poison with poison : application

Rather more popular and certainly more common in written accounts, was the use of various poisonous materials as protective amulets against the plague and the fevers associated with infection. These included the use of arsenic, liquid mercury (quicksilver), dried toads and live spiders enclosed in walnut shells.

The Danish astronomer, Tycho Brahe (1546-1601), was convinced that keeping spiders shut up in walnut shells was an effective treatment for all manner of fevers. In a letter to his one-time tutor, Anders Sorensen Vedel (1542-1616), Brahe explained that the walnut with the spider was worn around the neck until the spider died, at which point a cure was expected (Duffin & Console, 2024). He called it a magnetic remedy – the poisonous spider attracted any poison to itself, diverting the toxins away from the patient. This approach had been used since the time of Galen to provide protection against agues or malaria. Sir Kenelm Digby (1603-1665) explained that the spider drew to itself "contagious airs" that would otherwise infect the bearer (Digby, 1669, p. 176).

Arsenic was a common component of anti-pestilential amulets. Often utilised 'as geological' medicinal simple, it was available in several forms – native arsenic, or as the yellow sulphide (*Auripigmentum* or orpiment) and the red sulphide, Realgar (Figure 2). According to Oswald Croll (c. 1563-1609), an alchemist at the court of Rudolf II (1552-1612) in Prague, the arsenical amulet was first invented by the Italian physician Jacopo Berengario da Carpi (c. 1460- c. 1530), probably more famous for introducing the use of mercury in the treatment of syphilis (Croll, 1670, p. 136).

Several early modern authors refer to a recipe for an amulet ascribed to Pope Adrian VI (1459-1523): "Take Arsenick two ounces, *Auripigmentum* one ounce, make little tablets thereof with the whites of Eggs, and Gum Dragacanth, and hang them about the neck against the heart" (Anonymous, 1652, p.97).

A very similar receipt is given by Philalethes (1722, p. 22). Alternative recipes for these plague cakes are provided by Kemp (1655):

> Take of white Arsenick two ounces, white Dittany and English Saffron, of each two drams, of Camphire and Euphorbium of each one dram, beat them into Powder, and with Gum Arabick dissolv'd in Rose-water, make them into little Cakes about the breadth of a Shilling, and the thickness of two half Crowns, and dry them in the Sun, or in an Oven after the Bread is taken out.
>
> Take of white Arsenick two ounces, Zedoary two drams, Saffron one scruple, Camphire half a dram; beat all into powder, and with Gum Arabick dissolv'd in Rose-water, as aforesaid, make it into Cakes.
>
> Take […] of white and yellow Arsenick of each half an ounce, the powder of dried Toads two ounces, Mercury sublimed, Wheat Flowre, the Roots of Dittany, of each three drams, Saffron, the Fragments of Jacynth and Emerald, of each one scruple, make them all into powder, and with Gum Dragon dissolved in Rose-water, make them into Cakes, and dry them as aforesaid. (p. 63).

After giving a warning not to eat the cakes, Kemp explains that they should be sewn into small silk bags and suspended by a ribbon from the neck so that it lies around the middle of the chest.

Philalethes (1722) provides another receipt:

> Take of Sapphires, Emeralds, Hyacinths, Rubies, Red and White Coral, of each one Dram; of Saffron, a Scruple; of Pearls, half a dram; White Arsenick, two Drams; Ambergrease, six Graines; dry'd Iris roots, half and Ounce; burnt Hartshorn, a Dram; Orpiment, half an Ounce. (p. 22).

Clearly items for a wealthy client, cakes made from ground and mixed precious stones, together with other expensive ingredients, these arsenic-based amulets relied heavily on the cordial, restorative, and tonic properties of their constituent parts (Duffin, 2013).

Arsenic was well known for its toxic properties, being highly corrosive. Despite this, it was used extensively in both topical medicines and those taken internally for a considerable diversity of conditions. Prescribed in a wide range of dosage forms it was employed, for example, against abnormal growths (excrescences), as a depilatory (hair removal), to smooth growths in nails, and in the treatment of phthiriasis (eyelid infestations by crab lice), coughs and respiratory conditions, anal swelling and the bringing up of pus. Several authors note that severe side effects were noticed in some patients. Symptoms included feeling faint and light-headed (lipothymie) sometimes resulting in syncope (passing out). One contemporary assessment (Lovell, 1661) was that:

> Arsnick is not the least among poysons, being sharp and adverse to the balsame of life, insomuch that not only inwardly, but used outwardly it often produceth horrid symptomes. H. sc: convulsions, stupidity in the hands and feet, cold sweats, palpitations and faintings of the heart, vomiting, corrosions and paines in the intestines, thirst, and unquietness. (p. 56).

Wearers of arsenic-based amulets were not immune from side effects. Some individuals noted that the contra-indications were slow to appear and only subsided when the amulet was removed. Others developed fevers that led, in some cases, to death. The elevated body temperatures said by some to facilitate the release the virtues inherent in the amulets (Le Medde, 1665, p. 6) exacerbated the problems of side effects in others; the Salernitan translator, physician and bishop, Alfanus I (died 1085) is recorded as having died as the result of 'earnestly playing' tennis whilst wearing an arsenic amulet (Anonymous, 1652, p. 100).

Explanations for these effects were also varied. Robert Boyle (1684, p.36) envisaged effluvia rising from the amulet penetrating the interior of the body through pores in the skin. The writer of *A Treatise concerning the Plague and the pox* (Anonymous, 1652, p. 99) writes of "poysonous vapours" from the arsenic being drawn into the body. Since the *raison d'être* for these vapours is to seek out and destroy the toxic agents causing the plague, if they do not encounter any (as in the case of a healthy person who is not infected) "with whom to wrestle", the vapours "must needs imprint a malignant and venomous quality on the spirit and heart, most adverse and pernitious to nature"; if there is "no contrary Poyson to make conflict with", the arsenical vapour does not "perish in the conflict betwixt them" but, unopposed, instead assaults the natural, healthy faculties of the patient. Thus, those wearing an arsenical amulet around their neck "should be as safe, as if he had purchased a protection from the King of Heaven" but, instead, is actually experiencing Job's embrace or Judas' kiss! (Anonymous, 1652, p. 100).

Quicksilver or liquid mercury was another poisonous material esteemed as a valuable amulet against plague. It occurs in lists of amuletic materials (e.g. Le Medde, 1665, p.6; Cock, 1665, p. 14) as well as being the subject of considerable individual focus. Kemp (1665, p. 64), for example, gives an account of the supposed origins of its use. He indicates that Italian women used to wear quicksilver enclosed either in a nut or a quill, dangling between their breasts in order to prevent drying up of their milk. During times of plague it seems that these women survived the infection preferentially as an additional benefit. This led to the wearing of quicksilver amulets during time of plague, supposedly with beneficial results. If the force of the plague was sufficient overcome the protective power of the quicksilver, it was said that the nut broke and the liquid mercury spilled out. He gave instructions as to how to make the amulet: "Bore a hole in a Filberd or Hazel-nut, and with a Needle pick out the kernel, and fill the shell with Quick-silver, and stop the hole with waxe, and wear it in your bosome, sewed in a little purse or bag of silk" (Kemp, 1665, p. 65).

The use of toads as amuletic protection against plague has been studied in detail by others elsewhere (Baldwin, 1993). Suffice it to say here that the animals were believed to work either by the power of sympathy, drawing the poison to itself from the prospective patient, or by blocking the miasmas causing the disease. There were two interesting and powerful supporters of the use of toads in this way. Robert Boyle repeated the observations of Johann Zwelfer (1618-1668) concerning the experiences of the Chief Physician of Moravia that Toad Troches were effective prophylactics (Boyle, 1684):

> This learned man whom he [Zwelfer] extols for a great Physician and Philosopher; assures him, that having prepared some Trochischs of Toads according to *Helmonts* way, (which I remember I also was solicitous to prepare, but had not occasion to make tryal of their vertue,) he not only found, that being worn as Amulets they preserved him and all his Domesticks, and Friends, from the Plague (though he daily visited the infected) but that having caused these Trochischs to be put upon the Plague sores of several persons, none of them died, but the venom of the pestilential Carbuncles was thereby so weakened that the ulcers were afterward easily cured by vulgar remedies. (pp. 35-36).

Sir Isaac Newton (1643-1727) wrote about the efficacy of wearing toad-based lozenges in a recently auctioned

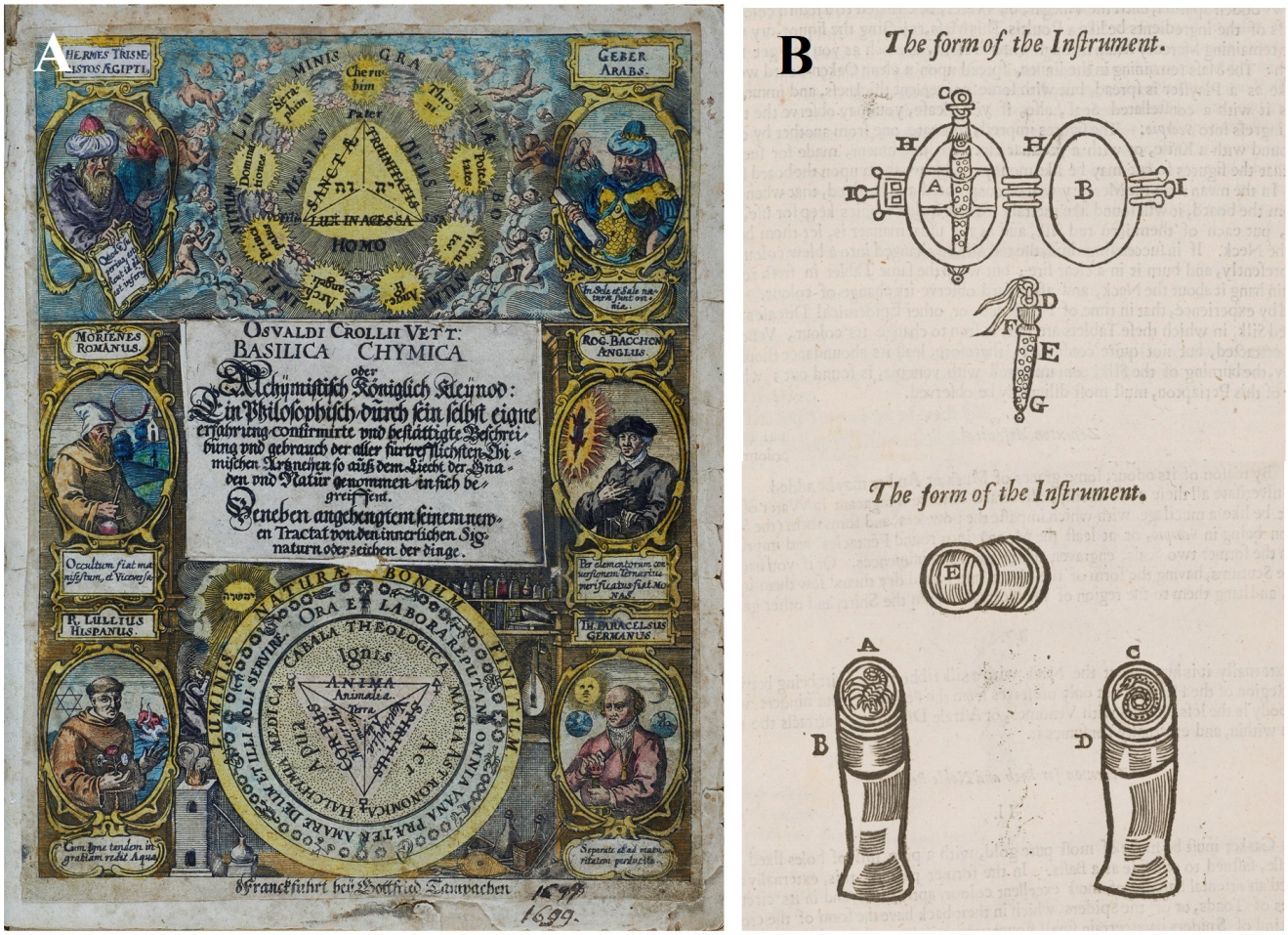

Figure 3. A) Title page of Croll (1629) *Basilica chymica*. Public domain; B) *Zenexton* from Croll (1670). Wellcome Collection, public domain.

set of notes on Van Helmont's 'De Peste' (Bonhams, June 2020):

> The best [remedy] is a toad suspended by the legs in a chimney for three days, which at last vomited up earth with various inmsects in it, onto a dish of yellow wax, and shortly after died. Combining powdered toad with the excretions and serum made into lozenges and worn about the affected area, drove away the contagion and drew out the poison.

Controversy

Not everyone was convinced of the effectiveness of these poisonous amulets. Cook (1665, p. 14) notes that whilst some "have written and argued (not without cause) against Deleterious and poysonous Amulets , made of Toads, Arsenick, Quicksilver", they neverthess represent "a manifest truth in common practice". Drage (1665, unpaginated) is scornful that "An ignorant Physitian I know, layes it [a quicksilver amulet] under the Pillow in a quill". Others argued that death from plague occurred in some patients despite their wearing supposedly protective amulets (Bradwell, 1625, p. 20).

These opposing points of view came to a head in an exchange of opinions featured in medical pamphlets published in 1603/4. The altercation involved two well-known members of the London medical fraternity in early Stuart times: Francis Herring (died 1628) and Peter Turner (1542-1614). A native of Nottingham, Herring studied at Cambridge and was heavily committed to the work of the Royal College of Physicians of which he was a Fellow and for which he served at various times as censor. Peter Turner was the son of the famous botanist, William Turner (1509/10-1568), studied at Cambridge and Heidelberg and was appointed as physician to St Bartholomew's hospital. He also served as a member of parliament and was physician to Sir Walter Raleigh (1552 -1618).

Herring was the first to publish his opinion (Herring, 1603), reprinted with additions, but no changes to the text concerning amulets, in 1625, 1636, 1641 and 1665. Herring focussed on the problem of arsenical amulets. His argument runs effectively as follows: (1) Rather than being helpful as preservatives against the plague, arsenic amulets are positively dangerous; (2) arsenic is a poison; when worn close to the skin it sends out poisonous fumes which enter the body; (3) these fumes are malignant and venomous; (4) according to Galenism

these fumes weaken the body; (4) Galen and other medical authorities never used such poisons to preserve against plague, so the use of arsenic amulets is contradictory to received wisdom; (5) he appeals to the writings of other authors who testify and give case histories of patients experiencing the deleterious effects of wearing such amulets (for example, Theophrastus who stated that Pericles had a 'crazed brain' as a consequence of wearing an unspecified amulet); (6) He adds the experience of "some London Physitians, who have seene foule holes made in the breast of those that have worne them, and observed diverse to die as well as others, who have religiously carried them about their neckes" (Herring, 1603, p.12).

Peter Turner quickly responded (Turner, 1603). His counterargument ran as follows: (1) arsenical materials, quicksilver, toads and adders are, indeed, poisonous, but that does not make them medicinally ineffective; (2) he appeals to the contemporary belief that, applied both internally and externally, arsenic was used to treat wens, orpiment to treat respiratory problems, toads to encourage urination and as styptics (to prevent bleeding), and adders were a vital component in the highly popular Venice treacle; (3) care should be taken when wearing the plague cakes close to the skin – wrap them in a bag; (4) if blisters do appear, treat that symptom with medicinal oils, wrap the arsenic in a thicker cloth or remove the amulets altogether; (5) even some materials which are not poisonous (e.g. garlic and mustard) cause blistering to the skin, so that symptom is insufficient to identify a poisonous material; (6) arsenic does not poison the spirit of man – that is a prejudicial statement; (7) Native arsenic and orpiment are not poisonous materials, but are merely corrosive; (8) There is a whole range of diseases for which arsenic is prescribed (e.g. plague, pleurisy, cankers, fistulas, Noli me tangere); (9) if arsenic is banned, should we not also ban corrosive plant -derived substances?

In response, Francis Herring (Herring, 1604) reiterated his arguments by re-publishing his 1603 tract a year later and expanding his discussion to address the points raised by Peter Turner. Limitations of space preclude a detailed analysis of his rejoinders, but his conclusion is "I affirme confidently, that such a medicine of poisons applied outwardly to the body, hath no manifest, probable or demonstratiue reason, whereby we may be persuaded that they haue so miraculous efficacie against the Plague" (Herring, 1604, p. 4).

Zenexton

Probably the most complex amulets, involving many of the materials mentioned above, are the *Zenexton*, ascribed to the rather iconoclastic itinerant XVIth century physician, Paracelsus (1493-1541). The details of these amulets are furnished in the writings of one of his disciples, the alchemist Oswald Croll (1563-1609). He indicates that *Zenexton* required 18 dried toads, the first menstrual blood of young maidens, white arsenic, orpiment, dittany roots, pearls, coral and oriental emeralds. The small cakes made from these ingredients were encased in metallic 'instruments' which were hung from the neck. Two varieties were recommended, depending on the wealth of the patient, the best quality being made of gold with additional precious stones mounted on them (Croll, 1670; Figures 3A, B).

Paracelsus invoked the supposed interactions between the macrocosm and the microcosm to account for plague; the evil intentions and activities of mankind (the microcosm), he believed, so poisoned the heavens (the macrocosm) that their response was to reflect that poison back onto mankind by star-mediated infection (Gunnoe, 2019; Duffin, 2022). Such personally-directed, astrally-mediated power from the heavens necessitated specialised means of intervention. The *Zenextons* also harnessed astrological power themselves. Croll indicated that a serpent and a scorpion were to be engraved on the instruments at astrologically auspicious times. Stopping the nostrils when pulverising the toads and adding musk or amber to the mixture was recommended to help diminish the offensive smell emanating from the preparation. The *Zenexton* was hung by a silk cord from the neck by so that it was positioned over the heart, ensuring that it "not only preserves from the Pestilence, but hinders whereby the body is the less infected with Venomes, or Astrale Diseases". He further explains that the cakes attract "the venome from within, and externally consumes it" (Croll, 1670, p. 136).

Croll goes on to provide details for the manufacture of two further *zenexton*, one based on mercury (quicksilver) and the other combining Realgar, Orpiment and Cinnabar (ore of mercury) (Croll 1670, p. 138). Enclosed in red silk bags these amulets were to be worn around the neck. If the silk turned blue, it was a sign that the pestilential venom was being attracted to the plague cakes. Discoloured bags should be burnt to destroy the poison that had accumulated in them, and the *zenexton* put in a fresh new bag ready for a new round of use.

Pestblätter

The German word for plague is *Peste*. The use of woodblock printing in the late XIVth and early XVth centuries together with the innovation of the printing press using movable type in the mid-fifteenth century provided the means to produce printed ephemera on a relatively large scale. Amongst the products of this period of mass production are *Pestschriften* or Plague tracts, many of which were described and catalogued by Karl Sudhoff (1853-1938) in a series of publications from 1911 through to 1926. These included textual amulets known as *Pestblätter* or Plague Leaves. Examples from the XVth (e.g. Figure 4A) and XVIth centuries have received a lot of attention in the literature (e.g. Sudhoff, 1908; Heitz & Schreiber, 1901; Esser, 1999). Printed in a variety of sizes and sometimes hand-coloured, these early *Pestblätter* were relatively inexpensive portable



Figure 4. *Pestblätter.* A) XVth century example featuring St. Sebastian and St. Roche, Augsburg (Staats- und Stadtbibliothek, Augsburg); B-H feature the patriarchal cross with accompanying characteres - B) Etching on silk, Wellcome Collection 32340i; C) Woodcut, Wellcome Collection 32325i; D) Etching, Wellcome Collection 32329i; E) Woodcut coloured with gouache, Wellcome Collection 11165i; F) Engraving coloured with gouache, Wellcome Collection 11164i; G) Printed Latin charm with images of St Francis, St Ignatius, St Antony of Padua and St Francis of Solanus, folded into a paper packet (1690-1710). Wellcome Collection A666092; H) Line engraving featuring the head of St Anastasius. Wellcome Collection 586604i. All images are in the public domain.

apotropaic devices which could be carried on the person or posted in the home in a bid to secure household, familial or personal immunity from plague (Skemer, 2006, p. 223; 2010). They commonly combined religious imagery with brief prayers in Latin and German, lending a devotional aspect to their use.

Rather than summarising previous work on early *Pestblätter*, I will concentrate here on some examples from the XVIth and later centuries, matching the time period represented by the bulk of the texts consulted in this study, and which are well represented in the Wellcome Collection (Figures. 4B-H; see also Oppeker, 2008).

As Figure 4 shows, members of this collection of plague leaves comprising etchings and woodcuts on silk and paper have several elements in common. Firstly, they are centred around the cross which is depicted in a form commonly seen in the Austro-Bavarian region; the upright vertical beam or stipes has two crosspieces or patibulae, the upper of which is the shorter. This is commonly known as a patriarchal cross, archiepiscopal cross or *crux gemina*. In some cases there are roundels at the junctions of the crossbeams and stipes depicting religious scenes such as the crucifixion (Figure 4B), the Trinity (Figure 4B), and the Pietà (Figure 4D). In one case (Figure 4C), a sacred heart is in this position and contains the Greek monogram or Christogram, IHS, the first three letters of the Greek name of Jesus – iota-eta-sigma. The sacred names of Jesus (*nomina sacra*) were shortened in this way from earliest christian times.

The individual elements of the crosses are inscribed with sequences of isolated capital letters (majuscules) and symbols (crosses) known as *characteres*. These letter sequences are acrostics of contemporary liturgical formulas and blessings. With the passage of time, the significance and meaning of some of these letter sequences are now rather obscure. A notable exception is provided by the sequence '† Z † DIA † BIS † SAB † Z † HGF † BFRS', sometimes known as the Zacharias blessing. This appears in the *Geistlicher Schild* ('Spiritual Shield' – Anonymous, 1647; Figure 5 D), in which it is affirmed that, at the Council of Trent (1547):

> More than twenty bishops and generals of religious orders died of the plague. The Patriarch of Antioch advised everyone to carry the following letters, left by Saint Zacharia, Bishop of Jerusalem, with their interpretation and injunction, as a sure remedy against the plague. And since this was done, not a single person has died of the plague. And if these same letters were written over a door, all those living in that house were protected from the plague. (p. 19)

The Czech philosopher, theologian and historian, Bernard Sannig (1638-1704; Figure 5A), a Franciscan priest who taught at Prague University, helpfully provided a detailed breakdown of the meaning of the Zacharias blessing (Figure 5C) in his *Rituale Franciscanum* (Sannig, 1711). This book (Figure 5B) is a priestly liturgical manual containing details of rites for a wide range of sacraments, blessings etc. His exposition of the components of the blessing as related to protection against the plague, invoking religious imagery and themes from various Psalms, is as follows:

> **† Z †** (The Cross conquers; the Cross reigns; the Cross rules; by the sign of the Cross deliver me, O Lord, from this plague) **D** (O God, my God, drive this plague away from me, and from this place, and deliver me) **I A** (God was before heaven and earth; and God is able to deliver me from this plague) **†** The Cross of Christ has the power to drive the plague from this place and from my body) **B** (It is good to wait in silence for God's help, that he may drive this plague from me) **I Z †** (May the Cross of Christ put to flight demons, and drive away foul air and plague) **S** (I am your Salvation, says the Lord; cry out to me, and I will hear you, and I will deliver you from this plague) **A** (Deep calls to deep, and



Figure 5. A) Portrait of Bernard Sannig (1638-1704), engraving by Gerard de Groos. Public domain; B) Title page of Sannig (1756); C) Analysis of the Zacharias Blessing from Sannig (1756, p. 225), Munich, Bayerische Staatsbibliothek. Public domain; D) Title page of the *Geistlicher Schild* (Anonymous, 1647 – 1705 printing). Munich, Bayerische Staatsbibliothek. Public domain.

your voice will drive out demons; deliver me from this plague) **B** † (May the Cross of Christ, which was once the cause of shame and reproach, and is now in glory and dignity, be my salvation, and drive the Devil from this place, and foul air and plague from my body) **Z** (May zeal for the honor of God convert me before I die, and in your name save me from this plague) † (May the sign of the Cross deliver the people of God,and those who put their faith in him, from the plague) **H** (Is this how you repay the Lord, you foolish people? Pay your vows, offering him a sacrifice of praise and faith, because he is able to deliver this place, and me, from this plague; that those who put their faith in him will never be confounded) **G** (May my tongue stick in my throat and to the roof of my mouth if I do not praise you; deliver those who trust in you; in you I trust; O God, deliver me and this place in which your name is called upon,from this plague) **F** (There was darkness over the all the earth at your death, O Lord; my God, may the power of the Devil be fleeting and dark, for you came for this reason, O Son of the living God: to destroy the works of the Devil with your power, may your power drive this plague from this place and from me, your servant; and the foul air depart from me into the outer darkness) † (O Cross of Christ, defend us and drive the plague from this place, and deliver your servant from this plague, you who are kind, and merciful, and of many mercies, and true) **B** (Blessed is he who does not regard the proud, nor those who go about with lies; on the day of evil the Lord will deliver him; Lord, I have trusted in you; deliver me from this plague) **F** (God is become my refuge; because I have trusted in you, deliver me from this plague) **R** (Look upon me, O Lord my God, Adonai, from the seat of your Holy Majesty, and have mercy on me, and for the sake of your mercy, deliver me from this plague) **S** (You are my Salvation: heal me, and I will be healed; save me, and I will be saved). (Marshall, 2020, unpaginated).

Additional text and imagery may be included on the plague leaf but positioned outside the cross. The religious images include the wounds on the hands and feet of Christ and portrayals of various saints. The latter are often those closely associated with plague. Those featured in the figured examples are St Sebastian, St Roch and St John Nepomuk. Over 100 plague saints are identified in the Catholic panoply, most of whom enjoy only local fame and reverence; Sebastian, Roch and John Nepomuk are three especially highly revered and commonly depicted examples. Saint Anastasius, whose decapitated head was transported to Rome where it supposedly drove out the devil, also makes an appearance in one *Pestblätt.* Many of the examples (Figures. 4D, G, H) carry the words *Contra Pestem*, thereby identifying on of their functions, plus *Contra praestigia* ('against magic').

Thus, this group of *Pestblätter* invoked the symbolic imagery of the patriarchal cross, the crucified and resurrected Christ, other members of the Trinity, the potential intercession of closely associated holy persons and plague saints, specific anti-pestilential blessings and liturgical invocations to exercise apotropaic and prophylactic power over the all-threatening plague.

Conclusions

In the absence of a true understanding of the biological causes of disease in early modern times, interventions relied on a range of remedies commonly rooted in classical medicine and Galenic pharmacy. The seemingly incessant waves of plague that swept through nations resisted attempts at cure and mortality rates remained stubbornly high. One approach favoured by many was the use of apotropaic and prophylactic amulets in the hope that they might afford some personal protection from infection. This survey of XVIth and XVIIth writings, mostly in English, reveals contemporary use of a wide range of amuletic materials. Several authors recommended the specific use of materials believed to possess generally cordial (protecting or stimulating the heart) or corroborating (strengthening) properties as anti -pestiliential agents – things like unicorn horn, bezoar stones, emeralds, amber and hyacinth – without further explanation. The idea of 'like cures like', an application of the power of sympathy was implicit in the wearing of amulets made of poisonous materials to block plague-causing miasmas from the bearer and so intercept the poisons that sought entry into the body. These included live spiders enclosed in walnut shells, liquid mercury (quicksilver) in hollowed hazel nut shells, dried toads and arsenic. The latter material was apparently the most versatile and could be used in unmodified form or mixed with other materials to produce amuletic plague cakes for wearing around the neck. Complex arsenical recipes were reserved for specialist venom-attracting plague cakes or *zenexton.* These were enclosed in dedicated containers, often embellished with astrological symbols designed to interfere with astral disease projection from the macrocosm. Somewhat corrosive arsenical amulets often produced strong dermatological reactions in the wearer and the use of such poisonous materials raised questions as to both the wisdom and efficacy of their use. A small-scale pamphlet war between Francis Herring and Peter Turner brought these arguments to the fore in the opening decade of the XVIIth century.

An additional amuletic approach was taken by Catholic believers in German-speaking countries. Here, *Pestblätter* or Plague leaves were mass produced by engraving or wood block printing, mostly onto paper and silk. More than expressions of personal piety, these versatile, portable textual and iconographic plague amulets harnessed Christian faith, reminders of saintly

intercession, targeted blessings and ritual acrostics through the symbolic use of the patriarchal cross, associated characteres and religious images to protect against the plague.

References

Anonymous (1578?). *Orders, thought meete by Her Maiestie, and her priuie Councell, to be executed throughout the counties of this realme, in such townes, villages, and other places, as are, or may be hereafter infected with the plague, for the stay of further increase of the same*. Christopher Barker.

Anonymous. (1647): *Geistlicher Schild*. Publisher unknown.

Anonymous (1652). *A Treatise concerning the Plague and the Pox*. Gartrude Dawson.

Baldwin, M. (1993). Toads and Plague: Amulet Therapy in Seventeenth-Century Medicine. *Bulletin of the History of Medicine*, *67 (2)*, 227-247.

Bonhams (2020, June). Essential Genius. Ten Important Manuscripts for Modern Times. Bonhams : Isaac Newton Unpublished Notes on the Other Great Plague at Bonhams Important Manuscript Sale"Places infected with the Plague are to be avoided...,"

Boyle, R. (1684). *Experiments and considerations about the porosity of bodies in two essays*. Sam. Smith.

Bradwell, S. (1625). *A Watch-man for the pest Teaching the true rules of preservation from the pestilent contagion, at this time fearefully over-flowing this famous cittie of London*. George Vincent.

British Library, Royal MS 12 E. XIII, *Liber Medicinalis*.

Cock, T. 1665. *Hygieinē, or, A plain and practical discourse upon the first of the six non-naturals*. Philem. Stephens Sen., Philem. Stephens Jun., Peter Dring, Joseph Leigh.

Croll, O. (1670). *Bazilica chymica, & Praxis chymiatricæ, or, Royal and practical chymistry in three treatises*. John Starkey.

Defoe, D. (1722). *A Journal of the Plague Year: Being Observations or Memorials, Of the most Remarkable Occurrences, As well Publick as Private, Which happened in London During the last Great Visitation In 1665*. E. Nutt.

Digby, K. (1669). *Of the Sympathetick Powder. A Discourse in a Solemn Assemblyat Montpellier*. John Williams.

Drage, W. (1665). *Daimonomageia a small treatise of sicknesses and diseases from witchcraft, and supernatural causes*. J. Dover.

Duffin, C. (2013). The Gem Electuary. Duffin, C., Moody, R.T.J. & Gardner-Thorpe, C. (eds.), *A History of Geology and Medicine*. Geological Society of London Special Publication, *375* (pp. 81-111).

Duffin, C. (2022). The Emerald: a magico-medicinal stone. Barroso, M. do S., Duffin, C.J. & Martins E Silva, J.A. (eds.), *Insights into Portuguese Medical history: From the Birth of the Art of Asclepius*. Cambridge Scholars Publishing (pp. 81-178).

Duffin, C. & Console, R. (2024). The pharmaceutical contributions of Tycho Brahe (1546-1601): translations and commentary. *Pharmaceutical Historian*, *54 (1)*, 7-25.

Esser, T. (1999). *Pest, Heilsangst und Frömmigkeit. Studien zur religiösen Bewälitigungder Pest am Augsburg des Mittelalters*. Oros Verlag.

Gunnoe, C.D. (2019). Paracelsus, the Plague, and De Pestilitate. *Early Science and Medicine, 24,* 504-526.

Heitz, P. & Schreiber, W.L. (1901). *Pestblätter des XV. Jahrhunderts*. J.H. Ed. Heitz (Heitz & Mündel).

Herring, F. (1603). *Certaine rules, directions, or aduertisments for this time of pestilentiall contagion: with a caueat to those that weare about their neckes impoisoned amulets as a preseruatiue from the plague*. William Jones.

Herring, F. (1604). *A modest defence of the caueat giuen to the wearers of impoisoned amulets, as preseruatiues from the plague wherein that point is somewhat more lergely reasoned and debated with an ancient physician, who hath mainteined them by publicke writing: as likewise that vnlearned and dangerous opinion, that the plague is not infectious, lately broched in London, is briefly glansed at, and refuted by way of preface*. William Jones.

Kemp, W. (1665). *A brief Treatise of the Nature, Causes, Signes, Preservation from, and Cure of the Pestilence*. D. Kemp.

Le Medde, T. (1665). *Elixyrlogia, or, A compendious discourse wherein the eminent and effectual virtues and properties of the universal elixyr are set forth not only for the particular use of them that would prevent the contagion of the plague*. Henry Eversden.

Lovell, R. (1661). *Panzooryktologia. Sive Panzoologicomineralogia*. Jos: Godwin.

Marshall, M. (trans). (2020). *Remedium Contra Pestem – A Prayer Against Plague*. Bernardo Sannig, Romae, José Castells, 1842. Quadriga.

Oppeker, W. (2008). Das Zachariaskreuz als Pestsymbol bei Kleindenmälern. Oppeker, W. (ed.), *Klein und Flurdenkmäler – Zeugen religiöser und profaner Kultur*. St Pöltner Diözesanarchiv, 71-91.

Philalethes, E. (1722). *A Treatise of the Plague*. James Holland, Luke Stokoe, Richard Montague and John Sackfield.

Sannig, B. (1711). *Rituale Ecclesiasticum Continens Varias Absolutiones, Benedictiones, Conjurationes, Exorcismos, Ritus, ac alias Caeremonias Ecclesiasticas*. Publisher not identified.

Sannig, B. (1756). *Collectio sive apparatus absolutionum, benedictionum, conjurationum, exorcismorum, rituum et ceremoniarum ecclesiasticarum et administrationis sacramentorum*. Remondiniana.

Skemer, D.C. (2006). *Binding Words: textual amulets in the Middle Ages*. Pennsylvania State University Press.

Skemer, D.C. (2010). Deciphering a central European plague amulet, Blog Wellcome Library, 14 October 2016, https://brewminate.com/deciphering-a-central-european-plague-amulet/.

Sudhoff, K. (1908). *Deutsche medizinische Inkunabeln*. Johann Ambrosius Barth.

Turner, P. (1603). *The opinion of Peter Turner Doct: in physicke, concerning amulets or plague cakes whereof perhaps some holde too much, and some too little*. Edward Blount.

Vollmer, F. (1916). *Quinti Sereni Liber Medicinalis*. B. G. Teubneri.

A COLLECTION OF AMULET PENDANTS FROM OMAN

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Summary
This contribution presents a collection of 50 amulet pendants from Oman, dating from the mid-XXth century. The collection is remarkable in its variety of materials: among the materials are coral branches, glass bottle stoppers, pieces of bone, teeth, horns, thorns, nuts, stones, flint, and even tiny pieces of plastic. Each of these has carefully been set in silver or even gold, and often the setting is as finely decorated as regular Omani jewellery. This equal treatment of both valuable materials such as coral, and 'worthless' materials such as bone or flint, encasing them in silver and gold, raises the question as to how we are to understand these items. In this paper, I examine three aspects of the collection: modes of wearing, its material diversity, and cultural context.
How and by whom these pendants were worn, is relevant, especially in the context of jewellery. These pendants were worn strung in between the solid silver beads of heavy necklaces as worn by married women in certain regions of Oman, but also attached to headdresses, or threaded on rope to be worn by children. Incorporating them into regular necklaces places these amulets both in the domain of visible personal adornment and in regional traditions.
Next, I introduce the range of materials used, as well as their geographical provenance: the collection includes materials that have been imported as well as materials that have been sourced locally.
Using three case studies (Bohemian glass amulets, bottle stoppers and locally sourced materials), I then integrate the previous two aspects in an exploration of how studying these amulets in the specific cultural context of Oman, taking into consideration the fluidity of lived informal practices and the perceived capacities of specific materials, is vital for understanding their agency.
When studied as objects in their cultural context, this relatively small collection shows how, rather than viewing amulets as static artefacts, they may be understood as dynamic elements of social practice, reflecting varying layers of knowledge, and acting at multiple scales of human interaction.

Keywords: amulets; lived informal practices; Oman; jewellery

Introduction

This contribution introduces a collection of fifty amulet pendants from Oman, dating to the mid-twentieth century. Figure 1 provides an impression of the collection. What distinguishes this collection is the remarkable diversity of materials it comprises: coral branches, glass bottle stoppers, fragments of bone, teeth, horns, thorns, nuts, stones, and even tiny pieces of plastic. Each item has been meticulously mounted in silver, and occasionally in gold, with settings that are identical to the ornamentation of conventional Omani jewellery. The consistent use of precious metals for these settings, regardless of whether the enclosed material is valued, like coral, or seemingly mundane, like bone, invites reflection on how these objects should be interpreted.



Figure 1. Impression of the collection, showing its various types of materials.

Collection history

This reflection is further complicated by the fact that these objects are now encountered outside their original cultural context. The collection was assembled by Mirja Wark, a Dutch specialist in textiles. She collected first during her time living in Oman between 1994 and 1998, and after that, on several return trips, until 2004. Vintage silver jewellery at that time was sold widely, as local clientèle had started to prefer gold jewellery in more contemporary designs. Her focus was primarily on textiles but soon expanded into silver jewellery as well. Like many expatriates of that period, she collected both as a pastime and as a means of social engagement: expatriates began collecting traditional jewellery, and in

doing so, built networks of friends in their new environment. Upon their return home, the objects collected served as visible reminders of time spent abroad but often lost their meaning as cultural artefacts. The present collection has been registered in a basic collection file by the collector herself, which is not all that common. Few collectors created detailed inventories of their collections, and even fewer recorded information such as the vernacular names of the pieces, their uses, who would have worn them, and the meanings attributed to their materials. I purchased the collection in 2018, when it was offered for sale. It now forms part of my study collection of silver jewellery from North Africa and Southwest Asia, which serves as a starting point for research resulting in exhibitions, educational programs and publications such as this paper.

Purpose of this paper

As a result of both a lack of documentation and of publishing private collections, pieces such as those present in the collection discussed in this paper have ended up classified under the generic label of 'amulets', without further specification as to the meaning of the term or the interpretation of the individual pendants. In fact, to my knowledge only one publication discusses these particular amulets in some detail (Morris & Shelton, 1997). This situation in turn invites visual modes of classification, based on the one immediately apparent distinguishing feature: the materials from which they are made. While this is certainly relevant, I have argued before that there is more to amulets than material diversity alone (Van Roode, 2024). This paper serves to illustrate how studying a collection of amulets against their social and cultural background results in a more nuanced view on the meanings they carried for their wearers.

Methodology

I undertake this study from a comparative approach, examining the modes of wearing, the material diversity, and the cultural context of the amulets under study. Through three case studies - Bohemian glass amulets, bottle stoppers, and locally sourced materials - I integrate my findings to explore how studying these amulets within the specific cultural context of Oman and taking into account the fluidity of lived informal practices as well as the perceived properties of particular materials, is vital for understanding their agency.

Modes of wearing

I begin my attempt at recontextualising these pendants by considering how they were worn. The manner in which, and by whom, these pendants were worn is particularly relevant, especially in the context of jewellery.

Construction

As Figure 2 shows, each pendant is constructed by encasing a piece of material in silver. This is also where they get their name from: they are known in Arabic as *tarkība*, which means 'inset' or 'mounted' (Morris & Shelton, 1997, p. 106). In many cases, the casings are very carefully crafted and decorated in the same manner as conventional Omani jewellery, employing techniques such as embossing patterns into sheet silver. These patterns reflect regional styles and preferences. Omani jewellery is renowned for its regional variety and high level of craftsmanship.



Figure 2. Detail of the settings of the amulets, showing their decoration and extensive wear.

While materials such as coral and glass more often form part of jewellery in general, the treatment of bone, rock, or horn in the same way firmly places these otherwise humble materials within the domain of adornment. When we compare this mode of wearing to that of other types of amulets known from Oman, an important difference appears. Many amulets consist of undecorated leather pouches, designed to hold materials or texts known only to the creator of the amulet and its wearer. This practice is frequently observed in amulet creation: it is the secrecy and personal nature of these objects that informs their concealment, lest their efficacy be compromised (Morris & Shelton, 1997, p. 106; Bancroft & Bosza, 2018). However, the amulets that form the focus of this paper appear to have been intended for public display: they are as much adornment as they are protective. This raises the question of how they were worn.

Use in jewellery

Many of the pendants in the collection show clear signs of wear. Bails have been eroded, the patterning on the silver has worn smooth, and in some cases the casings themselves have worn thin, as can be observed in Figure 2. Such evidence suggests daily use and handling, including the movement of the pendants on a rope or against clothing, as well as unconscious touching of the pendant. This is consistent with other evidence for the use of these pieces: surviving examples of jewellery and historic photographs.

In surviving jewellery, we see that these pendants were often strung between the solid silver beads of heavy necklaces worn by married women in the northern and central regions of Oman. Notably, necklaces of this type predominantly feature pendants made of more visually appealing materials, such as branch coral, Bohemian glass pendants, or glass bottle stoppers (Morris & Shelton, 1997, p. 106, 201, 202; Forster, 2000, p. 28-30; Greffioz, 2009, p.45, 63,) Materials such as teeth, horns, or bone are less commonly found in necklaces for adults, but feature regularly (though not exclusively) in necklaces for young children (Morris & Shelton 1997, p. 107, 128, 177; Greffioz, 2009, p. 65), until they reach the age at which they go to school (Hawley, 1978). *Tarkība* also appear attached to silver head ornaments (Rajab, 1998, p. 50; Forster, 2000, p. 50; Mergenthaler, 2023, p. 110-111).

The second source, photographs of people from Oman before the 1970s, is also not without difficulties, as survivals are relatively rare. The Sultanate was not as often visited by foreigners as, for example, Egypt or the Holy Land. Although oil was discovered in the 1950s, it was from the 1970s onwards, under the reign of Sultan Qaboos (r. 1970 – 2020), that foreigners came to work in the country – and started both to collect jewellery as well as taking photos. Photos that have survived of people wearing jewellery, show them being worn by children (Oman & Zanzibar Virtual Museum – see page Silver Brass Amulets).

From the available evidence, these pendants appear to have been worn on a daily basis by women and children. That corresponds with their position in the domain of jewellery, which is reserved for women and children – Muslim men are generally not supposed to wear jewellery, much less amulets.

Materials used

Before exploring the cultural meanings ascribed to these amulets, I will first introduce the materials selected to be worn in this specific manner.

Artificial materials

The collection includes five pendants made of inscription-bearing red glass. Such glass amulets, featuring (pseudo-) Arabic script, are widely recognised across the Islamic world. These objects were manufactured in large quantities by Western companies for export to Muslim markets, capitalising on the established popularity of inscribed pendants. They were produced predominantly in red, but examples in green and blue glass are also known. I will discuss these in more detail in the first case study in this contribution.

In addition, two pendants incorporate pieces of red plastic. One is fashioned from a thin red tube segment, while the other consists of a rectangular piece of red plastic that still carries faint traces of an inscription in Western script. The latter pendant is visible in the centre of Figure 4. It is possible that the tubular segment was intended to imitate branch coral, a material historically associated with protective properties, which I will discuss below. It is equally plausible that the colour red itself was the primary factor in its selection. Red holds widespread apotropaic significance across North Africa and Southwest Asia, where it is believed to protect against malevolent forces (Van Roode, 2017), a belief shared across the Mediterranean and Central Europe.

Ten pendants are made from glass bottle stoppers. These stoppers have been inverted in their settings: the decorative portion, once intended to crown a perfume bottle, now forms the visible pendant, while the functional part, originally inserted into the bottle, is where the silver casing has been attached. I will discuss this type of pendant in the second case study.

Natural materials

The majority of materials used in the collection are of natural origin. From the animal world, we find examples of coral, horn, bone, and teeth; the plant world is represented by thorns and a single nut; and there are also inorganic materials, including pieces of agate and unidentified rock. Figure 4 shows a selection of these amulets.

Six pendants are made from branch coral (*Corallum rubrum*, cut and polished, maintaining the original shape of the coral stems). This is noteworthy, as coral is largely absent from traditional Omani jewellery, despite its powerful reputation in Islamic material culture. Coral is one of the few organic materials mentioned explicitly in the Qur'an, in a verse that extols both pearls and coral as divine gifts (Qur'an 55:22). Across North Africa and Southwest Asia, coral has traditionally been believed to impart wisdom (Greffioz, 2009, p. 63; Van Roode, 2017) and confer general protection (Morris & Shelton, 1997, p. 105-106). The branch coral used here may have been sourced from the coral reefs located off the Omani coastline, suggesting at least some degree of local availability.

One pendant features a horn from the *dik-dik*, a small antelope native to southern and eastern Africa. The *dik-dik*'s horn, despite its geographical distance from Oman, held symbolic significance as an exotic and potent material, possibly acquired through long-established trading networks linking the Arab Peninsula with East Africa – Zanzibar formed part of the Sultanate of Oman for a long time. Two pendants feature the tip of a gazelle horn. The two thorns included in the collection are from the genus *Acacia*, a shrub widespread across the Arab Peninsula. Among the five pendants with teeth are specimens identified as fox teeth, hyaena teeth, and a cow's tooth. One pendant consists of a nut. The remaining thirteen pieces of bone and wood have not yet been conclusively identified.

Three pieces are made of stone. In these cases, it is noteworthy that all three have been created of stone that has been worked in one way or another: a large piece of agate appears to be part of a broken bead, and

two pieces of unidentified rock have been worked around the edges.

Proportion criticism and comparable collections

When considering the geographical origins of these materials, it is evident that the collection reflects a combination of locally sourced and imported items. However, it must be stressed that the present selection is filtered through the process of collection and acquisition (Ter Keurs, 2014, p. 50-51). Consequently, the distribution of materials within the collection cannot immediately be assumed to be representative of their relative importance in everyday use. Several layers of selection are at play: sellers may have curated their offerings to appeal to expatriate buyers, while the collector herself may have been guided by personal aesthetic preferences or an intent to acquire as diverse a range of amulets as possible. For instance, the presence of only a single pendant made from a nut raises the question of whether such materials were genuinely rare in local practice, or whether they were simply less attractive to outside collectors. To get some idea of the range of amuletic materials therefore, we need to compare this collection to other known datasets.

The collection under discussion is rare in its scale and scope. To my knowledge, only one other comparable collection exists: a group of Omani amulet pendants presented online (Oman & Zanzibar Virtual Museum). Together, these two collections offer valuable insight into the types of pendants available in Oman during the 1970s and 1980s.

When considering the materials employed, two other well-documented collections of amulets also provide useful points of comparison: the Winifred Blackman collection of Egyptian amulets (Van Roode, 2024) and the Tawfiq Canaan collection of Palestinian amulets (García Probert, 2021). Unlike the Omani collection discussed here, these two collections benefit from extensive contextual information concerning the use, names, and meanings of individual pieces. Both collections notably include a high proportion of amulets made from humble materials such as pebbles, bones, teeth, and twigs. This suggests that, far from being marginal, amulets crafted from simple or naturally occurring materials were indeed a central feature of everyday protective practices across North Africa and Southwest Asia. My interview with the collector of the present collection similarly suggests that amulets made from modest materials formed the majority in circulation, as do the available descriptions of similar items, however scarce these may be (Morris & Shelton, 1997; Greffioz, 2009). I will return to the implications of these observations in the discussion. First, however, I will present three case studies examining specific materials within the collection in greater detail.

Three case studies

Case study 1: Global meaning - Bohemian glass amulets

Among the pendants in the collection are five beads made of red glass bearing inscriptions. These are often referred to colloquially as 'Bohemian glass beads', after their place of production, or as 'hajj beads', reflecting the common practice among pilgrims to Mecca of bringing back such items as gifts for family and friends.

Bohemia, in present-day Czech Republic, was home to a number of glassmaking firms that specialised in producing beads for global markets. These companies manufactured not only items intended for the Islamic world but also objects such as imitations of teeth and bone, designed for trade in Oceania. As in many other cases of global trade, these companies did not introduce new forms but, instead, replicated and adapted objects already popular in Islamic material culture, offering them in far greater quantities than had previously been available. Older forms of these inscribed glass beads continued to be produced until the interwar period, and their designs can be traced back to inscribed pendants that were particularly popular in Shi'xi contexts during the eighteenth and nineteenth centuries (Porter, 2011).

The inscriptions they bear appear convincing but are, upon closer inspection, often illegible. This apparent inaccuracy however did not diminish their value to their wearers. In fact, that the text was not of primary importance becomes apparent from the way the pendants have been encased in silver, partly obscuring the inscription. Many believers, although illiterate, were deeply familiar with the Qur'an through oral transmission and memorisation. Encountering a script that visually resembled a Qur'anic verse could activate the power of the text through internal recitation and recognition, even without the ability to read it directly (Redman, 2023).

Beads of this type are not unique to Oman. Produced in the millions, they are a common feature of Islamic jewellery traditions throughout North Africa, Southwest Asia, and parts of India and Indonesia. The efficacy of these amulets was rooted in their direct association with faith. They communicated the wearer's identity as a Muslim and symbolically linked them both to the *ummah*



Figure 3. Glass bottle stoppers set in silver.

- the wider Muslim community - and to the blessings associated with the pilgrimage to Mecca. These pendants thus represent a cultural convergence: universal objects, produced commercially by companies with little or no cultural connection to their intended markets, which acquired spiritual meaning only at their points of reception.

Case study 2: Regional meaning - Bottle stoppers

Other commercially produced items present in the amulet collection are glass bottle stoppers, presented in Figure 3. The notion that these bottle stoppers were used as imitations of rock crystal is increasingly seen with Internet sellers. In my view, that points to their actual meaning being slowly forgotten. Rock crystal does not traditionally feature in Omani jewellery, and while the majority of bottle stoppers in the collection are made of colourless glass, Figure 3 shows examples in bright blue and blush pink, further complicating the notion of imitation.

Rather, these objects were incorporated into amulets precisely because they are bottle stoppers. The bottles they belong to are perfume bottles - and perfume holds meaning both within religious practice and broader cultural customs.

In considering the religious context, the concepts of purity and cleanliness are significant. The use of scent and personal grooming falls within the category of *mustahabb* (recommended) behaviour for Muslims, although its application varies across different branches of Islam. Additionally, fragrance in a religious setting is not merely an incidental accompaniment to religious experience; rather, it often constitutes an integral part of the experience itself (Mershen 2009).

Beyond its role in formal religious contexts, scent held considerable importance in informal ritual practices. It was employed in two principal capacities: as a generally beneficial agent, and as a specific means to achieve particular goals (Van Roode, 2020). Incense, for instance, was widely believed to act as a protective barrier against malevolent spirits. Because agreeable scents were understood to indicate the presence of benign forces, the wearing of fragrance carried strong apotropaic connotations (Mershen, 2009; Zimmerle, 2014).

In considering cultural customs, it is important to examine the role of perfume within the hospitality rituals of the Arab Peninsula. These practices are deeply rooted in concepts of honour, prestige, and the maintenance of social bonds. At the conclusion of a visit, it was customary for the hostess to circulate perfume bottles among her guests – the type of bottles from which the bottle stoppers originate. Each guest would apply a small amount of perfume, using an applicator or the stopper itself. These gestures were more than simple acts of grooming; they symbolised the enduring relationship between hostess and guest, as this practice ensured that the guest remained enveloped in the household's scent for many hours, or even days, after her departure. Through fragrance, the experience of hospitality was extended beyond the physical encounter, allowing the connection between guest and host to linger in a sensory way. In this context, perfume acted not merely as a sign of refinement or generosity, but as a medium for reinforcing social bonds and expressing shared cultural values (Kanafani, 1983, p. 320-325).

Seen in this light, the incorporation of perfume bottle stoppers into amulets may be understood not as an act of imitation or substitution, but rather as a conscious selection of objects carrying strong associations of faith, hospitality, and social connection. By repurposing these stoppers, wearers continued to engage with the meanings attached to fragrance. The power of this amulet therefore lies not simply in its visual appearance associating it with a universal recognition of religion, such as the Bohemian glass pendants discussed before, but derives its meaning from the specific regional context that fragrance, and by proxy its material culture, carries. While the religious aspect of fragrance holds true for the Islamic world in its entirety, these amulets are recognised as such within the cultural context that practices hospitality in this particular way. Outside of this cultural context, they do not carry this meaning - the regional cultural element here is predominant over the universal religious association with cleanliness.



Figure 4. Amulets of coral, bone, teeth, horns, thorns, wood, stone, and in the centre a piece of red plastic.

Case study 3: Local meaning - Locally sourced materials

The majority of amulets in the collection incorporates a wide array of natural materials: horns, thorns, pieces of bone, various types of teeth, agate, stones, and even a nut. Figure 4 shows a selection of these materials. As outlined earlier in this article, these materials were predominantly sourced locally.

At first glance, one might assume that the materiality of these items alone conveys a generic symbolic meaning. Teeth, horns, and claws, for example, could be interpreted as transferring the physical attributes, such as strength, endurance, or ferocity, of the animals from which they were derived to the wearer. This interpretation is certainly attested elsewhere; lion's claws and wolf's teeth, for instance, were incorporated into jewellery for newborns, intended to impart qualities of strength and protection (Bakker & McKeown, 2020). For the *tarkība*, the lion's claw is also mentioned as protecting from the evil eye in general (Hawley, 1978).

However, when considering more ambiguous items such as pieces of bone, fragments of wood, or seemingly ordinary pebbles, the attribution of meaning is far less self -evident. A comparison with the two collections introduced above - the Winifred Blackman collection from Egypt and the Tawfiq Canaan collection from Palestine - supports the view that such items are deeply rooted in highly localised practices of protection and healing. Both collections are accompanied by detailed documentation recording the specific uses of individual amulets. A careful reading of the associated notes with the Blackman collection reveals a rich and complex world of practices that would not necessarily be apparent from the material composition alone. Seemingly insignificant objects were used to address a wide range of conditions: joint aches, back pain, eye diseases, headaches, muscle cramps, and spirit possession, among others. I have observed that none of these purposes could be gleaned from the material chosen: it is impossible to differentiate between the functions of the amulets based on only the classification of their materials (Van Roode, 2024). The decisive factor in the selection of these materials is the knowledge and advice of a local healer. A similar mechanism may be at work with the *tarkība*: Morris & Shelton, 1997, describe how here, too, people would visit local healers and how these would prescribe amulets: 'certain pieces of bone were recommended for a persistent cough' (p. 176).

Recent work by García Probert (2021) has further demonstrated that, for many amulets in the Canaan collection, the specific provenance of the material is critical to its perceived efficacy. It is not any twig that holds power, but only one sourced from a particular tree, often situated in a specific, culturally significant location. Landscape features such as distinctive stones, ancient wells, and sacred trees frequently form an integral part of these practices: materials need to be sourced from a specific location in order to be effective. This perception of the landscape as a force of its own holds true in the context of Oman as well, where knowledge concerning specific locations associated with jinn is widespread (Borger, 2011, p. 15).

For the Omani *tarkība* in particular, I believe this local aspect is relevant. For example, amulets with teeth and claws were not readily available in the local market – the customer had to find and bring the individual pieces, and the silversmith would then set them in silver (Morris & Shelton, 1997, p. 106, 128). Additionally, explanations as to their use diverge and meaning attributed to specific materials changes, depending on where in the country the *tarkība* are encountered. In Central Oman for example, hyaena teeth were considered to protect boys, and fox teeth would be protecting girls (Hawley, 1978, mentioning a complete fox jaw; Shelton & Morris, 1997, p. 176). In Dhofar, leopard's teeth were valued – both because the animal itself was fast and dangerous, but also because local lore had it that leopards were associated with witchcraft and sorcerers, so wearing a leopard's tooth would protect against magic and curses (Shelton & Morris, 1997, p. 295; Mols & Boelens, 2009, p. 135). This is also why hyaena's teeth were considered valuable in Dhofar; fox teeth, on the other hand, carried no specific value here (Shelton & Morris, 1997, p. 296).

Discussion

Amulets are not passive artefacts; they are active expressions of human agency, shaped within recognisable frameworks of knowledge and practice. Their efficacy and meaning correspond to varying scopes of knowledge, which can be broadly outlined in two layers.

General protection

At the most widespread level, amulets offer general protection. No specialist expertise is required to understand the protective properties associated with certain shapes, colours, and motifs. Within the context of jewellery proper, such motifs form part of a standardised visual language. Their deployment is not tailored to individual requests but forms a conventional decorative repertoire. Examples from the collection such as the Bohemian glass pendants fall into this category – one could even argue they are not amulets, but culturally meaningful pieces of adornment.

Localised interventions

At the second level, amulets address very particular conditions. Here we enter the domain of local healers whose experiential knowledge is sought when an individual encounters difficulties such as chronic headaches, jaundice, fertility issues, fevers, or emotional distress. Although their reputations may extend across familial and village networks, their influence is primarily local. As has been noted with the Blackman and Canaan collections, the efficacy of an amulet often derives from the specific place of origin of its material. This level of agency is often invisible to outsiders: the object's power cannot be inferred from its appearance or material alone but must be understood through its embeddedness in local customs, practices and the environment.

It is this highly localised aspect that I consider central when interpreting the prevalence of locally sourced materials within the collection. I feel the tendency to generalise risks obscuring the nuances of local knowledge, which often remains under-documented and

underappreciated in academic literature as well (Popper-Giveon *et al.*, 2014, p. 134-136). Recognising the importance of place-specific beliefs and practices is in my view essential for a more accurate understanding of the role that the *tarkība* played within their original cultural context.

Conclusion

This exploration into the collection of Omani amulets demonstrates that the study of amulets and amuletic jewellery benefits from an approach that places these objects within their cultural context, instead of approaching them as isolated objects. Analysis of the present collection shows three interrelated levels of agency - global, regional, and local - which each must be considered to understand their significance. These levels resist classification based solely on material composition; rather, they reflect processes of bricolage, in which diverse elements are reinterpreted and recombined according to human needs and cultural understandings (Lévi-Strauss, 1962). As such, they reflect how the world of their people was shaped by global trade as well regional traditions and included a close relation with their immediate surroundings.

Simply classifying amulets purely by material or form risks flattening that complex interplay of cultural, religious, social and even economic dimensions that all contribute to their meaning. When future research into amulets builds on this approach, by integrating oral histories, ethnographic comparison, and contextual material analysis, I believe amulets across time and place have much more stories to tell!

References

Bakker, M.C. & K. McKeown (2020). From Cradle To Grave: A Life Story in Jewelry, in: Baird, I. & Yagcioglu, H. (Eds) *All Things Arabia*, Brill, Leiden

Bancroft, A. & I. Bosza (red) (2018). Secrecy: *who's allowed to know what*. Museum der Kulturen, Basel

Borger, J. (2011). *By the Pricking of My Thumbs, Something Wicked This Way Comes*. Independent Study Project (ISP) Collection 1039. SIT Digital Collections

Forster, A. (2000). *Disappearing treasures of Oman*. Archway Books, Somerset

Garcia Probert, M.A. (2021). *Exploring the life of amulets in Palestine: from healing and protective remedies to the Tawfik Canaan Collection of Palestinian Amulets*. [Doctoral thesis Leiden University, Scholarly Publications Repository] https://hdl.handle.net/1887/3245902

Greffioz, J. (2009). Traditional silver jewelry and handicrafts from Oman [privately published]

Hawley, R. (1978) *Omani Silver*. Longman, London/New York

Kanafani, A.S. (1983). *Aesthetics and Ritual in the United Arab Emirates. The Anthropology of Food and Personal Adornment among Arabian women*. American University of Beirut, Beirut

Lévi Strauss, C. (1962). *The Savage Mind*. University of Chicago Press

Mergenthaler, M. (2023). *Shine & Mystery. The splendour and power of oriental jewellery*. Nünnerich-Asmus Verlag, Oppenheim am Rhein

Mershen, B. (2009). Wierook en andere geuren. Het geurige erfgoed van Oman, in: Mols, L. & B. Boelens (2009). *Oman*. Museumshop De Nieuwe Kerk, Amsterdam

Morris, M. & P. Shelton (1997). *Oman Adorned*. A Portrait in Silver. Apex Publishing, Muscat & London

Oman & Zanzibar Virtual Museum: www.omanisilver.com, accessed May 22, 2025

Popper-Giveon A, Abu Rabia, A. & Ventura, J. (2014). White stone to blue bead, in: *Material Religion* Volume 10, issue 2

Rajab, J. S. (1998). *Silver jewellery of Oman*. Tareq Rajab Museum, Kuwait

Redman, J. (2020). Written in silver: protective medallions from inner Oman, in: Baird, I. & Yagcioglu, H. (eds) *All Things Arabia,* Brill, Leiden

Ter Keurs P.J. (2014). Entanglement: Reflections on people and objects. In: Bampilis T., Ter Keurs P.J. (Eds.) Social Matters(s): Anthropological Approaches to Materiality. Wien, Zürich: Lit Verlag, pp. 45-60.

Van Roode, S.M. (2017) *Desert Silver. Understanding personal adornment from North Africa and the Middle East*. Blikveld Uitgevers Publishers, Zandvoort

Van Roode, S.M. (2020) *Silver & Frankincense. Scent and personal adornment in the Arab world*. Blikveld Uitgevers Publishers, Zandvoort

Van Roode, S.M. (2024) *Silver of the Possessed. Jewellery in the Egyptian zār*. Sidestone Press, Leiden

Zimmerle, W.G. (2014). *Aromatics of all kinds: cuboid incense burners in the ancient Near East from the late third to the late first millennia B.C.* ProQuest, Ann Arbor

AMULETS - AS SPECIAL ARTEFACTS

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Summary
Archaeological excavations reveal artefacts which, due to their unique form and the context of their discovery, can be interpreted as amulets. However, amulets are not an homogeneous or easily defined category, especially when their identification is based solely on excavation results. Ethnoarchaeological studies show that amulets can vary not only in form, but also in the materials from which they are made. Moreover, their functions appear to be diverse, closely linked to beliefs, ritual practices and other socio-cultural phenomena. By analyzing various examples, this article aims to highlight the broad role of amulets and the different approaches to their study.

Keywords: Amulets, identifications, categories, functions, connotations

Introduction

Amulets are artefacts that have accompanied human societies throughout most of their history (Tobias, 2008, pp. 241-256; Czech-Błońska *et al.,* 2025). They constitute a distinct category within material culture, associated with the crossing of symbolic thresholds at cognitive stages of human evolution (Deacon, 1997; Suddendorf & Corballis, 1997, pp. 133-167; Bouzouggar *et al*, 2007, pp. 717-720; Tobias, 2008, pp. 241-256; Kleibengajtis, 2012). Although the exact moment when people first ascribed symbolic meaning to objects remains elusive, it is clear that amulets - understood as specific artefacts often worn on the body or embedded in clothing - are imbued with intentionality and purpose. However, amulets are not a homogeneous or easily definable category of artefact, especially when their identification is based solely on archaeological excavation data (David, 1997). For this reason, insights from ethnoarchaeological and ethnographic studies are also included to help illuminate the topic.

The methodological approach adopted in this article is qualitative and interpretative, based on a comparative analysis of archaeological and ethnographic case studies. The data comes from published ethnoarchaeological literature, with particular emphasis on the metonymic and symbolic dimensions of the meaning attributed to amulets in different cultural contexts. The article is a synthesis of archaeology secondary and primary ethnographical sources[1], aimed at deepening attempts to identify amulets and their multiple functions.

Definitions of amulets in the scientific literature primarily focus on their functional roles, which range from apotropaic and prophylactic to therapeutic and exorcistic purposes (Skemer, 2006, pp. 6-7). Most researchers emphasize their protective, therapeutic but also spiritual significance. Such artefacts are often considered *special* because of their perceived magical properties, which are believed to influence the fate and well-being of their owners. However, their significance goes beyond these interpretations and often lies in their multifunctional nature - which should be reflected.

The possession of such an object is often associated with a sense of ontological security, reinforcing the possessor's connection to benevolent and usually supernatural forces. Amulets are therefore not just passive objects but are embedded in a broader cultural framework designed to enhance human activity or protect against perceived threats. Importantly, these threats are not always understood as coming from the physical or visible world; they can also come from invisible, spiritual or metaphysical dimensions. In this context, amulets may contrast with other objects - attributed with sinister or harmful powers - as evident, for example, in ethnographic sources (Jozefow-Czerwińska, 2017, p. 101). According to these records, in some communities it was believed that material objects could transmit danger, disease, or misfortune. Highlighting this dichotomy allows for a deeper understanding of the symbolic and psychological dynamics within belief systems. The aim of this article is to highlight the challenges associated with identifying amulets, understanding their function and exploring their links to belief systems and socio-cultural phenomena. A comparative approach is adopted, incorporating evidence from archaeological, ethnoarchaeological and ethnographic studies, while drawing on concepts of symbolic communication and insights from linguistic cognitive science. In this context, spiritual relationships are not merely symbolic; they may reflect deeper, embodied connections between individuals and their sacred environment, ancestors and sacred narratives. Moreover, these relationships illustrate the multifunctionality of amulets, which goes beyond a single interpretation of their purpose. By integrating multiple

[1] In 2010-2017 I conducted research on the Polish-Belarusian border, an ethnographic project Polesie, under the Aleksander Gieysztor Academy of Humanities.

perspectives, we can move towards a more nuanced and context-sensitive interpretation of material culture and its symbolic dimensions.

Amulets in Paleolithic to Ethnoarchaeological Perspectives

In the context of Paleolithic hunter-gatherer societies, body decorations (which can play role as amulets) are often associated - albeit simplistically - with objects such as necklaces made of perforated shells or animal teeth (White, 2003 a; 2003 b). In contemporary archaeological discourse, such artefacts can be analysed not only in terms of their aesthetic or decorative role, but also in relation to their symbolic or communicative significance (Insolt, 2011). For example, research by Jack Baker *et al.* (2024) looked at personal ornaments associated with the Gravettian technological complex (dated to 34,000 to 24,000 years ago). The authors showed that there were at least several distinct decorative traditions that cannot be explained by spatial distance alone. The researchers concluded that, over time, personal objects began to take on communicative meanings, serving to convey information about individuals' group membership and social status (pp. 431-444).

Analysed as carriers of information, these artefacts can also support communicative processes by reinforcing collective memory, mythological narratives and symbolic mnemonics etc. (Cârciumaru & Niţu, 2018; Vanhaeren *et al.*, 2006). Consequently, such artefacts can also be studied for other information that may be encoded in them (e.g. role in communication, social rank of users, gender, age, ritual status, etc.). The idea that social hierarchies may have existed even at such early periods (in addition to other reasons for differences, especially in grave goods) is also supported by discoveries from the Magdalenian culture, such as those from the site of Saint-Germain-la-Rivière (dated to 15 570 ± 200 BP). Marian Vanhaeren and Francesco d'Errico (2003) compared finds from this site with ornaments and faunal collections from contemporary Magdalenian sites and burials discovered in south-western France. They argued that the presence of young deer tusks in the graves, sometimes bearing engraved marks (graphemes), was surprising because deer were absent from the faunal assemblages in these regions at that time. These items were probably obtained through trade or during expeditions, suggesting that they were highly valued (pp. 195-238).

“Personal objects” - such as pendants made from the tusks of predators, the teeth of hunted animals or materials such as shells, bones or stones - discovered at Upper Paleolithic sites may also have spiritual meanings.

In this context, it is also worth noting the selection of materials used to make amulets according to ethnoarchaeological sources from indigenous Australian communities. According to Jane Balme and Sue O'Connor's (2019) study, Aboriginal beads from both archaeological contexts and museum collections leads to the conclusion that the selection of raw materials was deliberate rather than random. Animal teeth were used, with a clear preference for the teeth of large macropod species over those of other mammals, even though the latter were more readily available in the environment. Interestingly, beads made from dingo teeth were almost entirely absent among Australian Aboriginal groups but were present in personal adornments in Melanesian populations in Papua New Guinea (Sand, 2004, pp. 57–72.). Typically, beads made from luminous, pearl-like shells were preferred, reflecting ethnoarchaeological and historical evidence that attributes strong religious and symbolic significance to such materials (Balme & O'Connor 2019, p. 177).

Kim Akerman (2018) argues that the luminous white pearl shell had direct links to ancestral creaturely beings and was seen as inherently imbued with their spiritual power. According to groups from the Western Desert, pearl shells were seen as embodying the essence of water - they came from sacred water holes (Akerman & Stanton, 1994, p. 19). Among the Bardi people of Dampierland, it is believed that these shells were formed by the rainbow serpent Alungun (Akerman, 2018, p. 207). As Dreeington (2000) noted, such objects may have functioned as emblems of prestige, signifying individuals of high social or ritual authority (pp. 70-71).

It is also worth considering the limitations of our perception of amulets. To explore this, let us look at the significance of ochre in Aboriginal communities. Ochre was widely used, serving not only a utilitarian function, but also having symbolic significance (Huntley, 2021, p. 134). However, in some contexts it may have functioned as an amulet, particularly when it came from sites associated with cultic beliefs and practices. Contemporary research into the origins of ochre in Aboriginal communities suggests that ochre was sometimes transported from remote regions, indicating planning but also intentionality in sourcing ochre from specific landscapes. These locations were often linked to belief systems, mythological concepts and narratives related to the time of creation (Wright, 1995, pp. 21-35; Smyth, 2015, pp. 45-60).

Symbolic and Cognitive Dimensions of Amulet Studies

Amulets could be interpreted as material indicators of data which could provide expressions of metonymic significance. According to Günter Radden & Zoltán Kövecses (2007), metonymy, considered within the context of cognitive processes, refers to cognitive connections. In such relationships, a conceptual element—whether an object, property, phenomenon, or event—that serves as a carrier of information, points to another conceptual element within mental representations. However, metonymy does not simply involve the substitution of one entity for another; rather, it integrates them, generating new and complex meanings. The metonymic unit thus operates as a

"reference point," facilitating mental access to another conceptual unit or intended target. It is essential to further explore the nature of these relations to fully understand the cognitive dynamics at play (pp. 2-29).

Furthermore, metonymic connections are deeply rooted in complex imagery schemas (IS), which are integral to the structures of abstract thinking (Johnson, 1987; Krzeszowski, 1999, pp. 22–40; Masłowska, 2016). Image schemas act as cognitive tools that facilitate the construction of more complex concepts, thereby shaping our understanding of the world. At the same time these constructs are pivotal in shaping similarities in the mental profiles of members within a given community.

This conceptual framework enables the analysis of, for example, the IS: power–source–aim, which reflects networks of semantic and symbolic relations along with their associated configurations. In the context of special artefacts, these schemas can be employed to evaluate and categorize objects by examining their origins, sources of power, and the nature of those powers. For instance, one might inquire about the source of an artefact's power—whether it derives from ancestors, spirits, deities, or other supernatural forces—and whether it embodies a beneficial force for individuals or, conversely, serves as a malevolent one. Image schemas (IS) and related cultural codes shape the human mind by forming unconscious mental constructs conditioned by the cultural model of perceiving the world. In this regard, the contribution of the Lublin School, particularly Jerzy Bartmiński's cognitive linguistics framework, is of particular significance. Research within this framework has shown that the linguistic representation of the world in the studied communities is far from random (Bartmiński, 2008). These conceptualizations help to identify the ways in which elements related to belief systems and symbolic representations are categorized, valued, and imbued with meaning. This approach demonstrates that language not only classifies objects and phenomena but also carries cultural and symbolic meanings that influence how communities understand their relationship with the world.

Thus, the study of metonymy in material culture —such as amulets or other special artefacts—offers crucial insight into the complex processes through which meaning is constructed, negotiated, and transmitted within cultural and belief systems. To illustrate this phenomenon, we can use ethnographic sources such as, for example, the old significance of bread for the inhabitants of the Polish-Belarusian borderland. In this context, for example, bread was metonymically linked to God and to grain, which, according to myth, God provided to people after their expulsion from paradise (Józefów-Czerwińska, 2017, p. 36). Bread is therefore (in a metonymic sense) directly related to the highest form of holiness (Kowalski, 2000; Kubiak & Kubiak,1981; Józefów-Czerwińska, 2017, p. 51). It thus served not only utilitarian purposes but also fulfilled sacred (i.e. in rituals of initiations); apotropaic (as bread consecrated on St. Agatha's Day was endowed with special protective properties, particularly against fire); spiritual (sacred connotations of bread with Good) or therapeutic functions (Stypa, 2018, pp. 210-211). At the same time, the desecration of bread was considered a sacrilege by the people of this region, one that could have serious consequences in their life (punishment from supernatural beings).

Conclusion

Amulets, as distinctive cultural artefacts, are an important and fascinating subject of scholarly study. Their meanings are closely linked to the worldviews, reflecting the underlying belief systems and being intricately embedded in the cultural traditions and symbolic practices of the communities to which they belong. Evidence from archaeological, ethnoarchaeological and ethnographic studies unequivocally demonstrates that amulets fulfill multifaceted roles in human societies, encompassing protective, therapeutic and spiritual functions. However, their meanings and functions often transcend these categories, as amulets act as complex carriers of diverse information encoded within the specific belief systems and socio-cultural frameworks of their wearers and communities.

Even contemporary ethnographic research from the Polish-Belarusian borderland shows that amulets are not only objects of personal protection, but are also deeply connected to cultural beliefs and social bonds, symbolizing relationships with ancestors and often referring to transcendent dimensions of the world[2] (this complexity extends also to artefacts associated with misfortune—the opposite of amulets, which is the cause of many different taboos[3]).

To analyze the cultural content of amulets more deeply, it is worth using insights from multiple disciplines. This interdisciplinary approach fits well with the complex role of amulets embedded in specific socio-cultural contexts. Using the cognitive framework of, for example, the Lublin School, we can illustrate how cultural codes and linguistic conceptualizations shape the ways in which societies categorize and assign meaning to objects, influencing their relationships with the world. This is important in attempts to expand the research imagination.

Unfortunately, when studying the distant past, there are many barriers to discovering deeper symbolic meanings, and such limitations also affect the identification of amulets and the interpretation of the information encoded in them. Nevertheless, modern research shows that archaeological discoveries, supported by advanced

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Amulets held personal and household significance. Often brought from sanctuaries, they included not only devotional items but also objects like dried flowers. Others were ancestral relics—such as wedding wreaths or towels—believed to bring happiness (Józefów-Czerwińska, 2017, pp. 208, 235).

A traditional taboo, for example, forbids taking objects from crossroads—places of mediation—due to the belief that misfortune could be transferred onto items left there, and anyone who takes them inherits the associated ill fate or illness. (Józefów-Czerwińska, 2017, pp. 208, 235).

methods using new technology, provide a wealth of data that, although they have still limitations, bring us closer to understanding old societies, including the role played by the amulets they used.

References

Akerman, K. (2018). The esoteric and decorative use of bone, shell and teeth in Australia. In Michelle C. Langley, Duncan Wright, Mirani Litster & Sally K. May (Ed.) The Archaeology of Portable Art: Southeast Asian, Pacific and Australian perspectives. (199-219). Routledge.

Akerman, K., & Stanton, J. (1994). Riji and Jakoli: Kimberley Pearlshell in Aboriginal Australia (Monograph Series No. 4). Darwin, Australia: Northern Territory Museum of Arts and Sciences.

Baker J., Solange R., Pereira D., Caurtenay L.A. & D`Errico F. (2024). Evidence from personal ornaments suggest nine distinct cultural groups between 34,000 and 24,000 years ago in Europe. Nature Human Behavior, 8(3), 431-444.

Balme, J. & O'Connor S. (2019), Bead Making in Aboriginal Australia From the Deep Past to European Arrival: Materials, Methods, and Meanings. PaleoAnthropology Special Issue: Early Personal Ornaments, 177−195. http://doi:10.4207/PA.2019.ART130

Bartmiński, J. (2008). Cognitive linguistics and cultural conceptualizations: A study of Polish folk beliefs. Lublin University Press.

Berndt, R.M. and Berndt, C.H. (1968). The World of the First Australians. Ure Smith: Sydney.

Bouzouggar, A., Barton, N., Vanhaeren, M., d'Errico, F., Collcutt, S., Higham, T., Hodge, E., Parfitt, S., Rhodes, E., Schwenninger, J.-L., Stringer, C., Turner, E., Ward, S., Moutmir, A., & Stambouli, A. (2007). 82,000-year-old shell beads from North Africa and implications for the origins of modern human behavior. Proceedings of the National Academy of Sciences of the United States of America, 104(24), 9964–9969. http://doi.org/10.1073/pnas.0703877104

Cârciumaru, M., & Nițu, E. (2018). The symbolic use of animal teeth and claws in Upper Paleolithic personal ornaments. Journal of Archaeological Science: Reports, 19, 1209–1217. https://doi.org/10.1016/j.jasrep.2017.10.019

Czech-Błońska, R., Miśta-Jakubowska, E., Duczko, W., Brojanowska, A., Oleszak, D., Kruszewski, Ł., & Józefów-Czerwińska, B. (2025). Wczesnośredniowieczne granulowane ozdoby z polskich skarbów i grobów: Techniki lutowania i problemy konserwatorskie. Kwartalnik Historii Kultury Materialnej, 1 (in print).

David, M. (1997). The archaeology of ritual and magic. Routledge.

Deacon, T. W. (1997). The Symbolic Species: The Co-Evolution of Language and the Brain. W.W. Norton& Company.

Derrington, P. (2000). The role of shell ornaments in Aboriginal Australia. Australian Aboriginal Studies, 2000(2), 70–71.

Huntley J. A., (2021). Australian Indigenous Ochres: Use, Sourcing, and Exchange. In I.J. McNiven& B. David (Ed.), The Oxford Handbook of the Archaeology of Indigenous Australia and New Guinea (pp. 743-770). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190095611.013.21

Insoll, T. (Ed.). (2011). The Oxford handbook of the archaeology of ritual and religion. Oxford University Press.

Johnson, M. (1987). The body in the mind: The bodily basis of meaning, imagination, and reason. University of Chicago Press.

Józefów-Czerwińska, B. (2017). Zabobonem nazwano. O wierzeniach, wartościach i dawnych przekonaniach mieszkańców polsko-białoruskiego pogranicza w ich związkach z przeszłością. Wydawnictwo Trzecia Strona.

Kleibengajtis, T. (2012) Human – a praying animal. Spirituality as consequence of brab evolution. GRIN Publishing.

Kowalski, P. (2000). Chleb nasz powszedni. O pieczywie w obrzędach, magii, literackich obrazach i opiniach dietetyków. Towarzystwo Przyjaciół Ossolineum.

Krzeszowski, T. P. (1999). Aksjologiczne aspekty semantyki językowej. Wydawnictwo Uniwersytetu Jagiellońskiego.

Kubiak I., Kubiak, K. (1981). Chleb w tradycji ludowej. Ludowa Spółdzielnia Wydawnicza.

Masłowska E., (2016). Ludowe stereotypy obcowania świata i zaświatow w języku i kulturze polskiej. Agade Bis.

Radden, G., & Kövecses, Z. (2007). Conceptual metaphor theory: Some criticisms and alternative proposals. Annual Review of Cognitive Linguistics, 6, 168–184. https://doi.org/10.1075/arcl.6.08kov

Sand, C. (2004). Beads and personal adornment in Melanesia: Material culture and identity. Journal of Pacific Archaeology, 5(2), 57–72.

Skemer, D. C. (2006). Binding words: Textual amulets in the Middle Ages. The Pennsylvania State University Press.

Stypa, H. (2018). O chlebie naszym powszednim – motyw chleba w kulturze i języku polskim. In. A. Głowacka-Penczyńska & J. Żychlińska (Eds.). Apetyt na jedzenie. Pokarm w społeczeństwie, kulturze, symbolice na przestrzeni dziejów (pp.208–216). Bydgoszcz: Wydawnictwo Uniwersytetu Kazimierza Wielkiego.

Suddendorf, T., & Corballis, M. C. (1997). Mental time travel and the evolution of the human mind. Genetic, Social, and General Psychology Monographs, 123(2), 133–167.

Tobias, P. (2008). Early human symbolic behavior and the evolution of amulets. In K. O. Dietrich & G. Watson (Ed.), Material culture and symbolic behavior in prehistoric societies (pp. 241-256). Archaeological Society.

Vanhaeren, M., d´Errico F. (2003). Le mobilier funéraire de " la dame " de Saint-Germain-la Rivière (Gironde) et l´origine paléolithique des inégalités. Paleo, 15, 195-238.

Vanhaeren, M., d'Errico, F., Stringer, C., James, S., Todd, J., & Mienis, H. (2006). Middle Paleolithic shell beads in Israel and Algeria. Science, 312, 1785–1788.

Vanhaeren M., d'Errico F., Van Niekerk K.L., Henshilwood C. S., & Erasmus R.M. (2013). Thinking strings: Additional evidence for personal ornament use in the Middle Stone Age at Blombos Cave, South Africa, Journal of Human Evolution 30, 1-18.

White, R. (2003 a). Prehistoric Art: The Symbolic Journey of Humankind. Harry N. Abrams.

White, R. (2003 b). Personal ornaments and the evolution of human symbolic behavior. In P. Mellars & C. Stringer (Ed.), The Human Revolution: Behavioural and Biological Perspectives on the Origins of Modern Humans (pp. 361–391). Edinburgh University Press.

Wright, R. (1995). The role of ochre in prehistoric and historic Aboriginal Australia. Australian Archaeology, 41, 21-35. https://doi.org/10.2307/40953616

APOTROPAIC MECHANISM OF SUZDAL *ZMEEVIK*-AMULET

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Summary
Suzdal *zmeevik*-amulet is a round medallion (5,9x0,7 cm), carved of heliotrope (blood jasper). It was kept for a long time in the Sacristy of the Cathedral of the Nativity of the Theotokos at Suzdal, Russia. In 1890 the medallion was transferred to the collection of the State Historical Museum at Moscow. On both sides of the medallion, there are images and two-line church Slavonic prayer inscriptions. On one side, there are images of the Seven Sleepers of Ephesus with their names and an inscription (an appeal to Christ with a mention of the Seven Sleepers about the granting of life-giving sleep to certain George and Christina and the extinguishing of the "fiery power"). On the other side is an image of an anthropomorphic head with six dragon-headed serpentine bodies, turned to the left; six eight-pointed stars are located between the serpentine bodies; an inscription (an appeal to Christ for mercy on certain Mary and Christina). The *zmeevik*-amulet is an artifact of the elite culture of Medieval Rus'. It embodies the theological and natural scientific knowledge accumulated in the Mediterranean and Europe by the beginning of the XIIIth century. The creator and customer of this amulet had this knowledge (to varying degrees, perhaps). Suzdal *zmeevik*-amulet represents the healing practices of the Middle Ages. This is not an object of personal piety, but a medical instrument (or remedy) used in the case of illness of one of the three persons named in the prayer inscriptions. Each of the elements of the apotropaic mechanism had corresponding properties - it affected the illness and ensured the reproduction of a healing prayer. The list of diseases, for which this amulet could be used, is wide - from infections and viral diseases to mental disorders and neurological pathology. The user of the amulet may not have had the full knowledge and experience encoded in it, but she was aware of the effect produced by its apotropaic mechanism.

Keywords: amulet, prayer inscription, hysteria, heliotrope.

Introduction

Medieval Russian *zmeevik*-amulets (Figure 1, 2) form an interesting and promising group of artifacts in terms of research. This type of amulet is related to Byzantine *hystera*-amulets (Figure 3) in terms of their historical context. They appeared in Byzantium (Spier, 1993), came to Russia at the end of the Early Middle Ages together with Christian Greek-speaking scholarship, were adapted in Old Russian culture and were used until the XIXth century (Nikolaeva, & Chernetsov, 1991).

These artifacts were small metal or stone pendants in the form of medallions. In rare cases, the shape could be different. On the front side of these amulets was a Christian image - Jesus Christ, the Mother of God (Mary), the Archangel Michael or a saint. The back side carried a non-Christian image - the so-called *serpentine composition*. It is an image of a human head (less often - a half-figure or even a full figure), surrounded by snakes or dragons. Many amulets had inscriptions that can be divided into two groups: 1) prayer inscriptions; 2) spells, *hystera*-formulae. In the context of the Christian culture of medieval Rus', the *serpentine composition* is perceived as a secondary image on the back of the icon. However, it is the presence of this composition that is the main feature characterising Russian *zmeevik*-amulets.

The popularization and replication of these objects led to the schematization of the image, the Russification of the spell and the imitation of the verbal formula. In the XV–



Figure 1. Russian *zmeevik*-amulets, XII – XIV c.:
a.Bronze pendant, diameter 4,1 cm, XII - XIII c. Site Kistysh-3 (Suzdal region, central Russia). From: Makarov & Zaitseva (2023, Figure 84-4).
b.Bronze pendant, diameter 4,3 cm, XII - XIII c. Site Karel'skaya Slobodka-4. (Suzdal region, central Russia). From: Makarov & Zaitseva (2023, Figure 84-5).
c.Bronze pendant, diameter 3.6 cm, XIIth c. Veliky Novgorod (Russia). From: Oleynikov (2016, Figure 2-3).
d.Pendant made of tin-lead alloy, dimensions 3,5x4.4 cm, ½ XIV c. Veliky Novgorod Fine Arts Museum (Russia), inv. N° 42860845. From: Nikolaeva & Chernetsov (1991, N° 40, Pl. XVIII-1).
e.Copper pendant, dimensions 5.5 cm, XIII – XIV c. Saint Petersburg (Russia), State Hermitage Museum, inv. N° 1344. From: Ryndina (1988, P. 387, N° 269)



Figure 2. Russian *zmeevik*-amulets, XV – XIX c.:
a.Copper pendant, dimensions 5,7 × 4,6 × 0,4 cm, XV c. The Central Andrei Rublev Museum of Ancient Russian Culture and Art. From: Gnutova & Zotova (2000, Pp. 44, Figure 56.).
b.Copper pendant, dimensions 5.2 × 4.2 × 0.4 cm, XVI c. The Central Andrei Rublev Museum of Ancient Russian Culture and Art. From: Gnutova & Zotova (2000, Pp. 44, Figure 55.).
c.Copper pendant, diameter 6,5 cm, XIXth c. The Central Andrei Rublev Museum of Ancient Russian Culture and Art. From: Gnutova & Zotova (2000, Pp. 43, Figure 50.).

XVI centuries, *zmeevik*-amulets of the kiot (icon case) form appeared (Figure 2a-b). In the iconography of these amulets an important place was occupied by saints who were slayers of the serpent-demon - Theodore Tiron (Saint Theodore, died in 306) and Nikita the Demonslayer (Early Christian saint, apocryphal great martyr, fictitious son of the Roman emperor Maximian, 2/2 III – ½ IV centuries). At the same time the schematized *serpentine composition* increasingly resembled decor (i.e., it lost its applied meaning). Indicative in this sense is the entry about the jasper *zmeevik*-amulet that Ivan IV the Terrible (1530-1584) donated to the treasury of the Trinity Lavra of St. Sergius (the most important Russian monastery, Moscow region, Russia): in the monastery inventory, the object is called an "icon", and the *serpentine composition* is called a "decor" (Nikolaeva, & Chernetsov, 1991, p. 6).



Figure 3. Byzantine *hystera*-amulets, X - XIIth c.:
a.Silver pendant, diameter 4,5 cm, Houston, Menil Collection, inv. N° 490.824. From: Spier (1993, N° 34, Pl. 3b).
b.Lead medallion, diameter 4 cm, Oxford, Ashmolean Museum. From: Spier (1993, N° 25, Pl. 2c).
c.Lead medallion, diameter 1,9 cm, Corinth, Archaeological Museum, inv. N° 7050. From: Papanikola-Bakirtzi (2002, N° 663, P.487).
d.Silver pendant, diameter 6,6 cm, Athens, Benaki Museum, inv. N° 11436. From: Papanikola-Bakirtzi (2002, N° 664, P.487-488).

The use of *zmeevik*-amulets in the XIXth century is noted in historiography. In 1826, Russian antiquarian Stepan Nechaev (1792-1860) published an article "Notes on the old copper icon" (Nechaev, 1826), which presented a *zmeevik*-amulet with the image of the Mother of God (Mary), accompanying it with the following comment: "The large family, which belongs to the described icon-pendant, has a special respect for her and for various diseases attributes the miraculous power of alleviating the suffering by only one application of it." It is noteworthy that S. Nechaev uses the term "icon-pendent" - i.e., for him, this is not a complex phylacterium, but an icon with an addition of a *serpentine composition*. However, the icon-pendent is presented not as an object of personal piety, but as a tool of magical and medical practices for healing numerous members of one family. There is another ethnographic mention of *zmeevik*-amulets in XIXth century Russia: peasants in the northern provinces wore them on their chests along with a cross, like icons (Destunis, 1889).

Thus, we can speak of a tradition that evolved over one thousand years. This tradition was syncretic. It included elements of paganism and Christianity, scientific knowledge and superstition, and was adopted at different levels of social stratification. Accordingly, the "standard" of the amulet changed - images and inscriptions varied. The only thing that remained unchanged was the *hystera*-formula in the text and/or the image of a *serpentine composition*.

The combination of Christian and pagan elements in one artifact reflects the complex cultural syncretism characteristic of medieval Russia. *Zmeevik*-amulets fulfilled the function of protection from evil spirits and diseases and served as an important element of religious and cultural identity. The study of these objects provides a deeper understanding of the mechanisms of interaction between different scientific and religious traditions in Russian history.

Suzdal *zmeevik*-amulet

Among the Russian artifacts of this group a special place is occupied by the Suzdal *zmeevik*-amulet – the so called *Suzdal'skii zmeevik* (Figure 4). Chronologically and stylistically this medallion forms a link between Byzantine *hystera*-amulets (Spier, 1993) and Russian *zmeevik*-amulets (Nikolaeva, & Chernetsov, 1991).

Suzdal'skii *zmeevik* is a medallion with a diameter of 59 mm and a thickness of 7 mm (Nikolaeva, & Chernetsov, 1991). The medallion is made of heliotrope (blood jasper). The images and inscriptions are done with intaglio technique (carving in depth). On one side there are images of the Seven Youths of Ephesus with named columnar inscriptions. On the other side there is an image of an anthropomorphic head from which six snake



Figure 4. The Suzdal'skii *zmeevik*. Helitrope intaglio, diameter 5,9 cm, XI - XIIth c. Byzantine/Rus'. Moscow (Russia), The State Historical Museum.
From: Zalesskaya (2018).

bodies with dragonheads emerge. The dragonheads are all turned to the left. Six eight-pointed stars are located between the serpentine bodies. There are two-line Russian prayer inscriptions along the rim of both sides.

The medallion was kept for a long time in the Sacristy of the Cathedral of the Nativity of the Theotokos in Suzdal (one of the urban centers of medieval Rus'). Russian archaeologist and art historian, Georgy Filimonov (1828—1898), discovered it in 1866. Ten years later, G. Filimonov published an article about the medallion (Filimonov, 1876). In 1890, the medallion was transferred to the State Historical Museum in Moscow, where it has been kept till the present day. In the Electronic Catalogue of Museum Objects SHM, the amulet has the inventory number ОК15560/19726/10811416.

The medallion became subject to the attention of many researchers. They are M. N. Speransky (1893), A. V. Ryndina (1972), M. V. Schepkina (1972), V. N. Zalesskaya (1974; 2018), T. V. Nikolaeva & A. V. Chernetsov (1991), J. Spier (1993), A. A. Ghippius & A. A. Zaliznyak (1997), A. A. Medyntseva (2000), Yu.Yu. Shevchenko (2009), N.I. Milutenko (2021).

In 2019-2023, I carried out a complex study of the Suzdal amulet in the context of the history of medicine. The project consisted of three stages of characterization of the medallion as a tool of magico-medical practices: 1 – iconological analysis of the images on both sides of the medallion; 2 - identifying the relationship between images and prayer inscriptions; 3 – revealing the interrelation of images, inscriptions, material and shape of the amulet. The results of these studies are presented by A. V. Biserova & A. G. Lapshin (2019) and A. G. Lapshin (2020a-c, 2022a-c, 2023).

Amongst the variety of opinions on the attribution of the medallion, the following theses are agreed upon: 1) the inscriptions were made between the middle of XII and the beginning of XIII century; 2) the medallion belonged to a certain woman named Maria, who was a member of an aristocratic Russian family.

Methodology

The medallion from Suzdal is a high quality gemstone intaglio and structurally specified product. It is a combination of several elements: mineral, round shape, images and inscriptions on both sides. Analysis of these elements and their interrelation brings us to suggest an apotropaic mechanism for the amulet as a closed sequence of articulated links for warding off disease.

The starting point of my synthesis is the inscriptions. These are prayers addressed to Jesus. Each prayer is arranged in two lines – on the outer and inner circle. The beginning and end of the prayer are marked with a "+" sign. In the medieval visual tradition, this was a sign to indicate making the sign of the cross at specific moments during recitation of the prayer by the supplicant.

The Seven Sleepers of Ephesus: prayer and image

The first prayer translated into contemporary language, sounds like this: "+*Lord Jesus Christ, who gave sleep to the Seven youths in Ephesus mountain, grant us, your servants George and Christina, a life-giving, peaceful sleep and quench the fiery force. Amen*+". It is located on the side with the named images of the Seven Youths of Ephesus.

The content of the prayer correlates with the image. Appeals to the Seven Youths of Ephesus in the treatment of diseases are codified in medieval healing prayers and formulas in the Greek, Latin, Old English, Slavic and Russian traditions (Bonser, 1945; Milutenko, 2021; Lapshin, 2022b). These prayers had to be individualized, i.e., to include the name of the sick person who was seeking help. The mention of the Seven Sleepers in these text-prayers correlates with the Christian theological meaning of the plot: the Lord, through the awakening of the youths after a long sleep, revealed to the Church the secret of the resurrection of the dead. In the context of medieval sympathetic medicine, sleep disorders were treated with reference to the story of the Seven Youths of Ephesus.

In the Russian Orthodox prayer tradition this was realized in the *Prayer when the sick person does not sleep*. This prayer had to include the name of the sick person whose help was being asked for. Its formulas were fixed in the old Russian Euchologions of the XV–XVI centuries (Milutenko, 2021). Greek and Russian Orthodox prayer healing cycles included it. It goes back to the text *Prayer over the Infirm* of the Italo-Greek Euchologions of the XII-XIII centuries from the Vatican Apostolic Library: Barb. gr. N° 393 (78), Barb. gr. N° 443 (233) (Almazov, 1900). Based on the results of the historico-philological analysis of the Suzdal amulet inscriptions N.I. Milyutenko concluded that the inscription mentioning the Seven Sleepers is the closest to the text of the prayer in the Serbian Trebnik of the early XIV century (Milutenko, 2021).

In the prayer on the Suzdal amulet there is a request to *extinguish the fiery force*. Obviously, the speech is about a

high temperature. A person's subjective sensations at elevated temperatures include increased chills and trembling in the muscles. In the Middle Ages diseases with such symptoms were referred to as "fevers". Many healing prayers and magico-medical recipes of Medieval Europe, mentioning the Seven Sleepers, are aimed at counteracting fever.

We can add two important facts to this. 1) Sleep was considered in medieval medicine to be a universal method of healing and was prescribed to sick persons. (Ekirch, 2015). 2) A number of Anglo-Saxon and Latin recipes mentioning the Seven Sleepers determined the simultaneous execution of the following actions: the recitation of a prayer (formula with the patient's name added) and manipulating the little wafers such as are used when making an offering (communion wafers or hosts, traditionally round), on which the names of all Seven Sleepers were written (Bonser, 1945). These are the following texts: *Wið Dweorh* (British Library, Harley MS 585, fol. 167r), *Contra febres* (Worcester Cathedral library, MS 4. fol. 5), *Contra febres* (British Library, MS Cotton Faustina A. X. Fol. 116), *Contra febres* (British Library, MS Royal 12. E. XX. Fol. 162v), *De somnium sanus* (British Library, MS. Royal 2. A. XX. Fol. 52r), *Contra febres* (Königliche Bibliothek zu Stockholm, medizinischen Miscellan-Hs. in kl. 4), *Ut dormiens lenius dormiat* (Wroclaw University Library, collection of manuscripts – MS 1361).

When comparing the prayer inscription on the side of the Suzdal amulet with the named image of the Seven Youths of Ephesus with the formula "Seven Sleepers" in the manuscript from the Royal Collection of the British Museum Library (MS. Royal 2. A. XX. Fol. 52r), the commonality is revealed: in both cases this is a prayer text about restorative sleep through mediation by the Seven Sleepers. The individual character of the inscription of the amulet from Suzdal with the names of George and Christina does not contradict the impersonality of the latin formula, in which the addressee receiving God's grace is designated by the Latin "N". Just the opposite: the Russian text and the Latin formula are related texts, containing elements of intertextual discourse about the healing effect of the story of the Seven Youths of Ephesus. This closeness is reinforced by another detail: in both cases, the material carriers (the medallion and the wafers), on which the names of the Seven Sleepers are inscribed, have the same (round) shape. In this case, we can assume an analogy between the wafers of Latin recipes and the Suzdal medallion as healing instruments: manipulations, similar to those prescribed for wafers with the names of the Seven Sleepers written on it (physical contact), could be performed with the medallion. Thus, the combination of images of the Seven Youth of Ephesus and a personified prayer on one of the sides of the Suzdal amulet corresponds to the magico-medical tradition of the Middle Ages.

Hystera: charm and image

The prayer on the other side of the medallion can be translated as follows: *+Lord, help your servants, named in holy baptism Mary and Christina, in daily life Miloslava with her eldest daughter. Amen+*. The inscription is placed in two lines around an image of an anthropomorphic head from which six snake bodies with dragonheads emerge. This image is called *serpentine composition*. But this nomination is not accurate: there are dragons (not snakes) on the medallion. Also, this image is associated with the iconography of the head of the Gorgon Medusa (a female head with snake-like hair), although it differs greatly from the classical gorgoneion (Koval, 2007; Schoneveld, 2014).

The *serpentine composition* visualizes a painful demon. This demon is identified in the context of the apocryphal and heretical traditions of Eastern Christianity as Πατάξαρέα (Pataxarea), Popernitsa, Gillo, ДЪНА (Dena), or Ύστερα (Ystera) (Sokolov, 1889; Sokolov, 1895). A magical Greek formula (the so-called *hystera*-formula) is associated with the last name (Sokolov, 1889; Barabanov, 2003; Björklund, 2016). This charm was represented on many amulets – mostly Byzantine but including several Russian examples. It was placed on the *serpentine composition* side. Inscriptions on the Suzdal *zmeevik*-amulet do not include the *hysteria*-formula. But there is a *serpentine composition,* associated with Ύστέρα. Many Russian *zmeevik*-amulets do not carry any inscriptions at all. So, we can presume that the *serpentine composition* visualized the *hystera*-formula.

Traditionally, the *hystera*-formula and *serpentine composition* are associated with a gynaecological pathology (Drexler, 1899; Barabanov, 2019). This correlates with the fact that the inscription around the *serpentine composition* on the Suzdal amulet contains a prayer seeking help for two women – Maria and Christina. But the prayer inscriptions on some Russian *zmeevik*-amulets contain male names. T.V. Nikolaeva and A.V. Chernetsov described 44 iconographical types of Russian *zmeevik*-amulets, among which there are 10 personal prayers – with 4 female names (Evdotia – type 4; Varvara – types 7, 26; Maria and Christina– type 42) and 4 male names (Vasiliy – type 2; Petr – type 3; Andrey – type 4, 37; Feodor – types 32, 34) (Nikolaeva, & Chernetsov, 1991, Pp.49-85). As we can see, there are more iconographic types with male names than with female ones. It is also important to note that most of the iconographic types of *zmeevik*-amulets described by T.V. Nikolaeva and A.V. Chernetsov are represented by several examples. This is due to the peculiarities of the production of metal cast amulets: the casting mould allowed the production of several items. That is, amulets with male names are quantitatively dominant.

The most noted of the amulets with a male name is the so-called *Chernigov grivna* - a XI-XIIth-century bilingual gold medallion (Figure 5). On one side of the medallion there is an image of the Archangel Michael with a spear-



Figure 5. The *Chernigov grivna*. Gold medallion, diameter 7,3 cm, XI - XIIth c. Byzantine/Rus'.
St. Petersburg (Russia), The State Russian Museum. From: Zalesskaya (2018).

cane in one hand and a special sphere-mirror (a symbol of foresight given to the Archangel by God) in the other. On the sides of the Archangel there are the letters that make up the name MICHAEL (in Old Slavonic). Around the image there is the prayer in Greek "+*Holy, holy, holy...*" (the Greek Trisagion). On the other side there is a *serpentine composition* and two inscriptions around it: the Greek *hystera*-formula and the Slavonic prayer "+*Lord, help your servant, Vasiliy*" (Nikolaeva, & Chernetsov, 1991, Pp. 49-51).

All personal prayers with male names are placed on the side with the *serpentine composition*. On the *Chernigov grivna*, a prayer mentioning Vasily is adjacent to the *hystera*-formula. Statistically there are more male personalized *zmeevik*-amulets than female ones: 4 types with female names, 6 types with male names. That is, the *zmeevik*-amulets could belong to and serve not only women but also men. This is dissonant with the interpretation of *zmeevik*-amulets in the context of gynaecology.

The Suzdal medallion belongs to the "female" group of Russian *zmeevik*-amulets: George and Chrestina are named on the side with the images of the Youths of Ephesus; Maria and Chrestina (mother and daughter) are mentioned in the prayer on the side with the serpentine composition. That is, the gender aspects of the combination "prayer + image" are observed on the Suzdal *zmeevik*. But taking into account the above-mentioned "male dominance" in prayers on the side with the serpentine composition, I suppose that the identification of the disease, that the serpentine-monster-intaglio "sealed", goes beyond the limits of gynaecology. The content of the *hystera*-formula can be interpreted as a description of a hysterical attack or mental disorder.

Hysteria: *Hystera*-attack is more than Wandering womb

In the V-VI centuries, a hysterical attack was interpreted as the wandering of the uterus through a woman's body. Aetius of Amida (502-572) described a hysterical attack as the movement of the uterus through the human body from the abdomen through the arteries and veins to the heart, spinal cord, brain and liver (Granstrem, 1956). This movement was accompanied by pain, suffering, loss of sensitivity, and fading of the pulse. What kind of beast can move through the arteries and veins? – A worm. Early Byzantine medicine was familiar with this beast: Aetius and his contemporary Alexander of Tralles (ca. 525 – ca. 605), the first parasitologist, wrote about worms in the human body, noting that they caused fever, insomnia, anxiety, colic, weakened and irregular pulse, bad breath, changes in mental state, grinding of teeth and rubbing of the lips (Kripouri & Filippou, 2019). The symptoms of the disease (fever, changes in mental state) and its pathogen (worms) are noteworthy.

In the Middle Ages secular medicine experienced a period of stagnation. The Church began to heal people, taking on an aetiological function. Developed religious consciousness against the background of poorly developed medicine equated any disease with demonic possession, which was understood as the establishment of control over a person by a demon. Hysteria was no exception. Theologians explained hysterical symptoms as the invasion of a demon into a person's body. According to the intellectual heritage, the demon had the form of a snake-worm. The term "worm" (or "wyrm") was a common way to refer to dragons in Germanic mythology, particularly in Old English and Old Norse. This suggests the primary association of dragons with serpentine forms. Hence, we can add a dragon to the typological series of images of the disease-causing devil. In this case, the fight against hysteria did not involve 'treatment' (since hysteria is not a disease), but the liberation of the person - i.e. the expulsion of the demon (snake, worm, dragon) from the human body. In accordance with this aetiology, specific methods were developed to counteract demons: prayer and exorcism (Tamm, 2003). This is illustrated by the episodes of hagiographies of St. Theodore of Sykeon (550 - 613), Pope Leo IX (1002 - 1054), St. Hilary of Poitiers (c. 310 – c. 367), St. Felix of Nola (died c. 260) and a corresponding miniature in the Passionaria from Weissenau (Figure 6).

Hysteria (outside of its gender aspects) was a condition



a. b.

Figure 6. Exorcism. Miniatures. Passionary of Weissenau (Cod. Bodmer 127):
a.page 146v; b – page 191r.
b.

in which a person lost control of himself and behaved inappropriately. This was manifested with excitability, fussiness, aggressiveness and incoherent speech. These

symptoms are quite consistent with the metaphors of the *hystera*-formula: "*Hystera, black, blackening, as a snake coil and as a serpent hiss and as a lion roar, and as a lamb, lie down!*" (Destunis, 1889, Spier, 1993; Björklund, 2016). However, these symptoms may be derived not only from a mental disorder, but also from pathological conditions of the body (for example, intoxication or cerebrovascular accident). In this case, we have a rather long list of ailments that occur due to the entry of a demon into the human body - from various infections and poisonings to nervous disorders and neurological pathology.

Thus, the Suzdal amulet is a medallion, on each side of which there is a combination of an image and a prayer, semantically corresponding to each other in the context of the magico-medical tradition of the Middle Ages. The images and prayers were made in the intaglio technique. In other words: the *Suzdal'skii zmeevik* was formally a seal. But all the inscriptions on the medalion are made in positive. Thus, the Suzdal *zmeevik*-amulet is a symbolic seal. The analogy of the medallion with Latin recipes prescribing manipulations with the communion wafers allows us to presume that the Suzdal medallion could well have been an instrument of the exorcist practice of healing a wide range of diseases and ailments - from various infections and poisonings to nervous disorders and neurological pathologies.

Heliotrope: gemmological tradition and lithotherapy

An important element of the apotropaic mechanism of the Suzdal *zmeevik*-amulet was the material from which the medallion was made. This is heliotrope (SiO_2) - a mineral of the quartz group, an opaque dark green variety of cryptocrystalline silica, mostly dense fine-grained quartz, sometimes with admixtures of chalcedony, iron oxides and hydroxides, and other minor minerals, with bright red spots and streaks. This mineral is sometimes called "bloodstone" or "St. Stephen's Stone".

Heliotrope is a mineral known in European gemmology since the II century BC - the Greek author Damigeron (IInd century BC) described the magical and healing properties of the stone: the mineral protects health, shields the body and neutralizes any poisons and those who wear it cannot be deceived (Damigeron, 1881, P.165). In the Ist century AD, Pliny the Elder (AD 23/24 – 79) in his "Natural History" (XXXVII, 165) added to these characteristics the assertion of magicians that the properties of heliotrope are manifested after certain manipulations and the pronunciation of charms. In the Middle Ages, this knowledge was preserved, supplemented and detailed. It is noteworthy that the increase in interest in mineralogy in Byzantium during the X-XI centuries coincides with the revival of the use of *hystera*-amulets among the imperial elite (Spier, 1993, Pp. 32, 50).

Heliotrope is represented in most medieval lapidaries. These texts, in one form or another, repeat the information of Damigeron about the magical and healing properties of the stone. But there is supplementary information provided in the works of medieval authors: heliotrope stops bleeding, enables foresight, exerts its effect not only through physical contact, but also at a distance, and is used by magicians and healers (Lapshin, 2022c).

In the context of our study, the information provided by three authors seems to be especially important. Albert the Great (1200-1280) in his "*De Mineralibus*" mentioned the actions of magicians who used heliotrope in combination with a spell and magical signs (Albert Magnus, 1967, Pp. 88-89). This correlates with the message of Bartholomew the Englishman (1190-1250) concerning magicians/healers who practiced with heliotrope in their hands (Bartholomaeus, 1483, XVI, 12). The combination noted by Albert is noteworthy - heliotrope + spell + signs/images. The Suzdal medallion is quite consistent with this: it is made of heliotrope, has inscriptions and images with magical properties.

The information in Volmar's "Stone Book" (*Steinbuch*) is especially interesting. It is written there that, upon physical contact with a sick person, heliotrope stops the bleeding, expels "green, icy and black vermin (toads)" and cures fever (Volmar, 1877, 445-465). This is almost a description of the *Suzdal'skii zmeevik*: the side with the Seven Sleepers "works" against fever, the side with the *serpentine composition* "works" against "vermin" and all this is enhanced by the properties of heliotrope.

I have deliberately limited the list of lapidaries to the High Middle Ages – the time of the creation of the Suzdal medallion. It is important to note that the amulet is made of a rare mineral that had special lithotherapeutic properties and was used in magical and healing practices. The gemmological tradition of heliotrope continued to develop in the Late Middle Ages and in the Early Modern period.

An important characteristic of the Suzdal heliotrope amulet is its colour - dark green with red spots and streaks. In sympathetic medicine and lithotherapeutic tradition, the colour of the healing remedy was supposed to correspond to the colour of the disease (Mastrocinque, 2011). The liquid secretions on which the health of the body depended were red (blood), black (when the intestines bled), green or clear (gastric juices), and white (milk). Sympathetic medicine prescribed remedies according to these colors: for example, haematite (iron oxide compound with the formula Fe_2O_3) was used to protect and treat red-brown organs such as the liver and kidneys; green-colored remedies were used to treat gastric and intestinal diseases, as well as gynaecological pathologies. The ideas of sympathetic medicine arose in Antiquity and were widespread in the Middle Ages. In medieval Christian and Muslim traditions it was argued that God, or Allah, intentionally created

objects in the world (minerals and plants) that resembled body parts that could be healed. Intellectuals of the XVI-XVIIth centuries (Swiss physician Paracelsus (1493-1541), German mystic Jakob Boehme (1575-1624), English botanist William Cole (1626-1662), and others) systematized and developed these ideas. This is how the Doctrine of Signatures was formulated.



Figure 7. The *Przemysl gemma*. Helitrope intaglio, dimensions 5,2 × 4,7 cm, X - XIIth c. Byzantine.
Przemysl (Poland), National Museum of the Przemyśl Region. From: Sliwa (2014).

Heliotrope was valued in sympathetic medicine because it combined the properties of green, red, black and brown stones - that is, it was a remedy seen as counteracting various diseases. This corresponds to the interpretation of images and inscriptions on the Suzdal heliotrope intaglio presented above. The Suzdal heliotrope amulet is a unique phenomenon, but it is not an exception. Another *hystera*-amulets made of heliotrope is an engraved gemma from Przemyśl (Subcarpathian Voivodeshi, Poland) (Figure 7). To these two artifacts we can add a variegated jasper intaglio – the so-called *Seal of St. Servatius* (Maastricht, Netherlands) (Figure 8). All three artifacts are contemporaneous, similar in iconography of the *serpentine composition*, and have a rounded shape. The difference in materials does not contradict this analogy: in medieval gemmology, variegated jasper was valued no less than heliotrope.



Figure 8. The *Seal of St. Servatius*. Jasper intaglio, diameter 5,4 cm, X - XIIth c. Byzantine.
Maastricht (Netherlands), The Treasury of the Basilica of Saint Servatius.
Photo by the author.

Following the analogy with the *Seal of St. Servatius* we can assume that the Suzdal medallion and the Przemyśl *gemma* had a metal frame. The amulets from Suzdal and Przemyśl have the same type of surface chips. Their morphology indicates that a gemma was removed from an enclosing frame. It is likely that the original setting was silver, because according to the lapidary tradition of the Middle Ages, a "silver enclosure" was recommended for heliotrope.

Synergy of interaction between the elements of the Suzdal *zmeevik*-amulet

The apotropaic mechanism of the Suzdal amulet consisted of several elements: a mineral (heliotrope, green with red spots and streaks), images and inscriptions on both sides. Their interaction provided a synergistic effect - the medallion was a universal tool (protection and remedy) for many ailments. The round shape of the medallion provided the unification of the therapeutic and magical functions of prayer inscriptions, images and mineral: the prayer located in a circle provided permanent self-reproduction; images on different sides of the medallion "worked" without interfering with each other; the properties of the material (heliotrope) complemented and strengthened all this; silver closed the phylacterium.

Above we noted the analogy between the Suzdal medallion and wafers with names of the Seven Sleepers from Latin healing formulas. This analogy has a philological aspect. A Communion wafer is a synonym of the Host. A "wafer" also means a thin sheet made of moistened flour, used to enclose a powdered medicine, a tablet. This understanding of the term "wafer" goes back to the Christian concept of God's grace enclosed in the Communion wafer. Certainly, a medallion made of heliotrope with Christian images could not be identical with the Eucharistic bread, but conceptually it was close: its elements interacting generated an apotropaic effect. In other words: the Suzdal medallion fits well into the tradition of medical sphragides (Dasen, 2011). Thus, the Suzdal amulet was a synergistic combination of mineral, images, inscription and form.

Conclusion

The *Suzdal'skii zmeevik* is an artifact of the elite culture of Medieval Rus'. It embodies the theological (canonical, apocryphal) and natural scientific (medical, gemmological) knowledge accumulated in the Mediterranean and Europe by the beginning of XIII century. The creator and customer of this amulet had this knowledge (to varying degrees, perhaps).

The Suzdal *zmeevik*-amulet represents the healing practices of the Middle Ages. This is not an object of personal piety, but a piece of personal protective equipment and a medical instrument (or remedy) used in

the case of illness of one of the three persons named in the prayer inscriptions. Each of the elements of the apotropaic mechanism had corresponding properties - it affected the illness and ensured the reproduction of a healing prayer. The list of diseases against which this amulet could be employed is wide, ranging from infections and viral diseases to mental disorders and neurological pathology. The user of the amulet may not have had the full knowledge and experience encoded in it, but she was aware of the effects produced by the apotropaic mechanism of the amulet.

Having come to Rus' from Byzantium together with Christianity and Greek-language knowledge, medallions with a *hystera*-formula, a *serpentine composition* and a Christian image were a new stage in the development of the tools of magical medicine (Drexler, 1899; Barabanov, 2019; Björklund, 2017). Using modern terminology, Byzantine *hystera*-amulets and Medieval Russian *zmeevik*-amulets can be defined as products for medical purposes, representing a tradition that has been developed over a period of thousand years. The Suzdal *zmeevik*-amulet illustrates this.

The birth of psychotherapy as a science occurred in the XIX century. When historians and archaeologists were discussing the details of the *hystera*-formula translations and the iconography of the *serpentine composition* of amulets-pendants, a hysteria-diagnosis was adopted for an ungovernable emotional excess. The well-known term "hysteria", etymologically derived from the name of the demon Ύστέρα and from the tradition of demonic exorcism, was used to describe a mental disorder. Apotropaic mysticism was gradually overcome, and medical knowledge acquired a natural-scientific character. At that time G. Filimonov discovered and described Suzdal heliotrope intaglio. And the long history, of which Suzdal phylacterium was a part, reached a new level of development.

References

Albert Magnus, (1967) Book of Minerals. Transl. by D.Wyckoff. Pp. 88-89. Clarendon press.

Almazov, A. I. [Алмазов, А. И.] (1900) Vracheval'nyye molitvy: K materialam i issledovaniyam po istorii rukopisnogo russkogo trebnika. [Healing Prayers: Materials and Studies on the History of the Manuscript Russian Trebnik. -Врачевальные молитвы: К материалам и исследованиям по истории рукописного русского требника.]. Ekonomicheskaya tipografiya.

Barabanov, N. D. [Барабанов Н. Д.] (2003) K istorii vizantiyskikh narodnykh verovaniy. Istera. [On the history of Byzantine folk beliefs. Istera. - К истории византийских народных верований. Истера.] Antichnaya drevnost' i sredniye veka [Ancient antiquity and the Middle Ages. - Античная древность и средние века.] Vol. 34. Pp. 322-347. Ural State University.

Barabanov, N. D. [Барабанов Н. Д.] (2019) Volosy-zmei. K probleme semantiki vizantiyskikh filakteriyev s "isteroy". [Hair-snakes. On the problem of semantics of Byzantine phylacteries with "hysteria". - Волосы-змеи. К проблеме семантики византийских филактериев с "истерой".] Vestnik Volgogradskogo gosudarstvennogo universiteta. Seriya 4, Istoriya. Regionovedeniye. Mezhdunarodnyye otnosheniya. [Bulletin of Volgograd State University. Series 4, History. Regional studies. International relations. - Вестник Волгоградского государственного университета. Серия 4, История. Регионоведение. Международные отношения. – 2019.] – Vol. 24, N° 6. Pp. C. 316 –330. Volgograd State University.

Bartholomaeus, Anglicus (1483) Liber de proprietatibus rerum. Husner G. Publ.

Biserova A. V., & Lapshin A. G. [Бисерова, А. В., & Лапшин, А. Г.] (2019) Suzdal'skij zmeevik v kontekste istorii mediciny [Suzdal Hystera-amulet in the Context of History of Medicine - Суздальский змеевик в контексте истории медицины.] In Suzdal'skij sbornik – 2018 [Suzdal Collection – 2018. - Суздальский сборник – 2018.]. Pp. 14-20. Tranzit-IKS Publ.

Björklund, H. (2016) Classical Traces of Metamorphosis in the Byzantine Hystera Formula. Dumbarton Oaks Papers. Vol. 70, Pp. 151-166. Trustees for Harvard University.

Björklund, H. (2017) Protecting Against Child-Killing Demons: Uterus Amulets in the Late Antique and Byzantine Magical World. Faculty of Arts at the University of Helsinki.

Bonser, W. (1945) The Seven Sleepers of Ephesus in Anglo-Saxon and Later Recipes. Folklore. Vol. 56, N°2, Pp. 254-256. Abingdon.

Damigeron, (1881) De Lapidibus. In Orphei Lithica. Accedit Damigeron de lapidibus. Recens. E. Abel. Pp. 157-195. Calvary.

Dasen, V. (2011) Magic and Medicine: Gems and the Power of Seals. In Gems of Heaven. Ed. by C. Entwistle & N. Adams. Pp. 69-74. British Museum.

Destunis, G. S. [Дестунис, Г. С.] (1889) Yeshche o "zmeevikakh": Vzglyad na Kruzevo ob"yasneniye grecheskoy nadpisi, nachinayusheisya so slov Ýstéra. [More about the "zmeeviks": A look at Kruse's interpretation of the Greek inscription beginning with the word Ύστέρα. - Еще о «змеевиках»: Взгляд на Крузево объяснение греческой надписи, начинающейся со слова Ύστέρα.] Zapiski Imperatorskogo Russkogo Arkheologicheskogo obshchestva [Notes of Imperial Russian Archaeological Society - Записки Императорского Русского

археологического общества.]. T. IV. Pp. 100-119. Tipografiya IAN.

Drexler, W. (1899) Alte Beschwörungen: 1. Byzantinische Beschwörungen der Ystera und ein italienisches Gebet gegen das male del fianco e di matron. Philologus. Zeitschrift für das klassische Altertum. Vol. 12 (58), N°. 1–4. Pp. 594-608.

Ekirch, A. R. (2015) Sleep Medicine in the Middle Ages and the Renaissance. In Sleep Medicine: A Comprehensive Guide to Its Development, Clinical Milestones, and Advances in Treatment. Ed. by S. Chokroverty & M. Billiard. Pp. 63–67. Springer.

Filimonov, Yu. D. [Филимонов, Ю. Д.] (1876) Zmeevik suzdal'skogo Rozhdestvenskogo sobora. [Zmeevik from the Suzdal Nativity Cathedral. - Змеевик суздальского Рождественского собора.] In Vestnik obshchestva drevnerusskogo iskusstva pri Moskovskom Publichnom muzee [Bulletin of the Society of Old Russian Art at the Moscow Public Museum. - Вестник общества древнерусского искусства при Московском Публичном музее.] Pp. 73-75. Moscow University Printing House.

Ghippius A. A., & Zaliznyak A.A. [Гиппиус А. А., & Зализняк, А. А.] (1998) O nadpisyah na Suzdal'skom zmeevike [About the Inscriptions on the Suzdal Zmeevik - О надписях на Суздальском змеевике] Balto-slavyanskie issledovaniya. - 1997 [Balto-Slavic studies - 1997. - Балто-славянские исследования - 1997.] Pp. 540-562. Indrik Publ.

Gnutova, S. V. & Zotova, E. Ya. [Гнутова, С. В. & Зотова, Е. Я.] (2000) Kresty, ikony, skladni. Mednoye khudozhestvennoye lit'ye XI — nachala XX veka. [Crosses, icons, triptychs. Copper artistic casting of the XIth - early XXth centuries. - Кресты, иконы, складни. Медное художественное литье XI — начала XX века.] Interbook-business Publ.

Granstrem, E. E. [Гранстрем, Е. Э.] (1956) Otryvok meditsinskogo traktata Aetsiya Amidskogo v spiske X-XI veka. [Excerpt of the medical treatise of Aetius of Amida in a X–XI century list - Отрывок медицинского трактата Аэция из Амиды в списке X–XI века.] Vizantiyskiy Vremennik [Византийский временник]. Tom IX. Pp. 159–169. Nauka Publ.

Koval, V. Yu. [Коваль, В. Ю.] (2007) O drevnerusskikh amuletakh-zmeevikakh [On the Medieval Russian zmeevik-amulets. - О древнерусских амулетах змеевиках.] Kratkiye soobshcheniya Instituta arkheologii [Brief Communications of the Institute of Archaeology. - Краткие сообщения Института археологии.] Vol. 221. Pp. 54-63. The Institute of Archaeology of the Russian Academy of Sciences.

Kripouri, P., & Filippou, D. (2019) On the Work of Alexander of Tralles. Acta medico-historica Adriatica. Dec 18, 17(2), Pp. 295-304. Croatian Scientific Society for the History of Health Culture.

Lapshin A. G. [Лапшин, А. Г.] (2020a) Suzdal'skij zmeevik v kontekste istorii mediciny - 2: syuzhet o Semi otrokah efesskih [Suzdal Hystera-amulet in the Context of History of Medicine - 2: The Story of Seven Sleepers of Ephesus. - Суздальский змеевик в контексте истории медицины - 2: сюжет о Семи отроках эфесских.] In Suzdal'skij sbornik - 2019 [Suzdal Collection – 2019 - Суздальский сборник – 2019] Pp. 139-146. Tranzit-IKS Publ.

Lapshin A. G. [Лапшин, А. Г.] (2020b) Verbal'naya formula Suzdal'skogo zmeevika [Verbal Formula of the Suzdal Hystera-amulet. - Вербальная формула Суздальского змеевика]. Vestnik Vladimirskogo Gosudarstvennogo Universiteta. Seriya: social'nye i gumanitarnye nauki. [Bulletin of Vladimir State University. Series: social and humanitarian sciences. - Вестник Владимирского государственного университета. Серия: Социальные и гуманитарные науки.] N° (25). Pp. 16-24. Vladimir State University.

Lapshin A. G. [Лапшин, А. Г.] (2020c) K voprosu o naznachenii Suzdal'skogo zmeevika. [About Destination of the Suzdal Hystera-amulet. - К вопросу о назначении Суздальского змеевика] Arheologiya Vladimiro-Suzdal'skoj zemli. [Archaeology of Vladimir-Suzdal Land. - Археология Владимиро-Суздальской земли.] Vol. 10. Pp. 146-152. The Institute of Archaeology of the Russian Academy of Sciences.

Lapshin A. G. [Лапшин, А. Г.] (2022a) Suzdal'skij zmeevik i gemma iz Peremyshlya. [Suzdal Hystera-amulet and the Gem from Przemysl. - Суздальский змеевик и гемма из Перемышля.] In Materialy XXVI Mezhdunarodnoj kraevedcheskoj konferencii – Vladimir, 16.04.2021. [Proceedings of the XXVI International Conference of Local History – Vladimir, 16.04.2021. - Материалы XXVI Международной краеведческой конференции – Владимир, 16.04.2021.] Pp. 29-33. Vladimir regional scientific library.

Lapshin A. G. [Лапшин, А. Г.] (2022b) O poddelke Suzdal'skogo zmeevika. [About Imitation of Suzdal Hystera-amulet. - О подделке Суздальского змеевика.] Arheologiya Vladimiro-Suzdal'skoj zemli. [Archaeology of Vladimir-Suzdal Land. - Археология Владимиро -Суздальской земли.] Vol. 12. Pp. 131-139. The Institute of Archaeology of the Russian Academy of Sciences.

Lapshin A. G. [Лапшин, А. Г.] (2022c) Suzdal'skij zmeevik v kontekste istorii mediciny - 3: medal'on iz heliotropa [Suzdal Hystera-amulet in the Context of History of Medicine - 3: a Medallion Made of Heliotrope. - Суздальский змеевик в контексте истории медицины - 3: медальон из гелиотропа.] In Suzdal'skij sbornik - 2022. [Suzdal Collection – 2022. - Суздальский сборник – 2022.] Pp. 17-25. Tranzit-IKS Publ.

Lapshin A. (2023) The "Seven Sleepers": Materials from North-East Rus'. EURAS: Journal of Social Sciences (EJOSS). Vol. 3, Iss. 2, October 2023. Pp. 145-161. Eurasian Universities Union. – URL: https://ejoss.euras-edu.org/2023-october-volume-3-issue-2/

Makarov, N. A. & Zaitseva, I. E. [Макаров, Н. А. & Зайцева, И. Е.] (2023) Hristianskaya plastika: podveski-obrazki i zmeeviki. [Christian Plastic Art: Icon Pendants and zmeeviks. - Христианская пластика: подвески-образки и змеевики.] In Arkheologiya Suzdal'skoy zemli. [Archaeology of the Suzdal' Country. - Археология Суздальской земли.] Vol. 2. Pp. 158-183. The Institute of Archaeology of the Russian Academy of Sciences.

Mastrocinque, A. (2011) The Colours of Magical Gems. In Gems of Heaven. Ed.by C. Entwistle & N. Adams. Pp. 62-68. British Museum.

Medyntseva, A. A. [Медынцева, А. А.] (2000) Gramotnost' v Drevney Rusi: po epigraficheskim pamyatnikam X – pervoy poloviny XIII v. [Literacy in Old Rus': Based on Epigraphic Monuments of the Xth – first half of the XIIIth century - Грамотность в Древней Руси: По памятникам эпиграфики X — первой половины XIII в.]. Nauka Publ.

Milutenko, N. I. [Милютенко, Н. И.] (2021) Suzdal'skij i peremyshl'skij zmeeviki: molitva i zaklinanie. [Gorgoneia from Suzdal and Przemysl: the Prayer and the Spell. - Суздальский и перемышльский змеевики: молитва и заклинание.] Slovesnost' i istoriya. [Texts and History. – Словестность и история.] N° 1. Pp. 30-61. The Institute of Russian Literature (Pushkinskij Dom) of the Russian Academy of Sciences.

Nechaev, S. D. [Нечаев, С. Д.] (1826). Zamechaniye o starinnom mednom obraze. [Note on an Old Copper Image. - Замечание о старинном медном образе.] Trudy i zapiski Obshestva istorii i drevnostey rossiyskih. [Proceedings and Notes of the Society of Russian History and Antiquities. – Труды и записки Общества истории и древностей российских.] Part III, Book 1, Pp. 131-136. Moscow University Printing House.

Nikolaeva, T. V., & Chernetsov, A. V. [Николаева, Т. В., & Чернецов, А. В.] (1991) Drevnerusskie amulety-zmeeviki [Old Russian Zmeevik-Amulets Древнерусские амулеты-змеевики]. Nauka Publ.

Oleinikov, O.M. [Олейников О. М.] (2016) Novyye nakhodki amuletov-zmeevikov v Velikom Novgorode [New finds of zmeeviks (amulets bearing a snake image) in Velikiy Novgorod. - Новые находки амулетов-змеевиков в Великом Новгороде.] Rossiyskaya arkheologiya. [Russian archeology. - Российская археология.] N° 4 C. 75-89. Nauka Publ.

Passionary of Weissenau. Cod. Bodmer 127. Fondation Martin Bodmer, Cologny. - DOI: 10.5076/e-codices-cb-0127 (http://dx.doi.org/10.5076/e-codices-cb-0127)

Papanikola-Bakirtzi, D. (2002) Everyday life in Byzantium. Byzantine Hours. Works and days in Byzantium. Exhibition catalogue. Thessaloniki, White Tower, October 2001-January 2002. Hellenic Ministry of Culture.

Ryndina, A. V. [Рындина, А. В.] (1972) Suzdal'skij zmeevik. [The Suzdal Zmeevik. - Суздальский змеевик.] In Drevnerusskoe iskusstvo: hudozhestvennaya kul'tura domongol'skoj Rusi. [Old Russian art: artistic culture of pre-Mongol Rus'. - Древнерусское искусство: художественная культура домонгольской Руси.]. Pp.217-234. Nauka Publ.

Ryndina, A. V. [Рындина, А. В.] (1988) 1000-letiye russkoy khudozhestvennoy kul'tury. [1000th Anniversary of Russian Artistic Culture. - 1000-летие русской художественной культуры.] Museum Wiesbaden.

Schepkina, M. V. [Щепкина, М. В.] (1972) O proiskhozhdenii Uspenskogo sbornika. [On the Origin of the Assumption Codex. - О происхождении Успенского сборника.] In Drevnerusskoe iskusstvo: Rukopisnaya kniga [Old Russian Art: Handwritten book. - Древнерусское искусство: Рукописная книга.]. Pp. 74-80. Nauka Publ.

Schoneveld, K. (2014) Ein frühbyzantinisches Bronzeamulett im Römisch-Germanischen Zentralmuseum: Zur Genese der Mittelbyzantinischen Hystera-Amulette. Jahrbuch des Römisch-Germanischen Zentralmuseums. T. 61, N° 1, Pp. 267–306. Verlag des Römisch-Germanisches Zentralmuseums.

Shevchenko, Yu. Yu. [Шевченко, Ю. Ю.] (2009) Bogoroditsa Spileotissa na drevnih khristianskih filakteriyah c izobrazheniyami serpentarid [Our Lady of Spileotissa on Old Russian Christian Phylacteries with Images of Serpentarides - Богородица Спилеотисса на древних христианских филактериях с изображениями серпентарид]. In RusAr: Elektronnaya

nauchnaya biblioteka po istorii drevnerusskoy arkhitektury [RusArch: Electronic scientific library on the history of old Russian architecture. - РусАр: Электронная научная библиотека по истории древнерусской архитектуры.] – URL: http://rusarch.ru/shevchenko4.htm

Sokolov, M. I. [Соколов, М. И.] (1889) Apokrificheskiy material dlya ob'yasneniya amuletov, nazyvayemykh zmeevikami [Apocryphal material for the interpretation of amulets called "zmeeviks". - Апокрифический материал для объяснения амулетов, называемых змеевиками.]. Zhurnal ministerstva narodnogo prosveshcheniya. [Journal of the Ministry of Public Education. - Журнал Министерства народного просвещения.] N° 6, Pp. 339-368. A type. V.S. Balasheva and Co.

Sokolov, M. I. [Соколов, М. И.] (1895) Novyy material dlya ob'yasneniya amuletov, nazyvayemykh "zmeevikami". [New material for the interpretation of amulets called "zmeeviks". - Новый материал для объяснения амулетов, называемых «змеевиками».] In Drevnosti: Trudy Slavyanskoy komissii Moskovskogo arkheologicheskogo obshchestva. [Antiquities: Proceedings of the Slavic Commission of the Moscow Archaeological Society. - Древности: Труды славянской комиссии Московского археологического общества.] T. I, Pp. 134-202. Moscow Archaeological Society.

Sliwa, J. (2014) Gemma magiczna ze zbiorów Muzeum Narodowego Ziemi Przemyskiej. [Magic gem from the collection of the National Museum of the Przemyśl Region.] Materialy I studia muzealne. [Museum materials and studies.] Tom VIII. S. 5-20. MNZP Publ.

Speransky, M. N. [Сперанский, М. Н.](1893) O zmeevike s sem'yu otrokami [About the Zmeevik with Seven Youths. - О змеевике с семью отроками.]. In Arkheologicheskiye izvestiya i zametki, izdavayemyye Imperatorskim Moskovskim Arkheologicheskim Obshchestvom [Archeological news and notes issued by the Imperial Moscow Archaeological Society. - Археологические известия и заметки, издаваемые Императорским Московским Археологическим Обществом] T. I, N° 2, Pp. 49-60. Printing house of A.I. Mamontov.

Spier, J. (1993) Medieval Byzantine Magical Amulets and Their Tradition. Journal of the Warburg and Courtauld Institutes. Vol. 56, Pp. 25–62. The Warburg Institute University of London.

Tamm, M. (2003) Saints and the Demoniacs: Exorcistic Rites in Medieval Europe (XIth - XIIIth Century). FOLKLORE: Electronic Journal of Folklore. N° 23, July 2003. Pp. 7-24. - DOI:10.7592/FEJF2003.23.exorcism (https://www.folklore.ee/folklore/vol23/).

Volmar, (1877) Das Steinbuch: Ein Altdeutsches Gedicht Von. Verlag von G. Henninger.

Zalesskaya, V. N. [Залесская, В. Н.] (1974). K voprosu ob atributsii suzdal'skogo zmeevika: V svyazi so stat'ej A. V. Ryndinoj "Suzdal'skij zmeevik" [On the Issue of Attribution of the Suzdal zmeevik: In Connection with the Article by A.V. Ryndina "Suzdal'skij zmeevik". - К вопросу об атрибуции суздальского змеевика: В связи со статьей А. В. Рындиной "Суздальский змеевик".] Vizantijskij vremennik [Византийский временник]. Vol. XXXVI. Pp. 184-188. Nauka Publ.

Zalesskaya, V. N. [Залесская, В. Н.] (2018) Hristianstvo i magiya: zagadochnyy suzdal'skiy zmeevik-obereg XII v. velikogo knyazya Mstislava [Christianity and magic: The XIIth century Mysterious Suzdal zmeevik-amulet of the Grand Duke Mstislav. - Христианство и магия: загадочный суздальский змеевик-оберег XII в. великого князя Мстислава.]. Kulturologia.ru – URL: https://kulturologia.ru/blogs/050918/40369/

"THERE IS A CERTAIN ANIMAL THAT HAS A STONE ON ITS HEAD": ANIMAL FOREHEAD STONES AS AMULETS AND TALISMANS

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Summary
This work highlights a geographically, culturally and temporally diverse range of accounts regarding animals reputed to have a precious stone either atop or inside their heads. Having explored the key shared features across these accounts, it is clear that the luminous gemstones atop the heads are a rare treasure for the would-be captor. Once secured, they could operate as amulets, attracting prosperity, luck or opportunities to the new owner, occasionally conditional upon his or her performing certain propitiating rituals. In contrast, internal stones were generally said to be found in 'ordinary', rather than legendary, animals. Their power was reasoned to operate sympathetically, and these stones were used both therapeutically and as amulets.

Keywords: Gemstones, symbolic anthropology, folklore, snakes, history of magic

Introduction

This paper considers the folklore of animals said to be in possession of forehead stones – often jewels or gemstones – which they either wore visibly on the forehead or kept hidden inside the cranium. The stones were reputed to have been forcibly captured from their hosts and kept by the human victor as amulets and talismans – items thought to attract positive forces to, or repel negative forces from, the owner. Many such amulets were believed to operate innately – that their qualities would simply accrue to the owner as a benefit of possession – whereas others were reportedly demanding of their new owners before they would co-operate and bestow their magic. The paper has a broad geographic scope and considers key features and parallels across the various highlighted folk stories.

Methodology

The primary aim of this research is to explore the accounts of creatures with exceptional stones situated atop or inside their heads in order to determine the amuletic utility of these stones – both to the original hosts, and to the new owners when harvested. In this study, the primary methodology used was comparative; relying on various historical, folkloric and ethnographic sources, which were analysed, compared, contrasted and synthesised. The approach is intentionally interdisciplinary in nature, drawing on the study of history, folklore, folk beliefs and symbolic anthropology. The scope is geographically, culturally and temporally wide, and the juxtaposition of a broad scope of accounts allows novel conclusions to be drawn.

Wider context

Jewels and gemstones worn on the central forehead are a ubiquitous motif in modern Western culture, so much so that we rarely give thought to the nuances of their intended representations or communications to the observer. It is important context that legends of animals with forehead stones did not arise in a vacuum. Material culture provides tantalising clues as to the historical importance of forehead marks and especially jewels worn at the forehead. The Punic people or Carthaginians of the western Mediterranean (c. 814 BC – c. 152 BC), produced grinning terracotta masks and glass beads depicting human heads. Adriano Orsingher (2014) produced a chrono-typological sequencing of the mask forms, identifying the stages of development in design. Almost all of the masks considered in this study bore forehead marks – either in the form of raised circular protuberance(s), or more detailed symbols (Orsingher, 2014, figs. 3 and 4). The purpose of the masks is unanimously recognised as apotropaic (Orsingher, 2014, p. 147 – see also Orsingher 2018 and 2022 for further consideration of the masks). It has been suggested that the forehead marks may have served to enhance this power; alternatively, they have been considered as symbols of deities, copies of paintings, tattoos, jewellery, warts or feminine make-up (Stern, 2001, pp. 109-10; Orsingher, 2014, p. 154; López-Bertran & Garcia-Ventura, 2016, pp. 210-11).

Carthaginian glass face beads have a distinctive style, sporting large staring eyes and curled hair (Figure 1). It has been theorised that beads like this were intended to depict the premier Carthaginian god Baal Hammon, or lesser deities (summarised in Malaman & Spagiari, 2022, p. 225) although contending views highlight that it was not the Phoenician tradition "to represent their great gods on small amulets" (Ancient Glass Blog, 2015; Seefried, 1979, p. 26). Numerous examples of these face beads have a forehead mark, either flat to the surface, or as a raised protuberance. On the exemplar at Figure 1



Fig. 1 – Glass face bead, Phoenician or Carthaginian, IVth-IIIrd century BC, Metropolitan Museum of Art, New York. Item: 17-194-720

the forehead mark is the same colour and shape as the earrings, suggesting jewellery. It seems likely that, serving a similar function to the masks, the beads were apotropaic, with the staring eyes serving a similar function to the 'evil eye' - to divert negative forces from the wearer (Seefried, 1979, p. 26), and the forehead mark was an additional apotropaic device intended to complement or increase this apotropaic power. This hypothesis is strengthened by the finding that, when discovered amongst grave goods, the face beads were frequently strung together with 'eye' beads (Malaman & Spagiari, 2022, p. 237).

In the second century AD, Roman poet Lucian of Samosata (c. 125 – after 180) described a statue of Syrian goddess Hera-Atargatis at the temple of Hierapolis Bambyce (now Manbij, Syria) (Luc. Syr. D. 32). The statute had a gem on the head, which glowed brightly at night:

> … But the greatest wonder of all I will proceed to tell: she bears a gem on her head called a Lychnis; it takes its name from its attribute. From this stone flashes a great light in the night-time, so that the whole temple gleams brightly as by the light of myriads of candles, but in the day-time the brightness grows faint; the gem has the likeness of a bright fire (Strong, 1913, p. 72)

The name of the stone, *lychnis*, derives from the Greek word for lamp (Adams, 2015, p. 152). Pliny the Elder (AD 23/24 – 79) in his *Historia Naturalis* compared the *lychnis* to a similar red fiery stone named *carbunculus* (Plin. Nat. 37.35; Bostock & Riley, 1857, pp. 424-5). Accounts of the *carbunculus* or carbuncle stone persisted into European works of the Middle Ages, and it became associated with animal forehead stones (discussed further below). The purpose of the *lychnis* stone on this statute is unclear, but it is likely that tales of the stone lighting up in this manner would have been considered proof of the goddess' divine power.

On the other side of the world, a very different forehead ornament tradition occurred in the South American Mayan civilization (c. 2000 BC – 1697 AD). Rossi et al (2020) analysed Mayan headbands and diadems (forehead ornamentation attached to the headbands), exploring how notions of the head and forehead were considered by Mayans to be the locus of spirit and identity (Rossi et al, 2020, p. 69, 85) (Figure 2). In the highly polytheistic Mayan culture, deities were, in part, identified by their unique forehead ornamentation (Rossi et al., 2020, pp. 71-2). Elaborate headdresses with prominent diadems were worn by Mayans in representation of deities (Rossi et al., 2020, p. 72). Additionally, headbands and diadems were used to signify Mayan identity, social status and political position (Rossi et al., 2020, pp. 81-7). As can be seen in Figure 2, a Mayan pendant of a person wearing a diadem, the headdress is more than half the length and features a prominent protrusion at the forehead – this was surely designed to draw attention to the representation, rather than to the one bearing it. This impression is reinforced with the head of the bearer being lowered and overshadowed by the headwear.



Fig. 2 – Mayan pendant, VIIth – IXth century. Metropolitan Museum of Art, New York. Accession number: 2015.677

From this very brief consideration of a few examples, it is clear that in a variety of times and cultures, forehead ornamentation has served a variety of functions when worn by human or anthropomorphic characters. It is in this context and broad range of possible symbolic meanings that accounts regarding animal forehead stones must be placed.

Visible animal forehead stones

Animal forehead stones principally take two forms: luminous jewels displayed atop the head and stones

hidden inside the cranium. In 1938, American geologist Sydney Ball observed that in numerous cultures, where visible luminous forehead jewels were ascribed to animals, the creatures in question were generally snake-like (Ball, 1938, pp. 501-5).

Dominica

Folklore from the Kalinago peoples of Dominica tells of a giant serpent, named Bakwa, who swam from the South American mainland to the island; when it slithered ashore, its body formed the impressive geological formation *L'Escalier Tête Chien*. The formation, in English 'Stairway of the Boa', is a magmatic dyke (formed from lava flowing into a crack in an existing rock body and solidifying), weaving from the sea to a cave atop the cliffside. Bakwa's forehead jewel is mentioned briefly in a short seventeenth-century work by Jesuit missionary Jacques Bouton (1592?-1658), who spent three months in the French Antilles:

> They say that there is in Dominica a snake which makes itself now big, now small; that it has, in the middle of its forhead, a carbuncle or very brilliant stone which it removes when it wants to drink, and then puts back in place; and that nobody can or dare go to see in its cave unless he has previously fasted for three days and abstained from his wife; otherwise he would not see it, or would be in danger of being 'matte' by it, that is to say, killed (Bouton, 1640, p. 108; Taylor, 1952, p. 273)

Bouton's text warns the reader that to be successful in capturing the snake's stone, the hunter must fast and abstain from sexual relations for three days (Bouton, 1640, p. 108). This has parallels with the lore of the unicorn: German Benedictine abbess Hildegard von Bingen (1098-1179) added to the pre-existing legend of the unicorn that the creature could only be killed when it was distracted by pure young females (Duffin, 2007, p. 214). Additionally, there are parallels with the passage on the ammonite in the fourth century lapidary poem *Lithica* by Pseudo-Orpheus. Here, the stone required the user to abstain from sex, public baths and certain foods for ten days, pamper the ammonite, and make special sacrifices and spells before it would work its magic (Fincher, 2024, p. 15, lines 366-87; see "Snakestone Amulets and Talismans" in this collection of articles). Requirements such as these are intended to convey how difficult it is to obtain the item (or coax out its magical powers) and thus increase the sense of rarity and exclusivity of the item and, correspondingly, its desirability.

In addition to Bouton's text, a further account of Bakwa and his stone was collected by British anthropologist, Douglas Taylor (1901-1980), from Fanfan Brunie (dates unknown) of St Cyr, Dominica, between 1938 and 1941. Brunie described the boa as "… big, big, big; has a diamond crest on his head; and he crows just like a cock." (Taylor, 1952, p. 273). Furthermore, British historian John Oldmixon (1673-1742) also reported a Dominican tale of a "vast monstrous Serpent" that lived in an inaccessibly deep area at the converged feet of several mountain slopes:

> They affirm'd, there was in the Head of it a very sparkling stone, like a Carbuncle of inestimable price; that the Monster commonly veil'd that rich jewel with a thin moving skin like that of Man's Eye-lid, and when it went to drink, or sported it self in the deep Bottom, it fully discover'd it, and the Rocks all about receiv'd a wonderful Lustre from the Fire issuing out of that precious Gem (Oldmixon, 1708, p. 188)

Each of these accounts stresses the brightness and lustre of the serpent's forehead gem – a feature which will be explored further below.

North America

Henry Timberlake (1730/5-1765) was an emissary from the British colonies to the Cherokee of North America in 1761-2; Timberlake's accounts of his journeys were published posthumously. In a passage regarding precious stones, he noted that one stone was "remarkable for its brilliancy and beauty, but more so for the extraordinary manner in which it was found" (Timberlake, 1765, p. 48). The stone was said to grow on the head of a "monstrous serpent", whose dwelling was discovered because of the stone's brilliant radiance (Timberlake, 1765, p. 48). Timberlake described the stone as a "diadem" (Timberlake, 1765, p. 48). The stone was reportedly captured by a man who, after encasing himself in leather to withstand the bites of the monster snake and its smaller attending snakes, killed the snake and took its gem (Timberlake, 1765, p. 48). Timberlake gives no further details regarding the use of the captured stone, but as it was said to be in possession of 'a conjurer' we may assume a magical use.

James Mooney (1861-1921) (Figure 3), an American ethnographer who lived for several years among the Cherokee, recorded an alternative version of the Cherokee 'monster snake' legend in his *Myths of the Cherokee* (1902). The snake was named Uktena and had been a man until he was transformed by the Little People (a race of supernatural beings) into a "monster snake" with a "bright, blazing crest like a diamond upon its

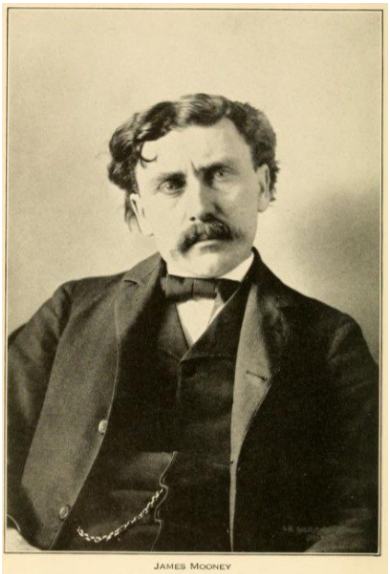

Fig. 3 – James Mooney (1861-1921). Bulletin of the Bureau of American Ethnology (1901), Bulletin 99, Plate 1, xvi.

forehead" (Mooney, 1902, p. 297). Thereafter described simply as a diamond (rather than *like* a diamond as per Mooney's initial statement), the stone was named Ulûňsû'tĭ, meaning "transparent". Directions were given as to the single weak spot in which the Uktena could be shot and killed, but the would-be hunter is deterred with the warning: "it is worth a man's life to attempt it, for whoever is seen by the Uktena is so dazed by the bright light that he runs toward the snake instead of trying to escape. Even to see the Uktena asleep is death, not to the hunter himself, but to *his family*." (Mooney, 1902, p. 298). However, notwithstanding the danger, a successful captor "may become the greatest wonder worker of the tribe" (Mooney, 1902, p. 297).

Ulûňsû'tĭ was reportedly captured only once, by a medicine-man named Ăgăn-uni'tsĭ, from the Shawano people who, according to Mooney, "are all magicians" (Mooney, 1902, p. 298). Ăgăn-uni'tsĭ bargained with his Cherokee captors, promising he would obtain for them the Ulûňsû'tĭ if they spared his life. Ăgăn-uni'tsĭ's attack upon the snake, directed against its single vulnerable spot, was successful. When Uktena was dead, Ăgăn-uni'tsĭ called the birds who ate the snake's body, and he was able to retrieve the Ulûňsû'tĭ from the skeleton (Mooney, 1902, pp. 299-300).

American ethnologist Daniel Brinton (1837-1899), paraphrased Timberlake's account of Uktena, and sought to interpret its symbolism. Drawing on the work of Dr F. L. W. Schwartz (dates unknown; 1860) Brinton argued that to the indigenous Americans, the serpent was symbolic of lighting, and that the jewelled stone on the forehead of a snake was a further expression thereof. Interestingly, Brinton suggested that a horn may be substituted for a forehead jewel – there are indeed some intriguing parallels in the folklore of horned snakes in other indigenous American traditions, such as the Creeks and the Hurons:

> Among the Hurons, in 1648, the Jesuits found a legend current that there existed somewhere a monster serpent called Onniont, who wore on his head a horn that pierced rocks, trees, hills, in short everything he encountered. Whoever could get a piece of this horn was a fortunate man, for it was a sovereign charm and bringer of good luck. The Hurons confessed that none of them had had the good hap to find the monster and break his horn, nor indeed had they any idea of his whereabouts; but their neighbors, the Algonkins, furnished them at times small fragments for a large consideration (Brinton, 1905, p. 136)[1]
>
> The charm which the Creeks presented their young men when they set out on the war path was… composed of the bones of the panther and the horn of the fabulous horned snake… the great snake dwelt in the waters; the old people went to the bring and sang the sacred songs. The monster rose to the surface… he showed his horns, and they cut one off… A fragment of these in the "war physic" protected from inimical arrows and gave success in conflict (Brinton, 1905, p. 138).

In each of these accounts, the monster serpent is described as having a horn instead of a forehead gem. Once obtained, the horn appears to serve a similar amuletic function to a forehead gem.

South Africa

Modern research conducted amongst the Khoekoen and descendants of the /Xam San of South Africa reveal a twentieth century expression of the serpentine forehead gem myth (Hoff, 1997, p. 24). The Great Water Snake is said to have a light on its forehead. Although initially described as a spot, star or mirror, Hoff's subjects thereafter refer to it as a stone (Hoff, 1997, p. 24). The snake is said to require the light of the stone to graze at night (Hoff, 1997, p. 24). Once captured, the stone is said to have various different uses: to bring the owner material prosperity; it is useful as medicine – although its particular medical function is unclear; when placed under the pillow at night it will grant the owner cleverness; and as part of a collection of magical objects it brings the owner good luck (Hoff, 1997, p. 24). J. Benoit (2025) has recently identified an earlier account of this stone from the same community, recorded by the 'hermit-naturalist' Alfred 'Gogga' Brown (1834-1920). Brown's collected account describes the stone as approximately the size of a garden pea or bean and again claims that the host requires it for light (Benoit, 2025). The account holds that the snake removes the stone when drinking, providing an opportunity for the hunter to steal it while the snake is distracted (Benoit, 2025). The stones were said to contain "great virtues" but the specifics of these were not given (Benoit, 2025).

Korea

Evidence from Korea is derived from *Corea: The Hermit Nation* (1882) by William Elliot Griffis (1843-1928). While Griffis did not himself visit Korea, through watching activity at the docks of Echizen, Japan, he became interested in the Korean envoys and embarked upon a plan to open the "sealed and mysterious" land of Korea in the same way as "Japan, once a hermit, had opened her doors and come out" (Griffis, 1882, pp. v-vi). Griffis collated information from an array of written and pictorial sources. His comments on the forehead gem are scant, but tantalising: he described a domestic guardian creature called the *epkuron-gi,* which took the form of a snake with two pairs of wings and forked tongue (Figure 4). When the *epkuron-gi* lived for a thousand years it developed a precious gem on its

[1] Interestingly, the original Jesuit account can be found translated in Thwaites, 1898, pp. 213-215, and does not indicate that the snake has a horn.



Fig. 4 – Sketch of a Korean battle flag captured by the Americans in 1871, depicting an *epkuron-gi*. From Griffis, 1882 – public domain.

forehead, called *ya-kang-chiu* - this name is also given to any glittering stone, especially the diamond (Griffis, 1882, p. 305). The description of the stone as 'glittering' suggests a jewel or precious stone. No function, amuletic or otherwise, of the *ya-kang-chiu* is given by Griffis, but the similarities with other legendary ophidian creatures make this a strong probability.

South America

An interesting outlier, in which the host is not a serpentine creature, is a tradition from South America - accounts hailing from Peru, Bolivia and Paraguay – regarding the Carbunco (also Carbunclo or Carbunculo). The earliest extant reference to this creature is by Martín del Barco Centenera (1535-c.1602), a Spanish cleric and author, in his poem *La Argentina* (1602). Centenera claims to have unsuccessfully hunted the creature while in Paraguay. He described it as small, swift and with a shining mirror on its forehead, "like a burning ember". When wounded, its mirror would cloud over. Possession of the extracted mirror was said to attract unspecified boons to the owner (Centenera, 1836, p. 31).[2] In Centenera's poem, Spanish conquistador and statesman Ruy Diaz de Melgarejo (1519-1602) was said to have once owned Carbunco's mirror (itself also called '*el carbunclo*', the carbuncle) but lost it in a canoeing accident. Centenera holds that Melgarjo considered that if he had not lost the stone, he would have served with King Philip III of Spain (1578-1621) (Centenera, 1836, p. 31). Thus, clearly considering the stone a lucky amulet, and its loss causing bad luck, in the form of lost opportunities, to Melagarjo.

Glossing the Spanish Golden Age texts, Ignacio Arellano (2014) summarised that the Carbunco was a nocturnal, quadrupedal, herbivorous animal with a bright stone on its forehead whose brilliance it can hide by drawing a flap of skin over it (Arellano, 2014, section 50). Doubts about whether the creature was, in fact, genuine were already being expressed as early as 1615-24; Pedro Díaz de Rivas (1587-1653) wrote:

> It is a common tradition that there is a certain animal that has a stone on its head so bright that it serves as a guide and light for travelers at night. This is believed to be common knowledge and is not supported by the testimony of a serious writer. (Arellano, 2014, section 5)

Centenera's description of the Carbunco's stone as like a burning coal, and the name of the host evoke Pliny's *carbunculus*, a precious gem, said to emit light or a glow. Pliny asserted that there were twelve varieties of *carbunculus*, some more strikingly brilliant than others; and one variety which was used for making mirrors (Plin. Nat. 37.32; Bostock & Riley, 1857, pp. 420-422) – a notable parallel with Centenera's description of Carbunco's forehead stone. A further parallel can be found between Centenara's Carbunco and Pliny's *draconitis* – a precious stone from the head of a dragon (Plin. Nat. 37.54). Carbunco's mirror was said to cloud over when the creature was wounded; if the dragon were overtly attacked, the *draconitis* would fail to coalesce into a gemstone "owing to the spite of the creature as it perceives that it is doomed", therefore the *draconitis* was to be obtained by beheading the creature when it was asleep (Plin. Nat. 37.57; Bostock & Riley, 1857, p. 447). A particularly vivid description of how this might be achieved featured in *The Life of Apollonius of Tyana* by Greek sophist Philostratus (c. 170-247 AD) (Philostr. VA 3.8), apparently independent of any direct influence by Pliny's *Historia Naturalis* (Pymm & Duffin, 2020, pp. 218-219).

Key features

Key features of these accounts include the description of the stone as a crest; the stone's brightness, the host's ability to veil and unveil the stone; and its ability to remove the stone at will. Where a creature is described as having either a 'jewelled crest' or a 'jewel upon its crest', no further details are generally given about the size, shape, orientation or other features of the crest. It is likely that the idea of a crest was rooted in the description of the basilisk, a type of snake, by Pliny: "The basilisk… is a native of the province of Cyrenaica, not more than 12 inches long, and adorned with a bright white marking on the head like a sort of diadem." (Plin. Nat. 8.36; Rackham, 1940, p. 57). The head marking evolved through derivative works into a jewelled crown or crest (see Krzyszczuk & Morta, 2023, pp. 298-300; Edwards, 2009, p. 101). It is tempting also to interpret Fanfan Brunie's description of the Dominican Bakwa 'crowing like a cock' as being reminiscent of the basilisk,

[2] "Pues para que el Carbunclo de algo preste. En vida el espejuelo sacan de este ." (Centenera, 1836, p. 31)

which would also emit such vocalisations. However, the gulf of time between the accounts is extensive and so a firm link cannot be drawn. From the thirteenth century, the mythological morphology of the basilisk evolved from a species of snake to a part-snake part-cockerel hybrid creature (Casagrande & Kleinhenz, 1985, p. 324).

The brightness of the forehead stone is particularly interesting; it is emphasised in the above accounts, in a way which suggests that the stone glows with its own radiance, rather than being a faceted jewel which reflects light. For example, it is often said to shine brilliantly in the darkness. Theories have been advanced that this brightness is the perceived 'glowing eyes' of nocturnal animals (Ball, 1938, p. 504; Tschudi, 1847, p. 459) – a result of the reflective layer, the *tapetum lucidum*, in their eyes which reflects light back through the retina, absent in humans. The reflected light is thus misattributed to a glowing stone on the head of a mysterious creature.

Conversely, a small number of minerals are indeed luminescent. Some diamonds, for example, can fluoresce after having been rubbed by a cloth. A smaller proportion still will exhibit sustained fluorescence after they have been removed from a light source. Chlorophane, a rare variety of fluorite, can luminesce after exposure to the sun, or other electromagnetic radiation. However, I agree with Ball that it is unlikely that the originators of the tales would have been acquainted with genuine luminous gems (Ball, 1938, p. 497).

The luminosity of the forehead stone is often connected with its removability. Accounts such as Brown's, regarding the South African snake, and Bouton's regarding the Dominican Bakwa, indicate that the monster-serpent removed its stone when it wished to drink. The practicality of achieving the removal is overlooked, as is the reasoning as to why it was necessary for the creature to do so. However, the putting aside of the gem while drinking provides a reason for the distraction of the snake, and thus an opportunity for the hunter to steal it.

In other accounts, the oversights of 'how' and 'why' the stone was separated from the host are circumvented where the creature, again usually ophidian, is described as habitually carrying the luminous stone in its mouth (Cooke, 1893, p. 17) or carrying it internally and vomiting it up (Jeffreys, 1942, p. 251). Howsoever effected, the disgorgement is convenient for the human observer, as it again provides an opportunity for the stone to be captured. This process is typified by an account by anthropologist M. D. W. Jeffreys (1890-1970) in Nigeria, recording a report from an indigenous hunter: "One night […] he saw a brilliant light in the forest and […] went towards it. […] a stone shining brilliantly lay on the ground. He realised that a python had vomited this stone to hunt its prey by the light. He […] scraping up a large lump of earth, covered the gleaming stone. He then rushed home to escape the rage of the python, which would now not be able to find its jewel. The next morning, early, the hunter returned and retrieved the shining gem…" (Jeffreys, 1942, p. 251). In most such accounts, the key to a successful capture is to hide the light of the gem so that the snake can no longer find it, and then to return at a later time and uncover it.

Concealed animal forehead stones

As in the accounts of Jeffreys and Cooke, above, the creatures in possession of luminous stones are not legendary but are 'common' serpents. A broad sweep of 'common' animals were believed to have a stone concealed inside their heads. The concealed forehead stones in common animals differ from the visible forehead stones on legendary animals in two significant ways. Firstly, the gem is not visible at any time: where some legendary creatures can conceal and unveil their stone at will, these stones are permanently concealed. Secondly, these stones are not luminous and they are frequently considered less aesthetically pleasing than gemstones, or their luminous counterparts (see, for example, Blaen, 2017).

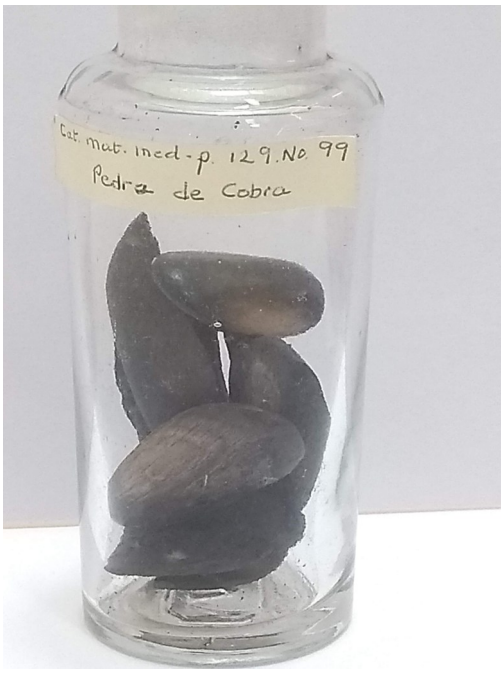

Figure 5. Piedra de cobra. Royal Pharmaceutical Society, London. Author's own photograph.

Snakes were often said to have such a stone in their heads (Figure 5). These substances, 'snakestones', and their particular amuletic functions are considered in chapter "Snakestone Amulets and Talismans" in this collection of articles. Toads were similarly said to have an 'ugly' stone inside their heads (Blaen, 2017, p. 264). Toadstone exemplars have been identified as fossilised teeth of the late Jurassic fish *Lepidotus maximus* (Duffin, 2010, p. 3). Otoliths taken from the inner ear of fish, were known as *Cinaedia* (Duffin, 2007). *Doriatides* was believed to form in the head of a cat; *vulturis* in the head of a vulture; *hyaenia* from the eye of a hyena; and *chelonites* from the eye of the turtle (Duffin, 2007, p. 78). Still more animals were said to produce endogenous stones from elsewhere in their bodies. Male chickens,

cocks, were believed to produce *alectorius*, a crystalline stone, about the size of a bean – where genuinely extracted, these were likely gastroliths (Carrasco & Duffin, 2017, esp. pp. 157-8). *Chelidonius* was similarly said to be found in the mouths of swallows. Bezoars, masses forming in the gastrointestinal system of various animals, were also prized as amulets (Duffin, 2013).

Amuletic utility

It is here that we should turn to utility. The luminous animal stones appear to have had very little practical purpose for their hosts. The folklore is often silent on this point or, alternatively, holds that the luminous stones aided the host creature in hunting. This is an erroneous human invention, as snakes and foxes – and presumably, by extension, their monstrous cousins – are well adapted for hunting at night and do not require an additional light source to detect prey. Thus, even if possession of a luminous stone were possible, these creatures would have no need for one.

When captured, these stones were thought to attract good fortune or accrue various powers to the new owner. For example, possession of Carbunco's stone would attract good fortune or opportunities; possession of the Great Water Snake's stone would bring luck and cleverness. According to Timberlake, obtaining the Ulûňsû'tĭ would enable the owner to work wonders. Mooney expanded on this, explaining "whoever owns the Ulunsu'ti is sure of success in hunting, love, rain-making and every other business, but its great use is in life prophecy". However, Mooney also detailed the demanding nature of the stone, and the propitiation it required in order to grant its boons, under pain of terrible consequences should the owner fail to do so:

> The owner keeps it wrapped in a whole deerskin, inside an earthen jar hidden away in a secret cave in the mountains. Every seven days he feeds it with the blood of small game, rubbing the blood all over the crystal as soon as the animal has been killed. Twice a year it must have the blood of a deer or some other large animal. Should he forget to feed it at the proper time it would come out from its cave at night in a shape of fire and fly through the air to slake its thirst with the lifeblood of the conjurer or some one of his people. He may save himself from this danger by telling it, when he puts it away, that he will not need it again for a long time. It will then go quietly to sleep and feel no hunger until it is again brought out to be consulted. Then it must be fed again with blood before it is used.
>
> No white man must ever see it and no person but the owner will venture near it for fear of sudden death. Even the conjurer who keeps it is afraid of it. and changes its hiding place every once in a while so that it can not learn the way out. When he dies it will be buried with him. Otherwise it will come out of its cave, like a blazing star, to search for his grave, night after night for seven years, when, if still not able to find him. it will go back to sleep forever where he has placed it. (Mooney, 1902, p. 298)

This is, however, something of an outlier, and in most instances the stones were thought to operate passively and continually, no matter the owner.

With respect to concealed internal stones, these were frequently held to operate through sympathetic medicine. Snakes and toads were perceived as venomous, thus the stone's purpose would be to protect the host against its own poison. Possession of the stone would transfer this protection to the new owner. A cock which was reputed not to drink water, was believed to sustain itself through a magic stone which quenches its thirst – amongst other uses, it was employed to both prevent and quench thirst (Carrasco & Duffin, 2017, p. 158). *Cinaedia*, taken from the heads of fish, had a variety of medical uses, including protective amulets for seafarers, and against urinary problems (Duffin, 2007, p. 81 and table 1) – thus drawing from the fish's association with water. Once extracted from its animal host, the stones were considered to retain their magical powers. Those powers could then be employed for the benefit of the human owner therapeutically, or as amulets. Each of the above listed stones – snake stones, toadstones, *cinaedia* and *alectorius* – had dual uses, as they were employed both therapeutically and as amulets.

Conclusion

The concept of a stone situated on the forehead has an ancient pedigree. In different times and geographies a forehead stone has had a diverse symbolism – the purposes of some uses are still obscure, such as the Phoenician face beads and the *lynchis* stone in the statue of Hera-Atargatis. The stories of animals with marvellous stones on or in their heads often had their roots in ancient sources, but stories proliferated in the fifteenth to eighteenth centuries. Across the world, many cultures have stories of mysterious legendary animals with luminous gemstones embedded in their foreheads. The shining stones evoke the rarity of the host and represent a unique treasure for the would-be captor. Their utility to the host is frequently unexplained or is couched in reasoning that is illogical from a modern perspective. In human terms, their value was as a legendary treasure or prize. Once captured they would operate as amulets – attracting prosperity, luck or opportunities to the new owner. Occasionally, as in Mooney's account of the Ulûňsû'tĭ, the stone required various rituals be performed before it could be coaxed into granting boons, but more commonly it was believed to possess an innate power that would accrue to the owner when used as an amulet or talisman. Stones reportedly hidden inside the craniums of host animals differed from their flashier counterparts in several key ways. Firstly, the hosts themselves were 'ordinary', non-legendary creatures; secondly, the stones were not usually

described as gemstones – they were not facetted or aesthetically pleasing; and lastly, they were purported to operate sympathetically, their therapeutic and amuletic power being connected to an aspect of the host creature. It would seem, therefore, that the folklore of internal forehead stones was more developed, and – importantly – these animal stones could potentially be harvested by the average person. They were versatile valuables – serving practically as a therapeutic and as a magical amulet for specific purposes. Conversely, the luminous stones of legendary creatures were rare prizes for exceptional heroic feats of derring-do, and the reward of an amulet which would ensure further success, positivity and prosperity was a treasure that was beyond the reach of all but a tiny, legendary, few.

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Bibliography

Adams, N. (2015). Carbunculus ardens: the garnet on the Narses Cross in context. *Dumbarton Oaks Papers, 69*, 147-158.

Ancient Glass Blog of The Allaire Collection. (2015, May). Classical Carthaginian Head Pendant. https://ancientglass.wordpress.com/2015/05/06/carthaginian-head-pendant/

Arellano, I. (2014). Un pasaje oscuro de Góngora aclarado: el animal tenebroso de la Soledad primera (vv. 64-83). *Criticón 120-121,* 201-233. https://journals.openedition.org/criticon/901.

Ball, S. H. (1938). Luminous Gems, Mythical and Real. *The Scientific Monthly, 47(6),* 496–505.

Benoit, J. (2025). The African dragon Stones: geomyths about snakes and the origin of diamonds in South Africa. *Geoheritage, 17:62.* https://doi.org/10.1007/s12371-025-01113-5

Blaen, T. (2017). 'Not used to be worn as a jewel: The wearing of precious stones in early modern England – ornaments or medicine. In C. J. Duffin, C. Gardner-Thorpe and R. T. J. Moody (Eds.), *Geology and Medicine: Historical Connections* (pp. 261-266). Geological Society, London, Special Publications, 452(1). https://doi.org/10.1144/SP452.10

Bostock, J. & Riley, H. T. (1857). *The Natural History of Pliny*. Volume VI. Henry G. Bohn.

Bouton, J. (1640). *Relation de l'establissement des François depuis l'an 1635 en l'isle de la Martinique , l'une des Antilles de l'Amérique, des moeurs des sauvages, de la situation et des autres singularitez de l'île*, par le P. Jacques Bouton. S. Cramoisy.

Brinton, D. G. (1905). *The Myths of the New World.* David McKay.

Carrasco, J. & Duffin, C. J. (2017). Alectorius: a parasypathomimetic stone? In C. J. Duffin, C. Gardner-Thorpe and R. T. J. Moody (Eds.), *Geology and Medicine: Historical Connections* (pp. 155-162). Geological Society, London, Special Publications, 452(1). https://doi.org/10.1144/SP452.15

Casagrande, G. & Kleinhenz, C. (1985). Literary and Philosophical Perspectives on the Wheel of the Five Senses in Longthorpe Tower. *Traditio, 41*, 311-327.

Centenera, M. d. B. (1836). *La Argentina, o la Conquista del Rio de la Plata: poemo histórico*. Imprenta del estado.

Cooke, M. (1893). *Our reptiles and batrachians*. W.H. Allen & Co. Limited.

Duffin, C. J. (2007). Fish otoliths and folklore: a survey. *Folklore, 118*, 78-90.

Duffin, C. J. (2010). The Toadstone – a rather unlikely jewel. *Jewellery History Today, 8*, 3-4.

Duffin, C. J. (2013). Bezoar stones and their mounts. *Jewellery History Today, 16*, 3-4.

Duffin, C. J. (2017). 'Fish', fossil and fake: medicinal unicorn horn. In C. J. Duffin, C. Gardner-Thorpe and R. T. J. Moody (Eds.), *Geology and Medicine: Historical Connections* (pp. 211-259). Geological Society, London, Special Publications, 452(1). https://doi.org/10.1144/SP452.16

Edwards, K. (2009). Milton's Reformed Animals: an Early Modern Bestiary: S. *Milton Quarterly, 43(2)*, 89-151.

Fincher, J. (2024). A New Translation of the Orphic Lithica with Notes. https://www.academia.edu/122292409/A_New_English_Translation_of_the_Orphic_Lithica_with_Notes.

Griffis, W. E. (1882). *Corea, the Hermit Nation: I. Ancient and Mediaeval History. II. Political and Social Corea. III. Modern and Recent History.* Charles Scribner's Sons.

Jeffreys, M. D. W. (1942). Snake Stones. *Journal of the Royal African Society, 42(165)*, 250-253.

Kayser, C. L. (Ed.) (1870). *Flavii Philostrati Opera, Vol. 1. Philostratus the Athenian*. B. G. Teubneri. http://data.perseus.org/texts/urn:cts:greekLit:tlg0638.tlg001

Krzyszczuk, L. & Morta, K. (2023). Basilisk – the history of the legend. *Alea, 25(1),* 277-306. https://doi.org/10.1590/1517-106X/202325116

López-Bertran, M. & Garcia-Ventura, A. (2016). The Use of Facial Characteristics as Engendering Strategies in Phoenician-Punic Studies. *Near Eastern Archaeology, 79(3)*, 206-213.

Lucian. (1925). *Works. with an English Translation by. A. M. Harmon*. Vol. 4. Harvard University Press.

http://www.perseus.tufts.edu/hopper/text?doc=urn:cts:greekLit:tlg0062.tlg041

Malaman, E. & Spagiari, F. (2022). I pendent in vetro antropomorfi e zoomorfi nella Sardegna feniciopunica. In: Filoni, L., Garatti, G., Giunto, A., Iadicicco, G., Ruberti, N. and Apagiarai, F. (Eds.). *Le lenti del passato, Atti del convegno della Scuola di Specializzazione in Beni Archeologici (Padova, 21-22 dicembre 2021)* (pp. 223-238). Edizioni Quasar di Severino Tognon srl.

Mooney, J. (1902). *Myths of the Cherokee*. Washington Government Printing Office.

Oldmixon, J. (1708). *The British empire in America, containing the history of the discovery, settlement, progress and present state of all the British colonies on the continent and islands of America. With curious maps done from the newest surveys* (Vol. 2). John Nicolson at the Kings Arms in Little Britain, Benjamin Tooke at the Middle-Temple-Gate, Fleet Street, and Richard Parker and Ralph Smith under the Piazza of the Royal Exchange.

Orsingher, A. (2014). Listen and protect: reconsidering the grinning masks after a recent find from Motya: *Vicino Oriente, 18*, 145-71. https://www.vicino-oriente-journal.it/index.php/vicinooriente/article/view/188

Orsingher, A. (2018). Ritualized faces: the masks of the Phoenicians. In Berlejung, A. & Filitz, J. E. (Eds.): *The Physicality of the Other: Masks from the Ancient Near East and the Eastern Mediterranean* (pp. 263-304). Mohr Siebeck.

Orsingher, A. (2022). Il volto sovrumano: le maschere fenicie e puniche tra demoni e antenati. In: Pereira Delgado, Á. & Díez Herrera, P. (Eds.): *Sacra artificilia: Liturgia y paraphernalia en las religions antiguas* (SPAL. Monografías XLII) (pp. 65-87). Editorial Universidad de Sevilla.

Pliny the Elder. (1906). *Naturalis Historia*. Mayhoff, K. F. T. (Ed.). Lipsiae. http://www.perseus.tufts.edu/hopper/text?doc=urn:cts:latinLit:phi0978.phi001

Pymm, R. J. & Duffin, C. J. (2020): Dragonstones: Myth, Magic, Medicine and Material Culture. In Sameiro do Barroso, M., Duffin, C. J. & de Sousa, G. (Eds.): *Medical Heritage of the National Palace of Mafra* (pp. 205-256). Cambridge Scholars.

Rackham, H. (1940). *Pliny, Natural History, III, Libri VIII-XI* (Vol. 3). Harvard University Press.

Rossi, F. D., Lukach, K. & Dobereiner (2020). The Diademed Body. In Carter, N., Houston, S. D. and Rossi, F. D. (Eds.) *The Adorned Body: Mapping Ancient Maya Dress* (pp. 69-87). University of Texas Press.

Schwartz, F. L. W. (1860). *Der Ursprung der Mythologie, dargelegt an Griechischer und Deutscher Sage*. Wilhelm Herz.

Seefried, M. (1979). Glass core pendants found in the Mediterranean area. *Journal of Glass Studies, 21*, 17-26.

Stern, E. (2001). The Phoenicians – major role players of the ancient Mediterranean world. *Old Testament Essays, 4(1)*, 102-118.

Strong, H. A. (trans.) (1913). *Lucian, De Dea Syria*. Garstang, J. (Ed.). Constable & Company Ltd.

Taylor, D. (1952). Tales and Legends of the Dominica Caribs. *The Journal of American Folklore*, *65(257)*, 267–279. JSTOR. https://doi.org/10.2307/537079

Thwaites, R. G. (ed.). (1898). *The Jesuit and Relations and Allied Documents: Travels and explorations of the Jesuit Missionaries in New France, 1610-1791. Vol. 33 – Lower Canada, Algonkins, Hurons, 1648-1649*. The Burrows Brothers Company, Publishers.

Timberlake, H. (1765). *The Memoirs of Lieut. Henry Timberlake, (Who accompanied the Three Cherokee Indians to England in the year 1762), Containing Whatever he observed remarkable, or worthy of public Notice, during his Travels to and from that Nation; wherein the Country, Government, Genius, and Customs of the Inhabitants, are authentically described. Also The Principal Occurrences during their Residence in London*. J. Ridley, in St James's Church Street; W. Nicoll, in St. Paul's Church-Yard; and C. Henderson, at the Royal-Exchange.

Tschudi, J. J. von (1847). *Travels in Peru, during the years 1838-1842*. Ross., T (Trans.). David Bogue.

THE PENTAGRAM AND ITS APOTROPAIC / PROTECTIVE ROLES FROM LATE PREHISTORY TO THE CONTEMPORARY PERIOD

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Summary
The pentagram, also known as the pentacle or five-pointed star, is a symbol used in many cultures, across time and place. Its earliest appearance known to date is in the IV millennium BC, "surviving" until the Contemporary Period, appearing on a large variety of archaeological and historical remains, such as prehistoric pottery, rock art, funerary tombstones, belt buckles, shields, rings, coins, manuscripts, medieval churches, coats of arms and XIXth century houses, among other examples of different chronologies.
Pythagoras and his followers called the pentagram **ύγείεια** (*hugieia*), which means "perfect health" (physical, mental and spiritual), as a mark of perfection. It was a symbol also used by early Christians, being present in funerary inscriptions in the Catacombs in Rome. In Christianity, it was used at least till the XVIIIth century on gold amulets for children, associated with five dots that symbolized the five wounds of Christ. Its association with warriors and warfare of different places and chronologies leads us to understand it as having a protective role in war. Furthermore, the pentagram appears also in contexts that can be considered of hieratic character, becoming therefore an apotropaic symbol, with examples from several countries.
When the pentagram is depicted in isolation, its meaning is not easy to understand, but its association with other figures or its presence in scenes of mythological character allows an easier approach to its symbolism.
Medieval superstition considered prehistoric rock art as the work of witches or of the devil, surviving examples of which include several rupestrian sites called "rock of the witches" or "rock of the devil". Interestingly, there are some cases of pentagrams carved during the Middle Ages near prehistoric engravings, being a symbol used both to avoid and exorcise evil. In the XIXth century, pentagrams were carved in cattle corrals in order to act as an amulet against the "evil-eye". That use of the pentagram as a good-luck charm was common in the European countryside, the figure being depicted near doors and windows in several villages. But it was also considered as an amulet in the intellectual field, ascribed as such in Goethe's "Faust" (1808).

Keywords: pentagram, symbolism, apotropaic role, protection.

Introduction

The pentagram, pentacle or five-pointed star, is a symbol used in many cultures, appearing in a large variety of archaeological and historical remains: prehistoric pottery, rock art (several periods), funerary tombstones (*idem*), belt buckles, shields, rings, coins, manuscripts, medieval churches, coats of arms, ethnographic artefacts and XIXth century houses, among other examples (Coimbra, 2008a). So far, the earliest examples of pentagrams can be seen on pottery from the end of the IV millennium BCE found at Jemdet Nasr, Iraq (Mallowan, 1965).
In sequent periods it can be seen in rock art, with many examples from Italy, France, Spain and Portugal, some dated to the Late Bronze age and others to the Iron Age (Coimbra, 2008b).
In classical Antiquity, Pythagoras and his followers called the pentagram **ύγείεια** (*hugieia*), which means "perfect health" (physical, mental and spiritual), as a mark of perfection (Coimbra, 2005). Interestingly, this symbol appears on a Greek coin of the IVth century BC found at *Pitane* and associated with Asclepius - the god of health (Vasconcelos, 1918). During the same period, the five-pointed star was the symbol of Jerusalem, occasionally appearing on amphorae associated with the inscription YRSLN, the form in which that city was mentioned in ancient Hebrew (Coimbra, 2005).
It was a symbol used also by early Christians, being present in funerary inscriptions in the Catacombs of Rome (Leclerq, 1924, p. 1939).
During medieval times, which were rather superstitious, some pentagrams were carved over engravings considered by popular mentality to be of evil character, having been made by witches or the devil. One interesting example is the pentagram carved over a XIVth century graffiti depicting a possible demon in Saint Mary's Church at Troston, Suffolk (Fig.1).
In Christianity, the symbol was used up to at least the XVIIIth century in gold amulets for children, associated with five dots that symbolized the five wounds of Christ (Vasconcelos, 1918).



Figure 1. Pentagram over the graffiti of a possible demon (After Champion, 2015)

In recent ethnography the pentagram was carved onto ox yokes from the northwest of the Iberian Peninsula, with the aim of preserving the cattle from the evil-eye and witchcraft (Lorenzo Fernandez, 1935), appearing also in several European countries of the XIXth century, near doors and windows to prevent the entrance of evil spirits (Vasconcelos, 1918).

In the present text, the author focuses exclusively on the archaeological, historical and ethnographic aspects of the pentagram, not considering its use by neopagan religions or esoteric beliefs.

Interpretive methodology

The interpretation of symbols which are present in archaeological remains is not an easy task and often has several associated difficulties. Indeed, in some cases, the signs were created several millennia ago, the initial meaning being subsequently lost or difficult to understand. However, as Hodder (1987) mentioned, it is possible to reach scientific conclusions concerning such symbolism if a strategy were applied. Therefore, in order to avoid subjectivity, it is crucial to establish a methodology with the aim of obtaining more objective results (Coimbra, 2011) that, at the same time, can go "beyond more general speculation" (Renfrew, 1994, p. 5). Indeed, the inaccuracy of studies about symbolism, as Mircea Eliade (1979) wrote, rests upon hasty generalization, which sometimes can be seen in some articles. On the other hand, several authors just avoid making any kind of interpretation when presenting symbol-containing archaeological objects.

In order to present an interpretation of the pentagram here, I propose to employ a methodology used before in the study of that symbol in examples of rock art (Coimbra, 2011), but now in a more developed form and applied to a different kind of archaeological remains. The method consisted of analysing iconographic databases where the pentagram appears and establishing clear contexts where it is used. This procedure allows a better understanding of this symbol.

So far, three contexts can be attributed to the iconography of the pentagram: 1 – The association with weapons or with warriors; 2 – The association with hieratic motifs.

A third context can also be observed regarding examples connected with popular beliefs and superstition since the Middle Ages.

Let us analyze, then, these contexts separately:

Pentagrams in the context of warfare

In a previous article (Coimbra, 2011) I elaborated a list of pentagrams associated with warriors depicted in examples of rock art from Spain, France and Italy. Therefore, I will only present here some of the most important examples. One of the oldest cases known so far is in the rock of *Peña Rayá de La Huetre* (Las Hurdes, Cáceres, Spain), where a five-pointed star is associated with an arrow head and halberds of the *Carrapatas* type (Sevillano, 1991), dated from Late Bronze Age (Fig. 2).



Figure 2. Pentagram associated with halberds (Photo: Carmen Sevillano).

More recent is the famous *Aristophonos* crater, dated from 650 BC (Bandinelli & Giuliano, 1974), where the representation of a battle between two ships can be seen; one of the ships has two pentagrams in front of it (Fig.3).



Figure 3. Detail of the *Aristophonos* crater, in Musei Capitolini, Rome (Photo: F. Coimbra)

The region of Valcamonica, in the Italian Alps, is probably the area with the largest concentration of pentagrams associated with representations of warriors in rock art. Some of the best examples appear on the *Roca dei Guerrieri* (Rock of the Warriors) at Piancogno, being the symbol made by filiform incision and associated with warriors produced by the same technique. One of the five-pointed stars is even represented on the shield of one of the warriors (Priuli, 1993). This symbol can be seen associated with swords, axes and spears at the rock art sites of *Luine* and *Dos di Custapeta* (Ventura, 1996). Two more interesting examples can be seen on Rock 64 of *Naquane* (Capodiponte), where a pentagram is associated with a duel between two warriors (Priuli, 1991) and on Rock 57 of *Campanine di Cimbergo,* where a pecked pentagram appears over the head of a big and muscled warrior, who holds a shield and a weapon interpreted as a cudgel (Rossi & Zanetta, 2009).

All these rock art examples are dated from the Iron Age, such as one case in the cave of *Églises Supérieures d'Ussat-les-Bains* (Ariège, France) where a filiform pentagram is attached to the foot of a warrior, who carries a shield in his right hand (Glory, 1947).

The pentagram is also represented on military equipment as, for example, on a barbarian belt buckle found at the Roman city of *Conimbriga* (Portugal), dated to the Vth / VIIth century AD (Alarcão, 1994) and on shields of Muslim warriors, depicted in the famous XIIth century Spanish manuscript known as *Cantigas de Santa Maria* (Mettman, 1981).

During the Middle Ages, this symbol continues to be used in rock art, as at the Rockshelter 7 of *Tiermes-Sotillo de Caracena* (Soria, Spain), where it appears associated with two horse-riders, one of them carrying a long spear (Gomez Barrera, 1992: 164). In the XIIth century, the five -pointed star is frequently used on funerary tombstones, as in several examples belonging to the Knights Templar, kept in the Convent of Christ (Tomar) in Portugal (Coimbra, 2016a: fig.3). In XIVth century English literature, the pentagram is considered to have been present on Sir Gawain's shield in the romance *Sir Gawain and the Green Knight,* where it is once more associated with warriors (knights).

Pentagrams in a hieratic context

There are several cases of pentagrams with different chronologies associated with hieratic motifs (Coimbra, 2011), only the most important of which, together some new examples are presented here.

One of the earliest cases is on the bottom of a ritual vessel discovered in the prehistoric settlement of *Cuccuru is Arrius* (Oristano, Sardinia).[1] The five-pointed star is represented surrounded by concentric circles, with rayed lines in the interior and associated with schematic human figures (Lilliu, 1999, p. 372).

Still in the Western Mediterranean, on the walls of a hypogeum known as *Coves de s'Encantamnt,* at Biniguarda Vell (Menorca, Spain), two carved pentagrams appear associated with a swastika (Mascaró Pasarius, 1953-54, fig. I), a symbol with strong religious symbolism appearing in several cultures. These engravings seem to date to the Late Bronze Age.

With a more recent chronology, the pentagram appears on a funerary stele from *Marano di Castenaso* (Bologna, Italy), attributed to the VIIth century BC, and also on an *askos* of the VIth century BC discovered at *Lavello* (Potenza, Reggio de Calabria), where the symbol is associated with a funerary procession (Bandinelli & Giuliano, 1974, fig. 263).

Again, the field of Iron Age rock art contributes several examples to the context analyzed here. For example, on Rock 1 of *Figueiredo* (Sertã, Portugal), two pentagrams are in close relation with four "Greek crosses" (Figure 4), almost in a kind of syntax (Coimbra, 2011).

According to Miranda Green (1991), during the European Iron Age, the "Greek cross" was sometimes used to represent the sun. Similarly, these two pentagrams may also have had an "astronomical", and, therefore, a hieratic character, since in Protohistory astronomy and religion were very close (Coimbra, 2016c).

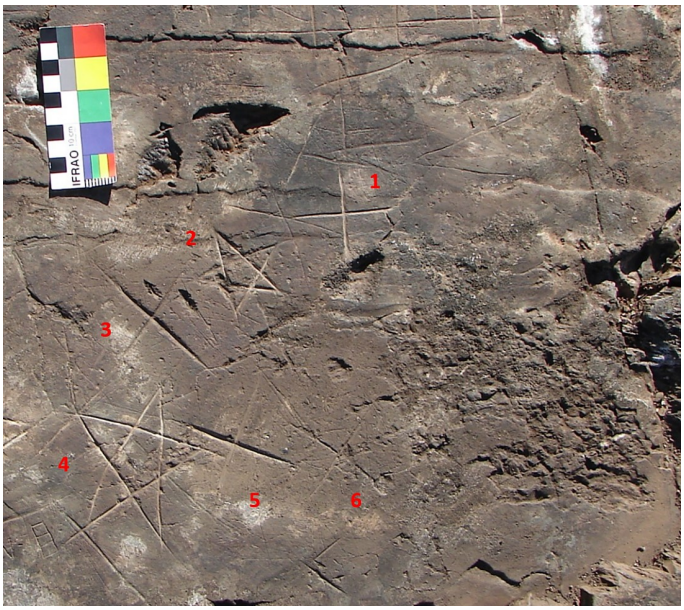

Figure 4. Pentagrams on Rock 1 of Figueiredo (2 and 4) associated with crosses (1, 3, 5 and 6)
Photo: F. Coimbra

In the open-air rock art of the French Eastern Pyrenees, there are some cases of the representation of possible deities, some of which are associated with pentagrams. For example, at *Peyra Escrita* (Formiguera), this symbol is associated with a mask (Fig.5) considered to be a depiction of a solar god, due to the characteristics of his eyes (Abélanet, 1990). This five-pointed star is also associated with two zigzags which, among some protohistoric cultures, are attributes of a thunder god. As

[1] This artefact, whose chronology is still uncertain, is part of a private collection (Lilliu, 1999)

a matter of fact, in Celtic mythology, the supreme god *Taranis* is the one who throws thunderbolts (Torres Martínez et al. 2011-2012), showing similarities with the Greek *Zeus Keraunios* and the *Roman Iovi Tonans*.

Near the same region, slightly more to the north, in the cave of *Sainte Eulalie* (Ariège), there is a depiction of a female figure with a diadem on her head, and who has been interpreted as a goddess (Glory, 1947, fig.3) and is associated with three five-pointed stars.

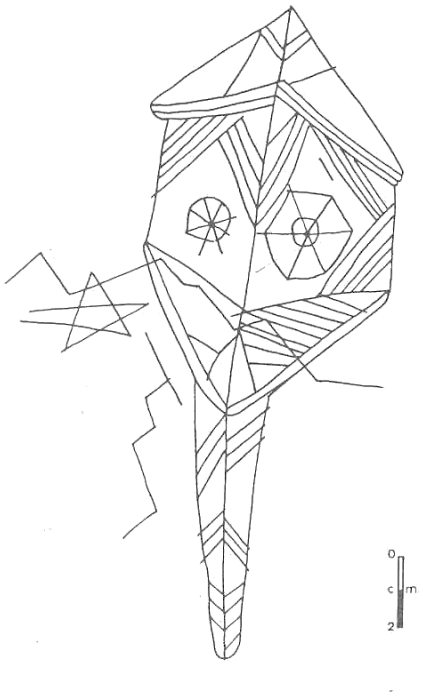

Figure 5. Mask with pentagram and zigzags of Peyra Escrita
After Abélanet, 1990

The association of the pentagram with possible astronomical representations in rock art must also be taken into consideration in the frame of the present context. For example, at *Coll de la Font Roja* (*Caixás*, East Pyrenees, France) there is a five-pointed star associated with a figure composed by ten rays with a central cup-mark and a kind of a tail that may represent a meteor or a comet (Abélanet, 1990; Coimbra, 2011, fig.6).

Despite not being very usual, there are unambiguous representations of cometary phenomena in rock art in different continents (Coimbra, 2010). These astronomical events were probably considered as manifestations of the gods, leaving a deep impression in the minds of the observers among non-literate cultures (Coimbra, 2012).

In Classical Antiquity, the pentagram is present on a Greek coin of *Pitane*, dated to the IVth century BC, associated with *Asclepius*, the god of health (Vasconcelos, 1918). In the Early Christian era, it can be seen on the funerary inscription of a little girl who died at the age of ten (Leclercq, 1939). From the same period there is an interesting tombstone with a bird that is biting grapes and three pentagrams on an ivy leaf (Fig.6), a pagan symbol of immortality. These two monuments were found in the Catacombs of Rome.

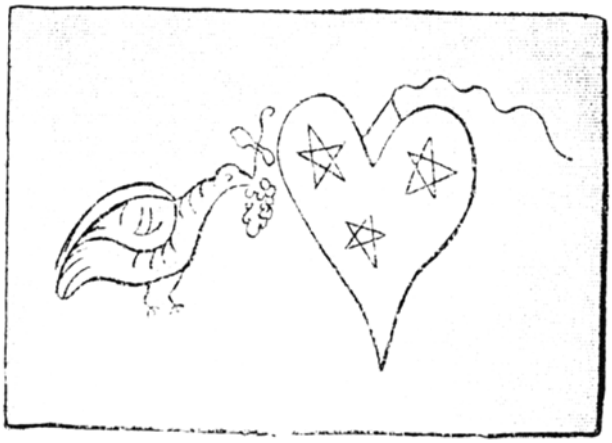

Figure 6. Christian funerary tombstone
(After Leclerq, 1924).

In the Middle Ages, the pentagram continued to be intensively used in a hieratic context. For example, it is represented in a XIIth century manuscript of the *Lorvão* monastery (Portugal), which contains a painting of a saint holding the Chi Rho and the Graal, in order to exorcise a demon which is keeping captive five souls; additional symbols such as two pentagrams and a swastika, probably there to reinforce the "exorcism", are also present (Coimbra, 2011).

The five-pointed star can also be seen on several medieval tombstones, some of them belonging to knights templar, in a large collection kept in the Convent of Christ, Tomar (Portugal). This symbol also appears on windows of several European medieval churches, such as *Santa Maria do Olival* (Tomar), where the main templar masters have their tombs. It appears associated with a Christian cross on a bronze bell of the Church of *Santa Cruz* (Coimbra, Portugal).

Popular beliefs and superstition

Ancient beliefs, at least since the end of the Classical World, seem to ascribe the pentagram with a function of personal protection. For example, this symbol appears on a ring of the VIth century BC, found at Galepsos (Greece), and now displayed in the Archaeological Museum of Kavala, in the same country. The tradition of rings with pentagrams continues during the Xth/XIth century in Croatia (VVAA, 1993) and in the XIVth /XVth century in Greece, during the Byzantine period, as can be seen in examples belonging to the Museum of Byzantine Civilization (Thessaloniki, Greece).

Ancient superstition in different countries consider some rock art examples as having been made by witches or by the devil,[2] as in several rock art sites known as "rock of the witches", "devil's footprint", "sorcerer's cave", and so on. For example, in the North of Portugal there is a carved rock known as *Rocha das Pegadinhas das Bruxas*

[2] This seems to be more evident in Latin countries.

(The Rock of the Witches' Footprints), near Guimarães, and another one called *Pegada do Diabo* (The Devil's footprint), in Mogadouro, Bragança (Coimbra, 2016b). In Andorra there is the famous *Roca de les Bruixes* (The Rock of the Witches) (Mas, 1977) and some engravings constituted by incised parallel lines are locally known as *Les Onglades del Diable* (The Devil's Nails Marks) (Canturri Montanya, 1976). In France, in the municipality of Angles-sur-l'Anglin, a rock shelter with Palaeolithic art is known as *Roc-aux-Sorciers* (The Rock of the Sorcerers) (Coimbra, 2016b). In Dolcedo (Imperia, Italy), a rock with a large cup-mark is known as *La Ginocchiata del Diavolo* (The Devil's Knee Mark), being associated with a legend where the devil was forced to kneel in front of saint Brigida leaving the mark of his knee on the rock (Prestipino, 2010).

Finally, until recently, the Saami people of northern Scandinavia[3] did not allow their children to get near sites with rock art, because they consider them as dangerous places. [4]

This association of rock art sites with evil characters meant that later carvings such as the pentagram or Christian crosses, might be added to the panels as an attempt to "exorcise" them. One interesting case is a large and deep pentagram carved on the rock art site of *Lamelas* (Vila Real, Portugal) (Fig.7), being much later than the prehistoric engravings on the same rock (Coimbra, 2005).

The same situation may apply to *Lage dos Cantinhos* (Vieira do Minho, Portugal), where two pentagrams, each inscribed in a circle, have been carved on an outcrop that has earlier engravings of geometric character (Fontes & Roriz, 2007). Figures of the same style were later used as silver amulets in that region

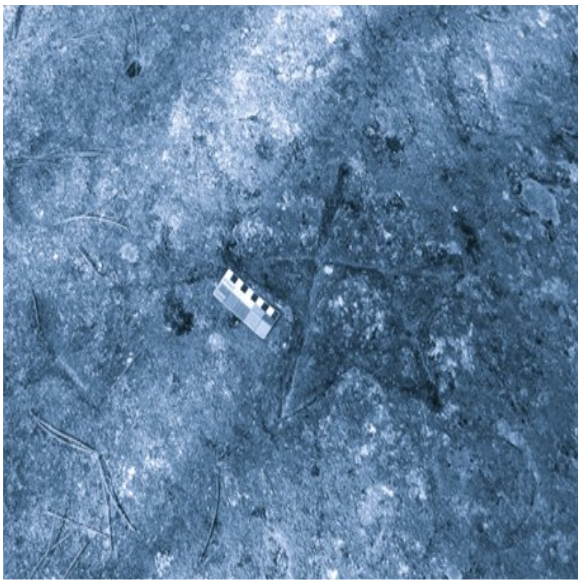

Figure 7. Pentagram of Lamelas, being visible earlier engravings such as a circle and cup-marks on the left part of the image.
Photo: F. Coimbra

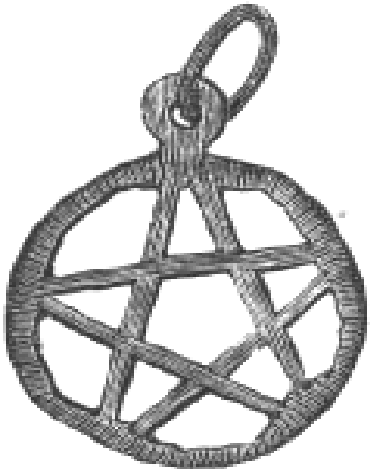

Figure 8. Silver amulet of the North of Portugal
(After Vasconcelos, 1900)

(Vasconcelos, 1900), dating to the XVIIIth or the XIXth century (Fig. 8).

In XVIIIth century German literature such as Goethe's *Faust*, the pentagram is considered to have the power to avoid evil. This virtue also applies to Portuguese good-luck charms of the same date for children and, during the following century, this symbol was depicted on houses in rural areas across almost the whole of Europe; owners used to carve it near doors or windows in order to avoid the "evil-eye" (Vasconcelos, 1918).

Also in the XIXth century, popular mentality believed that witches could be avoided if people drew a pentagram on the floor and then step on it (Vasconcelos, 1882).

The pentagram was also used to protect animals, appearing sometimes associated with a cross in cattle corrals of Portuguese rural areas, with examples that "survive" until the middle of the XXth century as, for example, in the village of *Casal da Quinta* (Milagres, Leiria), among other places (Fig.9).



Figure 9. Cattle corral with a carved pentagram and a painted cross (XXth century)
(Casal da Quinta, Milagres)
Photo: F. Coimbra

[3] Previously known as Lapland.
[4] Norwegian rock art researcher Elin Rose Myrvoll, pers. comm.

Discussion

According to Sevillano (1991), the pentagram associated with weapons on the rock *Peña Rayá de la Huetre* can be interpreted as a means of protection - as a charm against the evil spirits of war. It was noticed above that this symbol is represented on warrior's shields of different cultures and chronologies, such as in the rock art of Piancogno and on medieval iconography. The shield being a defensive weapon, it makes sense that a pentagram depicted on it would somehow reinforce its protective purpose. Other protective symbols like the swastika can often be seen on shields and weapons of different cultures. These examples also help to understand the "function" of the pentagram when this motif is represented on protective devices such as shields. At *Roca dei Guerrieri* (Piancogno), the pentagram appears associated only with warriors, a seemingly intentional correlation, having also, possibly, the aim of transmitting a message for future generations.

Interestingly, concerning the war scene depicted on the *Aristophonos* crater, the two pentagrams are certainly protecting the ship on the right of the image.

In conclusion, the pentagram's association with warriors and warfare of different places and chronologies allows us to understand it as having a protective role in war.

Regarding the hieratic context studied here, note that this symbol is represented together with religious motifs such as the swastika (at *Biniguarda Vell* and in the manuscript of *Lorvão*), and is also associated with images of deities (*Peyra Escrita*, Cave of *Sainte Eulalie,* coin from *Pitane*). Furthermore, it appears in depictions from funerary cults of different chronologies (stele of *Marano di Castenaso, askos* of *Lavello*, early Christian epitaphs, medieval tombstones (Fig.10) and churches.

The pentagram is also represented in scenes of astronomical character (*Coll de la Font Roja, Rock* 1 of *Figueiredo*), conveying a certain level of mythological thought.

The five-pointed star is also part of Christian iconography, appearing on funerary inscriptions of the catacombs in Rome.

All these examples, among others, suggest this motif is a sacred or a religious symbol, depending on the specific context.

The protective role of the pentagram observed in the context of warriors and warfare can also be seen regarding the cases of popular beliefs and superstition. For example, its association with the cross, as in the cases of Portuguese cattle corrals, may have been a way of reinforcing the protective power of this symbol.

Final notes

The pentagram is a symbol used since Late Prehistory up to the present day. This extraordinary "survival" provides an important clue with which to better understand its meaning(s). Indeed, the protective role of the five-pointed star can be traced back to the Late Bronze Age or the Iron Age, when it appears in the context of warriors and warfare; it continued to be present in the iconography of soldiers and knights from different cultures, until the Middle Ages and beyond.



Figure 10. Medieval funerary stella found at Ulme (Chamusca, Portugal) (Photo: F. Coimbra)

However, this persistence was only possible if the symbol had in its origins such a mystical value that it deeply penetrated the souls of the populations to whom it was presented as a visible sign of a dogma, or of a belief (Bertrand, 1897).

Furthermore, the association of this figure with deities, with sacred symbols and its presence in the funerary cult of different peoples, with different chronologies, seems to confirm the above arguments by Alexandre Bertrand. On the other hand, it is that high status that can explain the extraordinary survival of the five-pointed star until today.

In some places there is an ancient popular belief claiming that King Solomon used a ring with a pentagram, thereby attributing a specific importance to this symbol. As a matter of fact, in countries such as Portugal and France the five-pointed star is known as Solomon's seal,[5] which also explains the power it is ascribed in popular thinking. Furthermore, in Egypt, at the beginning of the XXth century, the pentagram was specified as *khâtam Salaïman* – Solomon's ring (Vasconcelos, 1918).

The history of Humankind has several examples of the survival of symbols, myths and rituals, many of which have been used from Prehistory to the present day. Psychoanalysts such as Carl Gustav Jung explain these survivals in terms of the idea of the collective unconsciousness, which is the area of the mind which retains and transmits the psychological heritage that is common to all Humankind. The pentagram is definitively among these cases.

[5] From the Latin – *Signum Salomonis* – that in popular Portuguese becomes *sino* (sign) *saimão* (of Solomon).

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References

Abélanet, J. (1990). Les roches gravées nord catalanes. *Terra Nostra, 5,* 101-209.

Alarcão, A. M. (1994). *Museu Monográfico de Conimbriga. Colecções.* Instituto Português de Museus.

Bandinelli, R. B.; Giuliano, A. (1974). *Los etruscos y la Italia anterior a Roma*. Ediciones Aguilar.

Bertrand, A. (1897). *La Religion des Gaulois.* Ernest Leroux.

Canturri Montanya, P. (1976). Els Gravats Rupestres Esquematics de les Valls d'Andorra. In, *Actas del Septimo Congresso Internacional de Estudios Pirenaicos, Tomo I* (pp. 81-87). Instituto de Estudios Pirenaicos/Consejo Superior de Investigaciones Científicas.

Champion, M. (2015). The Graffiti Inscriptions of St Mary's Church, Troston. *Proceedings of the Suffolk Institute of Archaeology, 43*, 235-258.

Coimbra, F. A. (2005). O pentagrama de Ribeira de Piscos (V.N. de Foz Côa) e seus paralelos no contexto da arte rupestre filoforme pós-paleolítica da Península Ibérica. *Côavisão*, *7*, 145-157.

Coimbra, F. A. (2008a). Portuguese rock art in a Protohistoric context. *ARKEOS, 24*, 111-130.

Coimbra, F. A. (2008b). The pentagram in rock art: some interpretive possibilities. In, Coimbra, F.A.; Dubal, L. (eds.), *Symbolism in Rock Art* (pp. 7-12). Archaeopress.

Coimbra, F. A. (2010). The sky on the rocks: cometary images in rock art. *Fumdhamentos IX*, 635-646.

Coimbra, F. A. (2011). The symbolism of the pentagram in west European rock art: a semiotic approach. In, Proceedings of the XXIV Valcamonica Symposium (pp. 122-129). Centro Camuno di Studi Preistorici.

Coimbra, F. A. (2012). Rock art and the memory of unusual astronomical events. *ARKEOS, 32*, 103-112.

Coimbra, F.A. (2016a). Symbols for protection in war among European societies (1000 BC – 1000 AD). In, Coimbra, F.A; Delfino, D. (eds). *The emergence of warrior societies and its economic, social and environmental consequences* (pp. 15-26). Archaeopress.

Coimbra, F.A. (2016b). Early sights about rock art: written documents, drawings, legends and superstition. *Arnava V. 1,* 193-212.

Coimbra, F. A. (2016c). Arte Rupestre e pensamento religioso na Pré-História. *Anuario Brigantino, 39,* 27-44.

Eliade, M. (1979). *Imagens e símbolos*. Arcádia.

Fontes, L.; Roriz, A. (2007). *Património Arqueológico e Arquitectónico de Vieira do Minho*. Município de Vieira do Minho.

Glory, A. (1947). Les gravures rupestres schématiques de l'Ariège. *Gallia, V,* 1-45.

Gomez Barrera, J. A. (1992). *Grabados rupestres postpaleolíticos del Alto Duero.* Museo Numantino/Caja Salamanca y Soria.

Green, M. (1991). *The Sun-Gods of Ancient Europe*. B. T. Batsford, L.td.

Hodder, I. (1987). La Arqueologia en la Era Post-Moderna. *Trabajos de PreHistoria, 44,* 11-26.

Leclerq, H. (1924). Astres. In, Cabrol, F.; Leclerq, H. (eds.), *Dictionnaire d'Archéologie Chrétienne et de Liturgie, vol. I* (pp. 3005-3007). Librairie Letouzy et Ané.

Leclerq, H. (1939). Pentagramme. In, Cabrol, F.; Leclerq, H. (eds.), *Dictionnaire d'Archéologie Chrétienne et de Liturgie, XIV* (pp. 258-259). Librairie Letouzy et Ané.

Lilliu, G. (1999). *Arte e religione della Sardegna prenuragica*. Carlo Delfino Editore.

Lorenzo Fernandez, J. (1935). A arte popular nos xugos da Galiza. *Trabalhos de Antropologia e Etnologia*, 221-222.

Mallowan, M. E. L. (1965). *Mesopotâmia e Irão*. Ed. Verbo.

Mas, D. (1977). El Roc de les Bruixes. Noves aportacions als gravats rupestres andorrans. *Quaderns d'Estudis Andorrans, 2,* 5-31.

Mascaró Pasarius, J. (1953-54). Las cuevas prehistóricas y los grabados rupestres de Menorca. *Ampurias XV -XVI,* 345-349.

Mettmann, W. (1981). *Afonso X, o Sábio. Cantigas de Santa Maria*. Edicións Xerais de Galicia.

Prestipino, C. (2010). Il segno sulla roccia dalla preistoria al medioevo (tracce materiali e leggende). In, Proceedings of the Congress "Le pietre raccontano" (pp. 18-38). Associazione Culturale Quiliano/ Società Savonese di Storia Patria.

Priuli, A. (1991). Stelliformi. In, *La cultura figurativa preistorica e di tradizione in Italia* (pp. 182-187). Edizione Giotto.

Priuli, A. (1993). *I Graffiti Rupestri di Piancogno. Le incisioni di età celtica e romana in Vallecamonica*. Società Editrice Vallecamonica.

Renfrew, C. (1994). Towards a cognitive archaeology. In, Renfrew, C.; Zubrow, E. B. W. (eds), *The ancient mind. Elements of Cognitive Archaeology* (pp. 3-12). Cambridge University Press.

Rossi, G.; Zanetta, M. (2009). Le rocce istoriate: corpus e schede. In, Sansoni, U; Gavaldo, S. (eds.), *Lucus rupestris. Sei millenni d'arte rupestre a Campanine di Cimbergo* (pp. 217-222). Centro Camuno di Studi Preistorici.

Sevillano San José, M. C. (1991). *Grabados rupestres en la comarca de Las Hurdes (Cáceres)*. Universidad de Salamanca.

Torres Martínez, J.; Martínez Velasco, A.; Luis Mariño, S. (2011-2012). Una "piedra del rayo" recuperada en el "oppidum" de Monte Bernorio (Villarén, Palencia). *Boletín del Seminario de Estudios de Arte y Arqueologia, LXXVII-LXXXVIII*, pp. 219-243.

Vasconcelos, J. L. de (1882). *Tradicoes populares de Portugal*. Livraria Portuense de Clavel & Cia.

Vasconcelos, J. L. de (1900). Amuletos. *O Archeólogo Português*, V, 287-289.

Vasconcelos, J. L. de (1918). Signum Salomonis. *O Archeólogo Português, XXIII*. 203-316; 382-384.

Ventura, S. (1996). Datazione delle figure a "stella" nell' arte rupestre camuna. *B. C. NOTIZIE. Notiziario del Centro Camuno di Studi Preistorici*, 9-11.

V.V.A.A. (1993). Anello in Bronzo. In, *Arte e Cultura in Croazia. Dalle Collezioni del Museo Archeologico di Zagrabia* (pp. 194). Centro Affari e Promozioni di Arezzo.

AMULETS IN CONTEMPORARY PORTUGUESE CULTURE: AN ANTHROPOLOGICAL EXPLORATION OF SYMBOLISM AND SIGNIFICANCE

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Summary
This research aims to analyse amulets from a symbolic and anthropological point of view. In addition, we would like to determine, if possible, whether amulets are still significant to Portuguese people.
A group of 53 families (113 people), from various parts of continental Portugal were observed for six years with relation to their customs surrounding the wearing of amulets and carrying out routine household rituals.
The study employed a qualitative methodology, utilizing exploratory interviews and direct observation as primary data collection techniques. Additional methodologies, including life narrative gathering, documental analysis, bibliographical research, and participatory observation were also included. Life stories, diaries, and letters were all subjected to the content analysis procedure, which made it possible for analysis aspects to emerge.
Regarding amulets, there is a substantial corpus of scientific anthropological literature. These symbolic artifacts have been investigated by anthropologists as part of larger investigations into material culture, religious doctrines, and symbolic systems. Depending on the theoretical approach, these are some important points of view from anthropological research on amulets: functionalism, symbolism, cross-cultural approach, structuralism, and cognitivism, among others. Additionally, studies on historical and economic anthropology provide an intriguing viewpoint on amulets.
We thought it necessary to examine several anthropological viewpoints on the subject. To achieve that, we investigate the following methods: historical approaches, which trace the development of talisman use over time within specific societies or regions; functionalist approaches, which provide an idea regarding the functions of talismans within societies, often focusing on their role in providing psychological comfort and social cohesion; symbolic analysis, which examines the symbolic meanings of talismans within specific cultural contexts; and a medical anthropology approach, which examines the use of talismans in healing practices and their role in traditional medicine systems. Finally, a cognitive anthropology approach was taken, investigating the connections between talisman beliefs and larger cognitive patterns and cultural frameworks. Anthropologists from the past and present, both Portuguese and international, are cited to convey these viewpoints from various locations and eras.
A comprehension of the complex human cultural fabric requires a grasp of the relationship between amulets and the anthropology of the symbolic. Amulets are more than just ordinary things: they are symbols with a multitude of deeper meanings and purposes that are found in almost every society. Based on the four primary functions that emerged from the 53 families' life stories, letters, diaries, exploratory interviews, and observation of their daily practices, we share how the informants' standing relates to amulets and the significance they assume in their daily lives. Therefore, their protective roles (which includes warding off evil and guarding against illnesses and dangers), identity (which they mark as belonging to a social, religious, or family group), power (which they associate with supernatural powers or authority figures) and, last but not least, memory (which they can serve as family heirlooms or mementos of significant occasions carrying memories and affections) are all examined.

Keywords: Amulets, protection, identity, power, memory.

Introduction

This research investigates the contemporary role and significance of amulets in Portuguese society through an integrated symbolic and anthropological lens. Drawing from a diverse range of qualitative materials—including life stories, letters, diaries, interviews, and daily observations with 113 individuals from multiple families—the project identifies and analyses the principal functions of amulets as they are woven into daily life and cultural practice. A multidisciplinary framework guides this study: the historical approach traces the evolution and transformation of talismanic traditions across societies and time periods, revealing the persistence or adaptation of certain customs; the functionalist perspective examines the psychological reassurance and social cohesion that amulets afford, particularly in times of uncertainty; symbolic analysis uncovers the rich cultural meanings attributed to these objects, positioning them as potent symbols within specific Portuguese contexts; the medical anthropological lens explores their role in healing and traditional medicine, underscoring their perceived efficacy in health and well-being; and the

cognitive anthropology approach investigates how beliefs about amulets correspond to broader mental frameworks and cultural cognition. By uniting these analytical perspectives and grounding them in detailed demographic information—spanning ages, genders, educational backgrounds, and professional fields—the study provides a nuanced, comprehensive portrait of why amulets remain relevant and meaningful in contemporary Portuguese life.

The informers: a brief characterization

The group of informants was observed for six years with regard to their customs surrounding the wearing of amulets and the performance of routine household rituals. The data was collected through fieldwork monitoring these families since 2019. They mainly live in the districts of Beja and Setúbal, but also in Lisbon, Coimbra, Faro, Castelo Branco, Porto and Bragança. Most of the informants (24) came from families in the Beja district, followed by those in the Setúbal (6), Coimbra (6), Faro (4), Lisbon (4), Castelo Branco (3), Porto (3) and Bragança (3) districts.

In terms of composition and geographical distribution, there are 27 nuclear families, two extended families, 13 blended families, three single-parent families and 11 single -person households. The total number of adults analysed is 113, while the number of children is only 19. Regarding the academic qualifications of the informants, the majority of adults are in higher education or hold a bachelor's, master's or doctoral degree. Of the 113 adults, 93 are practising or non-practising Catholics (82.3%), while the remaining 20 are made up of five agnostics, three atheists and two who did not answer.

Portuguese ethnographers and fieldwork: Talismans, amulets and mascots

These perspectives from different times and places will be presented through the work of Portuguese and international anthropologists, both past and present. Several Portuguese ethnographers documented magical practices intended to ward off illness and other evils, particularly those working between the XIXth and mid-XXth centuries. This research will focus mainly on authors from this period whose fieldwork took place in the regions under study. Only the most relevant authors will be emphasised. [1]

A substantial body of anthropological literature examines amulets within the context of material culture, religious beliefs and symbolic systems. Key perspectives include functionalism, symbolism, cross-cultural analysis, structuralism and cognitivism. Historical and economic anthropology also offer valuable insights into how amulets function within broader social, cultural and economic contexts.

Pires de Lima in his fieldwork in the municipality of Famalicão (Porto), says that "whoever brings a little bag around their neck, five little keys from the tabernacle, a sanguine and a crucifix, will never get sick again" (Pires de Lima, 1930, p.1). He also refers to the use of an ara stone, a black hen or a horseshoe outside the house, as well as leeks carried around the neck or in the pocket. Estanco Louro's excerpt from 'O Livro de Alportel' reveals the wealth and diversity of amulets traditionally used in São Brás de Alportel (Faro), reflecting protection practices and popular beliefs deeply rooted in the local culture (Prista, 1997). Among the objects considered amulets by the people of Alportel are the horseshoe behind the door, medals of saints, crosses, horns and even a pot of urine placed on cabbages, all seen as ways to ward off bad luck and bad influences (Louro, 1929). The author highlights that the most intriguing amulets are those crafted to protect against witches and sorcerers. He states that the most effective type is a sachet worn around the neck containing an image of Christ or a saint combined with berries or leaves gathered in mysterious circumstances. Occasionally, animal or mineral elements are added, but crucially, the sachet must be blessed by a witch; without this blessing, it is considered powerless. Furthermore, the sachet loses its efficacy if the wearer attempts to inspect its contents. Louro (1929) points out that these amulets are a significant source of income for witches, particularly those with strong reputations, due to the high demand for them among believers in witchcraft. His description not only reveals the protective function of these amulets, but also the syncretism between religious and magical elements and the vital role of secrecy and ritual in their perceived power. In Alportel, this tradition forms part of a wider Portuguese practice involving the use of objects such as horseshoes, figurines, ´figas´[2] (figs), scapulars and Turkish eyes to ward off evil, attract luck and provide protection.

Vasconcellos (1925; 1929) distinguishes between amulets, which offer protection against evil, and mascots,

[1] Leite de Vasconcellos, Thomé Pires, Rocha Peixoto, Teófilo Braga, Adolfo Coelho, Augusto and Fernando Pires de Lima, Pimentel, Cardoso Marta and A. Pinto, Mendonça Dias, Goltz de Carvalho and Estanco Louro. However, many other authors before them (although not ethnographers or ethnologists) have worked on these issues. We cannot, therefore, forget the contributions of Manuel de Azevedo (XVIIIth Century) and Cardoso (XIVth Century).

[2] The word 'figa' has different meanings and connotations in Portuguese and English contexts, depending on whether it is derived from Portuguese or Italian roots. Its usage reflects the deep cultural and semantic differences between the two languages. In Portuguese, figa primarily refers to an amulet shaped like a closed fist with the thumb between the index and middle fingers. This traditional symbol, known as the 'fig hand', is believed to protect against the evil eye and bad luck. The phrase 'fazer figas' literally means 'to make figas' — crossing one's fingers or holding a fist charm — and is used idiomatically to mean 'to hope for good luck' or 'to ward off misfortune'.

The gesture and charm have ancient Mediterranean origins, tracing back to pre-Christian fertility and apotropaic symbols. In English-language anthropological or cultural texts discussing Portuguese tradition, figa is usually translated as 'good-luck charm', 'amulet', or 'fist charm'.

In Italian (and in English texts borrowing from Italian), the word figa carries a completely different and vulgar meaning (due to these sexual and informal connotations, English writers often mark the term in italics or quotation marks when referring to this Italian word).

In this text, the word refers to the Portuguese context and should therefore be understood as a symbol, gesture or protective word.

also known as *porte-bonheur*, which attract good fortune. Amulets may be either pagan or religious in nature, and are employed to guard against supernatural threats, diseases, accidents and disasters. He also distinguishes amulets from talismans, stating that amulets ward off evil while talismans attract luck and prosperity. Some objects, such as the pentagram, have dual purposes: attracting good fortune when upright and evil when inverted. The effectiveness of amulets often depends on their shape or material; for example, the figa is considered to be particularly potent. This highlights their complex and multifaceted nature. The author refers to amulets "whose virtue depends on: their form, or their form and substance at the same time: figa, sino-saiman [pentagram], coins, half-moon, three-cornered nut, little horn" (Vasconcellos, 1929,p.234). He also refers to those "whose virtue depends only on their substance, … (jet, coral), metallic rings, horseshoes, mole hands, teeth, thunderstones, and others" (idem). In the same line, authors such as Vieira (2023), Phillips, (2002), Morris (1999). consider the power of a talisman is often believed to reside in its material, its shape, the symbols or inscriptions it bears, or the rituals performed in its creation.

Talismans: Amulets and mascots - the material and the immaterial

Anthropologists define talismans as objects believed to hold religious or magical powers, used to protect, heal, or occasionally harm those for whom they are intended. Ascribed with supernatural efficacy, talismans are thought to influence fortune, health, or safety. While often portable and carried, they can also be placed in homes, buildings, or worn as garments (Leoni, 2016; Vasconcellos, 1897). Although closely related to amulets, talismans have a distinct function.[3]

Talismans have been present in nearly every culture and historical era, ranging from ancient Sumerian and Etruscan carved stones to modern-day lucky charms and ritual objects (Bruce-Mitford,1997; Cirlot,1997; Cunningham, 1988). Belief in their effectiveness is almost universal, with talismans appearing spontaneously in various forms across societies worldwide, including as items of jewellery, inscribed stones, textiles, animal parts and written texts (Anderson, 2023). Junpitakchai (2023) claims that the power of an amulet is not inherent in its material, but rather culturally attributed through rituals, inscriptions, or associations with myths and deities. We view these perspectives as complementary. Vasconcellos (2020) defines amulets as objects worn around the neck, in a pocket, or kept at home to ward off evil. Sometimes it is just a clove of garlic or a simple stone, because the personal meaning matters most. He says that in modern Portuguese popular tradition, amulets continue to hold significant vitality ((1985] 2007). What was true almost a century ago remains true today, as far as we can tell.

From an anthropological perspective, talismans are not just examined as objects, but also as reflections of belief systems, social practices and cultural values. They shed light on how people perceive luck, danger, the supernatural and the boundaries between the material and spiritual realms (Paiva, 2000; 2002; Lopes,1944; Corral, 1997). The continued use and development of talismans in modern societies highlights their ongoing role in helping individuals to manage uncertainty and assert control over life's unpredictability. Amulets are far from being merely decorative; they are deeply woven into the symbolic systems that define cultures (Bastos,1985; Bastos & Levy, 1987; Anderson, 2023). Studying them provides valuable insight into the relationship between material culture, belief, and meaning-making in societies (Geertz, 2008; Giri, 2020; Morris, 1999; Junpitakchai, 2023). Amulets serve as tangible symbols that carry meanings extending far beyond their physical appearance. In many cultures, they are believed to possess inherent powers, offering protection, healing or attracting good fortune, making them significant on both a personal and a communal level (Thwaite, 2019; Carneiro & Lima,1932). From an anthropological perspective, amulets act as 'spiritual anchors', offering individuals reassurance against perceived threats or forces beyond human control (Junpitakchai, 2023). This role is universal, from ancient Egypt, where amulets such as the ankh, the Eye of Horus (also seen on Portuguese vessels) and the scarab beetle symbolised life and protection, to modern societies, where amulets remain popular for luck, protection and personal expression (Almeida *et al*, 2010; Delgado, 1985). "You might think it's rubbish, but every time I use this ring for exams or job interviews, everything goes well... the jobs I've lost and the exams I've failed, well, I hadn't put it on" (C.L., lawyer). And people can be ashamed of their behaviour and still not be able to resist wearing an amulet: "I thought I was superstitious, and I was ashamed, but now I don't care!" (C.L., lawyer).

The psychological role of amulets is significant. They help individuals to cope with fear, uncertainty and suffering by offering a sense of control over their fate (Bastos, 1985; Bastos & Levy, 1987; Almeida *et al*, 2010; Corral, 1997). This psychological comfort is reinforced by the collective belief systems and rituals surrounding the use of amulets within a culture. "Here, we all have eyes on our boats! It protects us, you don't see... and it goes back to our parents and grandparents and even earlier. I don't know, it seems that if we don't paint eyes on the boat, the sea will swallow us up!" (AMF, fisherman).

Symbolic anthropology, as expounded by thinkers such as Geertz (2008), emphasises that culture is a system of symbols through which people communicate, perpetuate and develop their knowledge and attitudes towards life

[3] While amulets are primarily protective—warding off evil or misfortune—talismans are thought to actively confer good fortune, power, or specific benefits upon the bearer. This distinction is not always rigid across cultures, and the terms are sometimes used interchangeably in popular discourse (Lima & Lima (1938); Bastos (1985) e Lea l(2000).

(Giri, 2020). Amulets are prime examples of such symbols; their meanings are generated and sustained within the 'webs of significance' created by societies (Giri, 2020). The meanings attached to amulets are both personal and collective and are deeply linked with *grupal* and collective memory (Halbwachs, 1990). For instance, an amulet may symbolise eternal life for its wearer, while also participating in a broader cultural narrative concerning cosmology, power and social status. “I wear this watch all the time but hidden. I'm terrified of being mugged (I don't even go to certain countries...). It's a very old pocket watch that has been passed down in the family from generation to generation, always to the eldest son or male child” (DSB, doctor). And the informer explains: “For us men in the family, it represents a link to our ancestors and a reminder of the time when the family, as well as being wealthy, had direct links to the Portuguese royal family and other European families”. (DSB, doctor)

The meaning of an amulet is closely linked to its archaeological and cultural context; the same symbol may have different meanings in different eras and among different social groups (Thwaite, 2019). The materials and forms used to create amulets, ranging from animal teeth and stones to inscribed metals and carved symbols, reflect the resources, technologies, and artistic traditions of their creators (Junpitakchai, 2023). Ultimately, it is belief that mediates their significance; an ordinary object becomes an amulet through symbolic association and ritual (Junpitakchai, 2023). For instance, Antónia, one informant, considered one of her dolls to be an amulet. “All bad news came to me when I had not the doll with me but everything was all right when that doll was with me”. She explained that her first doll, a gift from her husband, had been with her when she found out she was pregnant. However, when she found out that she had miscarried and would never be able to have children, the doll was at home while she was in hospital. Later, when her husband survived a car crash, the doll was by her side, but not during his final illness or at the time of his death. Now, she never leaves the doll, and many people in the care home know her as 'the lady with the doll'. Similarly, talismans may feature astrological symbols, religious verses or images of animals believed to possess special strengths. The process of making or consecrating a talisman is often as important as the object itself in imbuing it with power. “I pray every day and I always use this rosary that was blessed in the Sanctuary of Fatima (the person who gave it to me says it was blessed by the Holy Pope and I believe it) and I seem to feel more taken care of...” (MF, cook). Amulets also serve social functions. They can signal group identity, mark rites of passage, or reinforce social hierarchies:” “At the Pilgrimage in my hometown (Porto) I do use traditional ornaments. I wear crosses, crucifixes, reliquaries, all those symbols, as a tribute to my family” (CH, teacher). In modern contexts, amulets may act as fashion statements or tokens of personal spirituality, while still retaining echoes of their ancient protective and symbolic roles: “In fact, I take my own, those of my mum, my aunts and even those of my mother-in-law, who has only ever had boys and, apart from my husband, never married. But for me they represent the family and who we are, I'm not even much of a believer...” (CH, teacher).

The main roles of Amulets

Throughout history, objects and symbols have played important roles in human societies, serving purposes that extend far beyond their physical form. One of their primary functions has been to provide protection: people have long believed that amulets, charms or talismans can ward off evil, prevent illness and guard against danger. Such items are valued for their supposed ability to create a protective barrier and offer comfort in uncertain times. Such objects also act as strong markers of identity, signifying membership of a social, religious or family group. Wearing or possessing them demonstrates allegiance and heritage, fostering unity and reinforcing shared values (Anderson, 2023; Carneiro & Lima,1932).

In many cultures, these objects are closely associated with power, whether supernatural or linked to the authority of revered figures. Believed to bestow strength, luck or divine favour, they are often regarded as conduits for forces greater than oneself. Such items may be connected to legendary leaders, ancestors or spiritual entities, giving the wearer a sense of confidence and a connection to something larger and more powerful. One informer, BV, says: “I am the oldest boy of five boys, so this sword belongs to me. Unfortunately, I have no children, so, my nephew will keep it as a symbol of who we are” (BV, engineer). The sword, according to family legends, belonged to an ancestor who fought for Portuguese independence, back to 1640, and protected all the eldest sons who kept it and went to war. Additionally, these objects frequently serve as vessels of memory. Passed down as family heirlooms or kept as mementos of significant events, they embody the emotions, narratives, and histories of past generations. In this way, they become tangible links to the past, preserving cherished memories and enabling individuals to maintain a sense of continuity and heritage. In summary, these objects are far more than mere decorations: they offer protection, define identity, empower individuals, and preserve memories, thus playing a vital role in human life by weaving together safety, identity, strength, and memory. (Halbwachs,1990; Bastos & Levy, 1997; Leal, 2000).

To understand the complexity of human culture, it is essential to grasp the relationship between amulets and the anthropology of symbolism (Geertz, 2008). Amulets are not just ordinary items, but rather symbols with layered meanings and purposes that are present in nearly every society. In modern and contemporary Portugal, for

example, the strong influence of Catholicism coexists with a rich tradition of magical practices (Bastos,1985; Leal, 2000). Sorcerers and healers serve clients from all social groups, reflecting the intersection of religious devotion and magical practices. Informants' dialogues illustrate this multifaceted culture, showing the deep roots and ongoing significance of these practices (Paiva, 2000; 2002).

Despite being literate people with knowledge of science, some informants are often tempted to combine magical and symbolic practices with the biomedical model when they experience symptoms that popular beliefs consider to be supernatural. Consequently, curative practices are performed (such as removing the 'quebranto' or the sun, for example) and talismans are used (Bastos, 1985; Pires de Lima, 1930). Amulets can be classified as either pagan or religious, according to Vasconcellos (1929;2020) and are traditionally used as a safeguard against supernatural threats, diseases, accidents and disasters. Furthermore, Vasconcelos distinguishes between amulets and talismans: amulets are primarily used to ward off evil, whereas talismans are believed to bring luck and prosperity. Some objects, such as the pentagram, can serve dual purposes: attracting good fortune when oriented upwards and evil when pointed downwards. The effectiveness of amulets often depends on their shape or material (Vieira, 2023); for example, the figa is widely used for its reputed protective powers. Ultimately, a wide range of objects, symbols or materials can be used to invoke good or evil, which illustrates the complex and multifaceted nature of talismans and amulets in providing protection and attracting positivity (Bruce-Mitford,1997; Vieira, 2023).

Throughout history, amulets and charms have taken many forms, ranging from physical objects worn or carried for protection to intricate drawings or paintings imbued with symbolic meaning. Various cultures have also used protective gestures, such as the *mano cornuta* or *mano figa* hand signs, to ward off evil or attract good fortune. This demonstrates that protective magic does not always require a tangible artefact. Words, whether spoken as blessings or incantations or inscribed onto talismans (Bastos & Levy, 1987; Leoni, 2016; Almeida et. al., 2020; Anderson, 2023) also play a crucial role; a charm may begin as a song or phrase uttered over an object to activate its power. Even today, many people believe that the right words can transform ordinary items into potent sources of luck or defence. These diverse expressions, whether crafted, drawn, gestured or spoken, reflect a universal human desire to influence fate and safeguard well-being through the magical and the meaningful (Almeida et. al., 2020).

Symbolic objects such as horseshoes and crosses are considered potent amulets across cultures because their material form and cultural significance combine to imbue them with protective and beneficial powers. The group of informants in this study agree, often citing the horseshoe as an object of reverence. Its iron composition was believed to ward off evil spirits and witches because iron was thought to have mystical properties that repelled negative forces. The horseshoe's U-shape also resembles the crescent moon, a universal symbol of fertility, prosperity and growth, which further enhances its reputation as a bringer of good luck. In many cultures, horseshoes are placed above doorways to collect good fortune and prevent misfortune from entering the home. Similarly, crosses and other sacred symbols gain their potency from religious or spiritual associations. For instance, the Christian cross is not only a symbol of faith but is also believed to offer protection against evil and embody the triumph of good over harm. The power of these objects is reinforced through centuries of ritual use, folklore and shared belief, making them amulets that are recognised universally and transcend cultural boundaries (Delgado, 1985; Cunningham, 1988; Corral, 1997; Cirlot,1997; Leoni,2016; Leal, 2000).

The use of amulets by the group of informers

We observe that amulets are especially prevalent during critical life events, such as pregnancy and childbirth. During these times, both the mother and the newborn baby are considered particularly vulnerable to supernatural forces. Beyond these moments, students often carry talismans during exams to boost confidence and focus, while artists rely on them during performances to inspire creativity and ward off bad luck. Athletes also wear charms or amulets during competitions, hoping to enhance their performance and secure victory. Women often wear these objects as adornments, combining beauty with symbolic protection (Goff, 2004), whereas men tend to wear specific symbols such as crucifixes, horns or horseshoes, reflecting traditional beliefs about masculinity and protection (Gilmore,1991).

These talismans are often worn as bracelets adorned with various pendants, such as horns, horseshoes, the Saiman sign, clovers and keys. Special care is continuously taken to protect them. Sometimes, the pendants take the form of padlocks or hearts. The heart symbol stands out as a powerful emblem of love and connection, often representing affection from parents, grandparents, uncles or godparents. This rich variety of talismans illustrates how deeply embedded these objects are in cultural practices (Goff, 2004; Giri, 2020; Gilmore, 1991). They serve not only as protective charms, but also as meaningful tokens that connect individuals to their heritage, loved ones and hopes for a positive future.

This group of informants has a strong preference for certain amulets, which are widely used and have deep-rooted significance in Portuguese culture. Popular amulets include the Heart of Viana, crosses, horns and horseshoes, which are often incorporated into traditional gold jewellery worn by women as part of regional costumes or cherished as family heirlooms. These

objects are valued not only for their reputed ability to provide protection or bring good fortune, but also as expressions of cultural identity and continuity, which is particularly evident during festivals, religious ceremonies and rites of passage (Turner,1974; Geertz, 2008). The Hand of Fatima, commonly displayed on the exterior of homes, serves as both a protective emblem and a marker of tradition.

Amulets have long played a vital role in Portuguese culture, blending ancient pagan beliefs with Christian symbolism and local superstitions — a fact reflected in the informants' accounts. Across Portugal, particularly in rural areas, amulets are used for protection, fertility and happiness, and to ward off misfortune or the evil eye. Their forms and uses vary according to regional traditions and universal human concerns.

In central and southern Portugal, for example, eyes painted on the bows of boats and ships act as protective amulets, believed to shield vessels and their crews from harm at sea. The bow, considered the 'face' of the ship, is adorned with these eyes to ensure safe passage and ward off negative energies: a tradition that is particularly important to fishermen in Moita, Setúbal, and Figueira da Foz. Another notable amulet is the viper's head, which is associated with fertility. In places such as Barreiro, it is placed under a woman's mattress to aid conception and is often given as a gift by female relatives. This symbolises the transmission of protective power within families. An informer from Barreiro told us: “The viper's head was given to me by my husband's aunt, who is from the Gerêz area. As I couldn't get pregnant, she believed it would result in a quick and problem-free pregnancy. And didn't I get pregnant straight away?! I believe it!” (MS, hairdresser)

The 'figa' is a powerful gesture and amulet in the Portuguese tradition. Formed by closing the hand with the thumb between the index and middle fingers, it is believed to ward off the evil eye and prevent fascination. This gesture is often performed discreetly when giving gifts, particularly between lovers in Lisbon, to protect the gift from envy or loss (Vasconcellos, 2020). Depending on the context, the ‘figa’ can also symbolise contempt. It frees one from the evil eye or fascination that can be cast unintentionally, but it can also be cast out of envy. This belief persists.: “My daughter, when she sees a lady who is our neighbour and loves her very much, she gets headaches. Sick, sick... and my mother-in-law told her to keep her fingers crossed when she saw her. The girl never got ill again” (MFC, Pharmacist). The informant laughs and adds: “Now she always carries a ‘figa’, a horn and a cross next to her body, well hidden. I don't... I don't believe it, but... I should not say that… I´m a rational person!” (MFC, Pharmacist)

Moon shapes, which are often seen in earrings, and the Saiman sign are incorporated into jewellery and amulets for their magical and protective properties. The Saiman sign is believed to ward off the evil eye and attract abundance. It is also said to free one from illness and grief. People use it in threads and bracelets, but it is mainly found on everyday rural objects such as rattles, oxen yokes, furniture, and ceramic items: “At my grandparents' house, which was in Minho, the oxen were blessed and the yokes, the rocks, the chests, everything had the ... I think it's called a Saiman sign. They said it warded off evil and attracted abundance” (BH, veterinary surgeon). She continues the tradition: “My children, when they were little, always wore it on the string, hidden in their clothes!” (BH, veterinary surgeon).

The cross is one of the most prevalent amulets in Portugal, reflecting the country's strong Catholic heritage. It can be found in jewellery, on threads and bracelets, inside and outside homes, on cars and at crossroads or sites of fatal accidents. Serving not only as a religious symbol, but the cross is also considered a talisman against evil, a marker of community identity and a gesture of protection. Its presence in language and daily life, such as crossing one's legs or referring to the 'cross' in anatomy, illustrates its profound cultural significance. The cross is an example of an amulet that has a powerful effect through gestures performed by priests or believers. In fact, according to Vasconcellos ([1985] 2007), crosses appear everywhere in a Christian society like Portugal: in human anatomy, in the moral order (a cross means labour or torment) and in vocabulary: we call the ends of the cross 'arms' because of their resemblance to open arms.

The four-leaf clover is a versatile amulet, believed to ward off witches, summon good fortune, attract wealth, prevent sterility, and protect loved ones from illness or betrayal. It is also used to disrupt the affairs of enemies and expel evil spirits, making it a popular charm for general well-being: “Everyone knows that the four-leaf clover brings good luck and, above all, attracts money. I always carry a dry one in my wallet, or I wouldn't be an accountant!” (MM, accountant).

Horns, especially ram's horns, are considered highly effective amulets for luck and protection. Traditionally, they are kept indoors, facing the front door, but hidden from direct view—so that they are “not to be seen by all who enter, but to see all who enter.” Horns are also incorporated into jewellery and personal adornments: “I always remember there being a twisted ram's horn in my family's houses, hidden in such a way that anyone entering the house could not see it but be seen by the horn. It wards off envy”(CCN, teacher).The Hand of Fatima is used primarily to ward off the evil eye and protect against envy. It is commonly displayed on the outside of doors, serving as both a decorative element and a powerful protective symbol.

People use Padlock against the evil and it also refers to the closed vault (body) in relation to the possibility of entry of ‘encostos’ (spirits of the dead): “When I was a child, I suffered a lot from encumbrances and the evil eye, ‘quebranto’... I was always ill, and the doctors

couldn't explain what I had. Then two of my grandmother's friends and my grandmother took me to a very good medium who closed my safe (I had an open safe) with a key and a padlock (DCV, shopkeeper)."

The horseshoe is very popular and used on the outside door of houses (but on the inside of the door), to bring luck, and also to free from envy and the evil eye: "My godparents didn't have any children, but they had lots of nephews ... they weren't rich, but they had their things. I just wanted to keep the horseshoes and horns they had to attract luck and ward off envy. They believed in it a lot" (TC, nurse).

Amulets serve as identity markers, reflecting a person's belonging to a community, religion or family lineage. They are often passed down as heirlooms, carrying memories and stories from past generations. Thus, the amulet also becomes a repository of memory, evoking the people, moments and beliefs that have shaped the wearer's life.

The adoption of talismans from different cultural contexts is a common phenomenon resulting from intercultural contact, trade, or a fascination with the 'exotic'. This leads to magical symbols being circulated and reinvented within new traditions. However, this process can result in the desacralisation of the amulet, transforming it into a mere aesthetic accessory or commodity, stripped of its original meaning (Turner, 1974). The commercialisation of amulets is evident in contemporary markets, where many formerly sacred objects are mass-produced and sold as souvenirs, jewellery or fashion items, thereby losing their mystical significance and becoming mere consumer products (Long, 2001). Nevertheless, despite these transformations, the amulet remains a potent symbol of protection, identity and memory, continually adapting to cultural and social changes.

Some provisional resolutions and possible responses

The use of amulets in Portugal is a living tradition that is deeply rooted in the country's history and daily life. Whether painted on boats, hidden under mattresses, worn as jewellery or displayed in homes, these symbols continue to offer generations of Portuguese people comfort, protection and hope for happiness and abundance.

But do people still believe in talismans (amulets and mascots) in a technologically advanced society? Yes! Even in such a society, belief in talismans, amulets and mascots persists (sometimes openly and sometimes quietly) often wrapped in modern rationalisations. While people may claim not to believe in their mystical powers, phrases such as 'prevention is better than cure' and 'if it's not good, it's not bad either' reveal a subtle, pragmatic acceptance of these objects as harmless safeguards or sources of comfort. The appeal of talismans endures because they offer a tangible sense of reassurance; even sceptics admit that carrying a lucky charm or wearing a special pendant provides comfort, a psychological boost or simply a ritual that alleviates anxiety. In contemporary culture, these objects have been reimagined to fit modern lifestyles and are sometimes digital or integrated into fashion, yet their core symbolism remains unchanged. Ultimately, whether as a conscious belief or a quiet superstition, talismans continue to serve as anchors for hope, comfort and a little extra confidence in the unpredictable currents of modern life.

Amulets have long been an integral part of the human experience, playing a role in a wide variety of situations involving uncertainty or risk. In times of risk, such as during pregnancy or illness, people often turn to amulets for protection and hope, believing that these objects can ward off harm or promote healing. In times of transition, such as starting a new job or experiencing a significant change in status, amulets provide comfort and are believed to facilitate positive outcomes. In performance situations, such as assessments, sporting events or job interviews, individuals rely on lucky charms to boost their confidence and improve their chances of success. Even in everyday life, amulets are carried or worn as protection against negative influences or ill-intentioned individuals, or simply to attract good luck and positive energy. The enduring appeal of amulets across all these scenarios lies in their ability to offer comfort, reassurance and a sense of control in an unpredictable world.

Talismans are by no means the exclusive domain of older generations. People of all ages turn to these meaningful objects for comfort, luck or protection. Talismans can take many forms, whether chosen on one's own initiative or given by family and friends. They are not just traditional amulets or mascots but can also be everyday items that hold personal significance. For some, a simple ring, a thread or a keepsake from a loved one (whether living or deceased) can become a potent symbol of safety or good fortune. This personal connection transforms ordinary objects into unique talismans, demonstrating that the desire for reassurance and a sense of control is universal and adapts to the needs and beliefs of each individual, transcending age and tradition.

Talismans are not confined to rural areas; they are embraced by people in both rural and urban environments. While their use may be more openly acknowledged in rural areas, in cities talismans often appear as simple adornments or fashion accessories, blending seamlessly into the urban landscape. However, their underlying purpose remains the same: to offer their owners comfort, protection or luck. Among the 28 urban dwellers interviewed, only three claimed not to use talismans, highlighting just how widespread and quietly persistent this practice is, regardless of setting. This shows that talismans have an universal appeal, adapting to different lifestyles and cultural expressions.

The Portuguese commonly use talismans such as crosses and crucifixes, 'figas' (figs), hearts, clovers and horns,

which are often crafted from precious metals, stones or actual horn. These talismans are often worn as ornaments or placed inside homes, sometimes hidden and facing the entrance door. Boats, especially in the Setúbal, Porto and Coimbra districts, are adorned with distinctive painted eyes, serving as protective symbols. In certain rural and northern urban areas, viper's heads are favoured, while horseshoes are often found on doors or inside homes as a sign of good luck. The Hand of Fatima is also popular and is often displayed on doors or exteriors as a shield against negative influences. These objects reflect a rich tapestry of beliefs and customs that remain deeply embedded in Portuguese culture.

Understanding amulets through the lens of symbolic anthropology reveals their role as dynamic symbols at the intersection of material culture, belief and social practice. They are more than mere objects; they embody meaning, serve as vehicles for navigating uncertainty and mark identity and cultural continuity. To comprehend the complex fabric of human culture, it is important to recognise how amulets function as both mirrors and creators of the symbolic worlds that people inhabit (Junpitakchai, 2023; Giri, 2020; Thwaite, 2019).

References

Almeida, A.; Guimarães, A.; Magalhães, M.(coords.). (2010). Artes de cura e Espanta-males. Espólio de Medicina Popular recolhido por Michel Giacometti. Gradiva.

Anderson, B. (2023). The science of talismans today. History Compass, 21(3-4), e12761. https://doi.org/10.1111/hic3.12761

Bastos, C. (1985). Bruxas e bruxos no Nordeste Algarvio. Algumas representações da doença e da cura. Trabalhos de Antropologia e Etnologia, vol. 25 (2-4), p. 285-295, 1985.

Bastos, C.; Levy, T. (1987). Aspirinas, Palavras e Cruzes: práticas médicas vistas pela antropologia. Revista Crítica de Ciências Sociais, 23. Set. 1987

Bruce-Mitford, M. (1997). El Libro Ilustrado de Signos Y Simbolos. Editorial Diana.

Carneiro, A.; Lima, F. (1932). Medicina Popular Minhota. Separata da Revista Lusitana, Vol. XXIX. Porto: Imprensa Portuguesa, 1932, p. 13.

Cirlot, J. (1997).Diccionario de Símbolos. Ed. SIRUELA

Corral, A. (1997). Medicina Popular Tradicional. Religião, Superstições na cultura ribacudana. Vol I e II (1997). Ed. Da Câmara Municipal do Concelho de Figueira de Castelo Rodrigo.

Cunningham, S. (1988). Enciclopédia de Cristais, Pedras Preciosas e Metais. Alemdalenda.

Delgado, M. (1985). A etnografia e o folclore no Baixo Alentejo. Ed. da Assembleia Distrital de Beja.

Geertz, C. (2008). A interpretação das culturas. LTC - Livros Técnicos e Científicos Editora S.A.

Gilmore, D. (1991). Manhood in the Making. Cultural Concepts of Masculinity. Yale University Press.

Giri, A. (2020). Symbolic anthropology of Clifford Geertz and beyond. The Eastern Anthropologist 73: 1 (2020)

Goff, B. (2004). Four Representing Women: Ritual as a Cultural Resource. Arrow. https://doi.org/10.1525/california/9780520239982.003.0005

Halbwachs, M. (1990). A memória coletiva. Vértice.

Junpitakchai J. (2023). Substance of Amulets and Cultural Duty. PEOPLE: International Journal of Social Sciences, 9(3), 36-52.

Leal, J. (2000). Etnografias portuguesas (1870-1970): cultura popular e identidade nacional. Publicações Dom Quixote.

Leoni, F. (2016). Sacred Words, Sacred Power: Qur'anic and Pious Phrases as Sources of Healing and Protection. Oxford. p. 60. ISBN 9781910807095.

Lima, J.; Lima, F. (1938). Tradições populares de Entre-Douro-e-Minho. Companhia Ed. do Minho.

Long, C. (2001). Spiritual merchants: religion, magic, and commerce. University of Tennessee Press.

Lopes, C. (1944). A crendice na terapêutica popular. In F.C.P Lima. (Org.). Arquivo de Medicina Popular. Edição do Jornal do Médico.

Louro, E. (1929). O livro de Alportel. Monografia de uma freguesia rural – concelho. Livraria Sá da Costa.

Morris, D. (1999). Body Guards – Protective amulets and charms. Element Books Limited.

Paiva, J. (2002). Bruxaria e Superstição: Num País sem "Caça às Bruxas". Editorial Notícias.

Paiva, J. (2000). A magia e a bruxaria. In C. M. Azevedo. (Dir.). História Religiosa de Portugal. Círculo de Leitores. vol. II, pp. 369-375.

Phillips, L. (2002). Discover...Amulets and Charms. Pitt-Rivers Museum.

Pires de Lima, A. (1930). Etnografia e Folclore de Famalicão. Câmara Municipal de Famalicão.

Prista, P. (1997). O livro de Alportel e a etnografia em Estanco Louro. Etnográfica, Vol. I (2),1997, p. 259-270

Thwaite, A. (2019). A history of amulets in ten objects. Science Grroup Journal. Spring 2019. Article DOI: https://dx.doi.org/10.15180/191103

Turner, V. (1974). O Processo Ritual: Estrutura e Anti-Estrutura. Tradução de Nancy Campi de Castro. Editora Vozes.

Vasconcellos, J. (1925). A Figa. Estudo de Etnografia comparativa precedida de algumas palavras a respeito do "sobrenatural" na medicina popular portuguesa. Araújo & Sobrinho.

Vasconcellos, J. (1897). Religiões da Lusitânia: na parte que principalmente se refere a Portugal. Imprensa Nacional. Vol. I.

Vasconcellos, J. (1929). Amuletos de coral. In Boletim de Etnografia, Museu Etnológico Português, IV, Lisboa. pp. 50-53.

Vasconcellos, J. (1985] 2007) – Etnografia Portuguesa. Volume IX. Imprensa Nacional-Casa da Moeda.

Vasconcellos, J. (2020). Signum Salomonis - A Figa - A Barba em Portugal. Estudos de Etnografia Comparada. Etnográfica Press. DOI: 10.4000/books.etnograficapress.4380

Vieira, A. (2023). Amulets in Portugal — from objects to superstitions: the red coral. Trabalhos de Antropologia e Etnologia, 2023, volume 63. Pp.117-137