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Insularity in a Religious Context in the Sanctuaries of in Western Thrace

By Juliana Figueira da Hora & Claudio Walter Gomez Duarte

Abstract- The region of Thrace in the Aegean is an example of the dynamics of contact between Greeks and local populations. The region was chosen because of the need to understand the social, cultural, and religious dynamics in the hybrid sanctuaries sphere in the Northern Aegean through material culture. We will present preliminary reflections on the issue of insularity in cult contexts in the formation of a regional and/or local *koiné* in the Northern Aegean of the Archaic period, in the sphere of the Northern Aegean *peráiai*. The so-called "glocalism", immersed in contact networks, creates a bond of isolation and non-isolation between the islands and mainland. For this proposal, will be present specifically the sanctuaries of hybrid deities founded by Greek Thassos Island.

Keywords: thrace, northern aegean, insularity, globalization, female hybrid sanctuaries.

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Insularity in a Religious Context in the Sanctuaries of in Western Thrace

Entre o Local e o Regional no Egeu do Norte: A Insularidade em Contexto Religioso nos Santuários da *Peraia* de Tasos na Trácia Ocidental

Entre lo Local y lo Regional en el Norte: La Insularidad en un Contexto Religioso en los Santuarios de Peraia de Tasos en Tracia Occidental

Juliana Figueira da Hora ^α & Claudio Walter Gomez Duarte ^σ

Abstract- The region of Thrace in the Aegean is an example of the dynamics of contact between Greeks and local populations. The region was chosen because of the need to understand the social, cultural, and religious dynamics in the hybrid sanctuaries sphere in the Northern Aegean through material culture. We will present preliminary reflections on the issue of insularity in cult contexts in the formation of a regional and/or local *koiné* in the Northern Aegean of the Archaic period, in the sphere of the Northern Aegean *peraia*. The so-called "glocalism", immersed in contact networks, creates a bond of isolation and non-isolation between the islands and mainland. For this proposal, will be present specifically the sanctuaries of hybrid deities founded by Greek Thassos Island.

Keywords: *thrace, northern aegean, insularity, globalization, female hybrid sanctuaries.*

Résumé- A região da Trácia, no Egeu, é um exemplo da dinâmica de contato entre gregos e populações locais. A escolha da região devido à necessidade de compreender as dinâmicas sociais, culturais e religiosas na esfera dos santuários híbridos no Egeu do Norte por meio da cultura material. Apresentaremos reflexões preliminares sobre a questão da insularidade em contextos de culto na formação de uma *koiné* regional e/ou local no Egeu Setentrional do período Arcaico, mais precisamente na esfera das *peraia*¹ do Egeu Setentrional. O chamado "glocalismo", imerso em redes de contato, cria um vínculo de isolamento e não-isolamento entre as ilhas e continente. Apresentaremos especificamente os santuários de divindades híbridas fundados por gregos da Ilha de Tasos.

Palavras-chave: *trácia, norte do egeu, insularidade, globalização, santuários híbridos femininos.*

Résumé- La región de Tracia, en el Egeu, es un ejemplo de la dinámica de contacto entre los griegos y las poblaciones locales. La elección de la región está relacionada con la necesidad de comprender la dinámica social, cultural y religiosa en el ámbito de los santuarios híbridos en el norte del Egeu a través de la cultura material. Presentaremos reflexiones preliminares sobre la cuestión de la insularidad en contextos de culto en la formación de una *koiné* regional y/o

local en el norte del Egeu del período Arcaico, en el ámbito de las *peraia*² de la parte Norte del Egeu. El llamado "glocalismo", inmerso en redes de contactos, crea un vínculo de aislamiento y no aislamiento entre las islas y continente. Para este artículo, se presentarán específicamente los santuarios de deidades híbridas fundados por griegos de la isla de Tasos.

Palabras clave: *tracia, egeu septentrional, insularidad, globalización, santuarios híbridos femeninos.*

I. INTRODUCTION

This paper is a research proposal under development.³ In this sense, our main objective is to understand the dynamics of contact relations between Greeks and local populations in Archaic Thrace through the materiality excavated in certain poleis in the *peraia* region and through the existing documentation in the excavation reports (TIVERIOS, 2008, p. 74). In this sense, we pay attention to the local traces both in the structures of the sanctuaries there and in the artifacts from the excavations. We have tried to use a relational contextual methodology and the database as a tool to create regional comparative tables (HORA, 2018, p. 88-105). As specific objectives, we aim to understand the relationships between these poleis, both in terms of the context of networks in the Northern Aegean, and the local specificities present in sanctuaries of hybrid deities (Greek and Thracian), within the discussions of so-called localism and glocalism, to seek a direction of contextual view of the polis to understand the external and internal influences of cult habits. The applicability of local theories, in line with methodologies designed for archaeological contexts, is still in its infancy in archaeological studies in foreign universities, and in the case of Brazil, it is almost non-existent. In this way, this paper aims to bring originality in terms of theory applied

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¹ *Peraia* (ή *περαιά*) uma posse continental por um Estado insular. Ver: Liddell; Scott; Stuart-Jones, (1996). Para o plural *peraiai* (αί *περαιάι*) Ver: Welwei, (2006). De acordo com Constantakopoulou (2007) *peraiai*: partes do continente por um Estado insular.

² *Peraia* (ή *περαιά*) una posesión continental por un estado insular. Ver: Liddell; Scott; Stuart-Jones, (1996). Para el plural *peraiai* (αί *περαιάι*) Ver: Welwei, (2006). Según Constantakopoulou (2007) *peraiai*: partes del continente por un estado insular.

³ National Council for Scientific and Technological Development (CNPq), Productivity Researcher Level 2.



to a methodology that includes excavation reports in specific archaeological contexts in the Northern Aegean and seeks to understand the dynamics of relations at the local and regional levels in the Archaic period.

II. DISCUSSING IDENTITIES: INSULARITY, LOCALISM, AND GLOBALIZATION IN THE MEDITERRANEAN

Scholarship within Mediterranean Archaeology has explored local dynamics, aiming to comprehend how the incorporation of Greek elements unfolded across diverse Mediterranean locales, introducing a material culture that transcended mere imitation of Greek techniques, motifs, and aesthetics. The reception of these elements can be interpreted through the lens of network theory, a prominent discourse in understanding Hellenistic phenomena and the plurality of discourses, as well as within the framework of local contextual processes. In this regard, we posit that hyper-connectivity does not negate locality but rather complements it dialectically. These theories converge harmoniously, as argued by Vlassopoulos, as local approaches enable us to contemplate the transformations wrought by connectivity (VLASSOPOULOS, p. 2013).

The utilization of network concepts, according to I. Malkin, provides insight into the intricate web of interconnections within the Greek world, wherein micro-regions form part of broader networks engaging in both short-term and long-term interactions, rather than conforming to spatial or temporal hierarchies centered on notions of centrality or origins (MALKIN, 2003 passim). A novel perspective on this interplay between connectivity and strong communal ties emerges from studies on cult practices, festivals, and communal rituals that fostered profound social bonds rooted in shared memories and experiences (WILLIAMSON, 2022). The application of "small-world networks" theory in archaeology is a burgeoning field, currently under discussion within specific Mediterranean contexts. Anna Collar introduces the notion of external innovations and connections, which may occur randomly and be represented by "weak ties," or successfully diffuse through "connectivity nodes" established by "strong ties," characterized by mutual reliability, shared experiences, and reciprocal memories (COLLAR, 2022).

Considering micro-regions within networks, contemporary research revisits a discourse centered on regionalism, viewing local contexts through the lens of indigenous traditions, elite structures, and local historical narratives. This discourse underscores the significance of the local as an ontological force shaping everyday interactions. However, the discursive impact of locality on society remains largely unexplored. Conceptual dialogues that have greatly informed the understanding of related concepts, such as ethnic or

national identities, are on the cusp of emerging. According to Hans Beck, locality encompasses all manifestations of local culture, knowledge production, and communal beliefs, each rooted in the local context that informs it (BECK, 2018, p. 26).

Local and regional dynamics form part of a broader system that incorporates practices of local significance while remaining receptive to external influences. This system illuminates the transformative nature of cultural exchange, as votive practices assimilate diverse elements, thereby reflecting a nuanced cultural amalgamation rather than outright denial of variations. The comprehension of relationships and their fluid systems, encapsulated within the concept of "glocalism," is intertwined with networks that interconnect insular communities and mainland territories, manifesting in material culture that reflects globalizing trends (MÜLLER, 2016, p. 2).

The discourse on insularity encompasses diverse perspectives, drawing from the works of scholars such as B. Knapp (2007), Broodbank (2002), Hall (1997), Horden and Purcell (2000), and Cherry (2004). Broodbank, for instance, explores island dynamics and the notion of "landscapes" in the Cyclades, examining how living on islands shapes communal identity (BROODBANK, 2000). Knapp expands the scope of insularity beyond physical boundaries, emphasizing its regional dimensions, as exemplified by peraiia's regional interactions (KNAPP, 2007, p. 39). The multifaceted nature of insularity and its impact on cultural identities extends to diverse contexts, including desert oases (ERIKSEN, 1993).

The Archaic period offers fertile ground for exploring the intersection of insularity and identity. Key questions include the role of insularity in shaping ethnic, cultural, and social identities, as well as the mechanisms of connectivity between islands and the mainland. Did interactions between islands foster cultural hybridizations, and were distinct identities evident within the peraiia? These inquiries underscore the need for deeper exploration of insularity to better understand the re-signification of cultural practices and religious artifacts.

The region of Thrace in the Northern Aegean epitomizes the dynamics of contact between Greeks and local populations. Dating back to the 7th century B.C., Thrace exhibits signs of early polis development, characterized by urban centers, demarcated territories, and abundant archaeological finds. Despite extensive excavation efforts by French and American scholars, archaeological research on this region during the Greek Archaic period remains scarce in Brazil. This knowledge gap presents an opportunity to contribute to the understanding of ancient history in Brazil and Mediterranean archaeology, while also enriching research on interregional contacts in the ancient Mediterranean. Moreover, our unique vantage point in

Brazil, with its distinct historical experiences, enables us to contribute to discussions on contact relations, identity formation, and religious practices, considering local contexts and their interconnectedness with broader patterns of interregional connectivity.

III. CONSTRUCTING AND DECONSTRUCTING PARAMETERS OF INTERPRETATION: THEORIZING THE LOCAL

At any given time, a place consists of various parameters that allow for meaningful analysis. In this approach, place has a dual meaning and can be both a physical domain and a metaphorical domain. As a physical domain, place is the accessible and manageable space that individuals experience as they navigate their daily lives. The meaning of the term is close to the concept of neighborhood, a place where social relations take place. In the metaphorical sphere, place is a relational or contextual category. It becomes a point of reference for those who share a common place (MÜLLER, 2016, p. 1).

Hans Beck points out that it is difficult to maintain a binary logic between the local and the global, as one category is fused with the other. According to the historian, studies on cultural globalization show that the local and the global are constantly subject to adaptation and change, in other words, these relationships are never static or watertight (BECK, 2018, p. 26). According to Roland Robertson, the terms "glocal" and "glocalization" enter the debate based on the need to break the idea of binarism, bringing into the debate the new localism that inserts social and cultural practices of the need for internal communal production to external stimuli and vice versa, encompassing the complexity of the "global-local" (ROBERTSON, 1995, p. 27).

In terms of cultural practices and social meaning, the local is invoked as a figure that unites contexts in their imagined community. Locality denotes the long-standing patterns that emerge from association with place. The term encompasses all expressions of local culture, knowledge production, and community belief, each concerning the local horizon that inspires them. Localism is the mindset that prioritizes the sum of these expressions from within over alternative and competing sources of social meaning from outside the community (MÜLLER, 2016, p. 17). In the debate on globalization, then, the local is above all a space for negotiating and adapting to the global, in which it deals with various strategies of aversion and also seclusion to the external. At the same time, connectivity and globalization—or glocalization—lead to new political challenges and cultural patterns of meaning, which as such are larger, more effective, and more successful categories of order than those of the local (BECK, 2017, p. 37). In the case of the Greek polis, it is no longer possible to study individual communities, according to

Vlassopoulos, because the whole process of understanding local events implies seeking answers to supra- or trans-political transformations and processes within the polis's communities (VLASSOPOULOS, 2013, p. 21).

Ancient Greece was a world of accelerating change. From the Archaic to the Hellenistic period, the Greeks experienced expansion as a significant movement of relations. In short, from the 8th century BC onward, the Greek world became larger and larger. As their world expanded, communication within it intensified. The growth of exchange networks facilitated new forms of connectivity. In almost every generation, people, goods, and ideas have moved faster. New transportation arteries have further increased communication, bringing everything closer together. As the mental map of the world expanded, the societies of the Greek polity grew closer together culturally, politically, economically, and religiously (Hodos, 2016, *passim*).

IV. HYPERCONNECTIVITY AND LOCAL STUDIES: CONVERGING CONCEPTS

The investigation of interconnectivity within the ancient Greek world is currently in vogue. The recent surge in interest in network theories, propelled by the prevalence of social media communication on the Internet, significantly contributes to this approach. Vlassopoulos posits that local approaches unveil a post-hyperconnectivity dimension, enabling contemplation of the local transformations and consequences engendered by networks (VLASSOPOULOS, 2013, p. 21). The central query pertains to how political entities have reacted to shifts in the global landscape. It appears that the polis predominantly exhibited a self-referential and socio-centric outlook: self-referential due to its traditions revolving around itself, with citizens and their ancestors as the exclusive focal points of its worldview; and socio-centric because its perspectives were rooted in inherently introspective interpretations, conceived and validated by the prevailing understanding within the community itself (MÜLLER, 2016, p. 28).

It is noteworthy, as Hans Beck emphasizes, that the theory of networks in the Mediterranean does not nullify the embeddedness of local studies within hyper-connectivity. According to Collar, connectivity constitutes a multifaceted phenomenon that both influences and is influenced by social relationships and bonds of trust (BECK, 2021; COLLAR, 2022). In the realm of globalization studies, the local assumes significance as the sphere where connectivity links manifest the real-life dynamics of social relations. This translation finds resonance in the glocal sphere, within the framework of globalization, from a micro perspective, accentuating both diachronic and

synchronic processes (BECK, 2021; DANIELS, 2022). The authors contend that network theory neither can nor should overshadow studies of localism; rather, it underscores the complexity of the so-called "globolethic" (NGUGI WA THIONG'O, 2012, p. 27). Contrary to the common perception that attributes to the local the sole ability to formulate defensive counterstrategies against global advancements, archaeological studies refute this fallacy by highlighting discursive environments and spaces, such as cult markers, which are not confined to a specific place but are "related to" it, encapsulating elements of strong ties that are symbolically significant and adaptable in the context of contact relations (COLLAR, 2022).

Anna Collar's notion of "small world networks" elucidates the role of trusting contacts in fostering successful relationships within the "nodes" of networks, facilitating broader and richer flows of information at regional and local levels (COLLAR, 2022). The profound impacts, novel ideas, trust compacts, and other mnemonic elements exert a profound influence on local narratives, facilitating broader systemic changes (COLLAR, 2022).

Author Megan Daniels (2022) employs the concept of "strong ties" to underscore that the connections forged within local spheres transcend cultural transmission between Greece and other Mediterranean regions. In the context of Thrace, this concept of strong ties also encompasses both synchronic and diachronic dimensions inherent in socio-political relations (DANIELS, 2022). Thrace's hybrid sanctuaries epitomize this interaction, materializing in cult relationships within contact zones, forged through strong ties of trust, exchange, memory, and interaction.

Therefore, the study of localism transcends mere local history. The parochialism of the polis permeates the communicative landscape of societies confined within their socio-cultural domains, a phenomenon observable in the intersection of network and local studies. Collar's concept of "small world networks" enables comprehension of flows in both macro and micro spheres, broadening our understanding of the local process. The notion of localism permeates various facets of human experience. Though often intertwined with notions of ethnic identity and belief, it is distinct from them and holds implications for society at large. From this standpoint, comprehending history and politics, both locally codified and reinforcing the bond between people and land, is a logical progression (MÜLLER, 2016, p. 22). Conversely, Collar sheds light on the bonds of trust and memories forged within the "nodes" of connectivity, which facilitated the configuration of local spaces and narratives enacted and materialized in contact zones (COLLAR, 2022).

V. RELIGION, HYPERCONNECTIVITY, AND GLOCALITY: SANCTUARIES AND CULTS IN LOCAL AND REGIONAL RELATIONS

According to Vlassopoulos, religion and community were deeply intertwined in ancient Greece, especially in the archaic period. On the one hand, Greek religion was communal to a very significant extent; the overwhelming majority of cultic and ritual acts took place in various communal contexts (VLASSOPOULOS, 2015, p. 257). Public and private religious communities were not static, self-proclaimed entities; they were involved in a continuous process of formation, transformation, and dissolution. On the other hand, almost all forms of Greek community had a religious basis in addition to other characteristics. Religion was a powerful means of creating social cohesion and articulating communal identities; but it also constituted an arena in which conflicting visions of relations between humans and between humans and gods were constantly expressed and contested (HANSEN; NIELSEN, 2004, p. 130-133).

Considering the discussions on glocalism and the relationship between Thracians and Greeks in sanctuaries considered hybrids, we base our discussions on relational archaeological data using the contextual method of analysis⁴. In this way, we will attempt to list only those poleis in *peraia* that have sanctuaries with material remains associated with female hybrid deities identified as such. Our goal is to think about the relationships that exist in a particular sanctuary in a particular polis based on what the material allows us to infer.

Conjectures about archaeological material previously observed as Greek or considered Thracian should be evaluated very carefully because the historiographical tradition is accustomed to immediately identifying an object found in a Thracian context as Greek (the product of pure and simple imitation). And in a second moment, on the contrary, the tendency was to conclude that the locally made object had ignored all the external origins and influences that had produced it. In this sense, Alicia Jiménez refers us to the concept of emulation⁵ of objects resulting from contacts between founders and locals (JIMÉNEZ, 2017, p. 29). Potolsky also tells us that the transformation of a repeated "imitation" into an original model (in which a set of characteristics can be recognized in each context and create traditions) occurs through the difference and discontinuity of what was tradition, transformed into something new in the present (POTOLSKY, 2006, p. 54-57).

⁴ Contextual methodology for archaeological analysis allowed us to cross-reference data from artifacts found in specific contexts.

⁵ Emulation (*aemulatio*) is not mere imitation (*imitatio*), but the emergence of something new brought about by the meeting of two or more cultures.

This discussion of tradition and imitation allows us to reflect on the use of the very contemporary concepts of "small worlds networks" presented by Anna Collar (2022) and "strong ties" developed by Megan Daniels (2022). These concepts draw our attention to the practices and synchronic and diachronic dimensions of socio-political networks—closely linked to religion as experienced in hybrid sanctuaries—in regions of intense contact between Greeks and natives, as is the case in Thrace. For example, we can highlight the ties expressed in the dedications of Greek sanctuaries, where "temporary communities" were created. In this sense, according to John Mooring, members of the local elite transmitted innovations in materiality horizontally and vertically (MOORING, 2022, p. 80). In another example, Sandra Blakely and Joanna Mundy draw attention to the hybrid cults of Samothrace and the mediation of connective "nodes" that functioned as bottlenecks or points of information, innovation, and adaptation of local cult needs. "Strong ties" are deeply articulated in symbolic and identity processes that facilitate the diffusion of rites, local variability, and hybridity (BLAKELY; MUNDY, 2022, p. 101).

In this way, we seek to observe the transformation that certain materials have undergone locally by understanding what the archaeological context offers. This transformation occurred, on the one hand, within a dynamic and fluid system of continuous exchange and, on the other hand, through the preservation of traditions.

VI. HYBRID SANCTUARIES AND NEW THEORETICAL ASSUMPTIONS

To think about contact zones and the formation of identities outside the polis, as in the case of the hybrid sanctuaries of *peraia*, a new interpretive look at the data and sources is necessary. For Jan Bouzek, the notion of multiculturalism in the study of Greek foundations in Thrace and the Black Sea brings a clear complexity to the data presented in the excavations. In this sense, local female deities such as Bendis at Abdera, and Parthenos at Neapolis, have been identified and associated with Greek deities of the Archaic period. In this continuum, they appear as local deities associated with the Greek Artemis, with mixed offerings and possibly very close features of divine association and cult (BOUZEK, 1999, p. 16). Identity issues were fluid, and the local naming of deities from the metropolis meant more than just a generalized appropriation of nomenclature from one culture to another, aimed purely at the needs of the founding polis, in this specific case. It is therefore possible to think in terms of situational identity (REBILLARD, 2012). Social identity theory, according to Henri Tajfel, has shown that collective identities are part of individual intergroup actions with

externally defined roles, with defined and situational choices (TAJFEL, 1974).

For Rüpke, the vast amount of material evidence available for the study of ancient religions shaped by the material elements surrounding the deity, from the sanctuary to the objects offered, favors research focused on intergroup studies. The social conditions and individual social agency surrounding the local contact networks at the contextual level of the find should be viewed from the cultural and situationally imbricated elements of specific groups of worshippers, who may be founding Greek women and men who worshipped the goddess Artemis, as well as local people who worshipped Bendis or Parthenos, or two groups situationally integrated into the religious entanglement.

We can think of the process of "small worlds networks" and "strong ties" when we reflect on the social changes and profound effects of the relationship of trustworthiness that incorporates unofficial religious experiences and creates deep ties of integration (COLLAR, 2022). The narratives constructed in hybrid places of worship depend on elements that go beyond dialogue and mere cultural transmission between Greeks and locals (DANIELS, 2022). Longstanding symbolisms and ideologies involving chthonic practices and unusual offerings to the peculiarly Greek deity, or even a radical change in modes of worship, can be identified through contextual data analysis. These are hypotheses that we can raise and introduce into the discussion of local/regional/global processes of interconnected networks in the Mediterranean. Considering the female sanctuaries of the Northern Aegean, the multiplication of female deities metamorphosed into a specific Greek deity has the typical appropriation of the choice of place, limited to a group specifically focused on and open to this contact coming from the founding island polis, as a network of choices and assumptions that usually fit local interests. There are power relations between specific groups of visitors, clearly hybrid objects in the context that can bring to light Thracian identities erased by the colonialist discourse of historiography, through their local deities. The methodological question is being revised concerning the observation of religious phenomena in antiquity. New studies bring to light important data in religious contexts, new theoretical-conceptual and methodological questions, making it possible to observe phenomena such as the agency of individuals in materiality, situational identities, and transformations of local and contextual cults. For Collar, the relationship of strong ties, even if there is isolation, will be a close relationship and fruitful exchange that will strengthen regional ties focused on local aspects (COLLAR, 2022, p. 5).

VII. THE *PERAIA* OF THASOS: HISTORY, THE MAIN SANCTUARIES, AND LOCAL FEMALE DEITIES

Thasos, established by the inhabitants of Paros around 680 BC, played a pivotal role in founding cities on the Thracian mainland during this era. Among these

settlements, our attention will be directed towards the most extensively documented archaeological foundations featuring evidence of hybrid sanctuaries, as recorded in excavation reports. These include Neapolis, Oesyeme, Galepsos, Antisara, and Pistiros (Figure 1).



Source: Earth Explorer, 2018.

Figure 1: Map of Thrace (Northern Aegean). Credit image: Rodrigo Araújo Lima.

Neapolis was founded by Thasos at the beginning of the 6th century BC. By the end of the 5th century BC, this city had already severed its ties with the metropolis (TIVERIOS, 2008, p. 81). The main local female deity was the so-called Parthenos, whose cult was active at the time the Thasians founded the polis in the region. The settlers of Thasos adopted the cult in an attempt to win over the local population (TIVERIOS, 2008, p. 81). The important sanctuary of Parthenos was located in the district of Panayia, in the historical center of Kavala. All the inscriptions indicate that it was a Greek sanctuary. Many materials such as ceramics and votive objects have been found at this site. Among the hundreds of terracotta figurines found during archaeological excavations at the Parthenos sanctuary, there are no identifiable representations of the deity itself or of specific ritual attributes that indicate its peculiarity or its identification with a great Olympian goddess (PROKOVA, 2015). This phenomenon also occurs in the

Artemision of Thasos, where no statuettes of the goddess Artemis were found, or even significant representations on vases of figures of black figures attesting to her identity (HORA, 2018). According to P. Collart, the deity Parthenos is not a direct Hellenized form of Artemis, but a Hellenized form of the goddess Bendis, a Thracian goddess already attributed to Artemis (COLLART, 1937 apud FRANÇOIS, 2010, p. 439). Thus, by the beginning of the 20th century, scholars were already anticipating a hybrid complexity of cults in the region.

The polis of Oesyeme was founded by Thasos in the second half of the 7th century BC, according to written sources (Strabo, *Geography*, 7.35; Thucydides, *History of the Peloponnesian War*, 4.107; Homer, *Iliad*, 8.304; Diodorus Siculus, *Library of History*, 12.68). The oldest remains date back to the second half of the 7th century BC and include mainly local pottery and Thasio-Parthian pottery from eastern Greece (TIVERIOS, 2008,

p. 82). In fact, recent excavations on the Acropolis have revealed a precolonial level dating back to the Early Iron Age. A cave with prehistoric pottery was investigated north of Oesyne, on a small peninsula towards modern Iraklitsa (LAZARIDIS, 1969, p. 13). The cult of the nymphs was practiced in Oesyne at least since the 6th century B.C., a cult that was also popular in Thasos in the Archaic period. In the *BCH*,⁶ vol. 89, there is archaeological and architectural information on sanctuaries dedicated to the nymphs, which may shed light on a cult *koiné* in the *peraia* of Thasos (BRUNEAU, 1965, p. 1008-1015). This connection between the Thracian polis and Thasos can show us close links between peculiar and local cults, especially those practiced by women in the Archaic period.

Galepsos was founded by Thasos in the 5th century BC on the site of Gaïdourokastró, as attested by ancient written sources such as Thucydides (*History of the Peloponnesian War*, 4.107). Inscriptions dating back to the 5th century BC have been found, written in a Thasio-Parthian alphabet (ISAAC, 1986, 64). The island was inhabited by Thracians from the region and this presence is marked by archaeological remains, mainly in funerary contexts. There is evidence of the cults of Zeus Ktesios, Patroios, and Herkeios at Galepsos, while a series of Late Archaic inscriptions on *horoi* (boundary stones) written in the Thasio-Parthian alphabet refer to a female sanctuary of Demeter with a *hekatombedos* temple (GIOURI AND KOUKOULI-CHRYSANTHAKI, 1987, p. 372-373). Sanctuaries are important indicators of hybrid cults. The objects in context can shed light on whether there was a regional relationship between Greek deities that could be worshipped alongside local deities.

Antísara was a Thasian foundation, considered an *empóron*⁷, founded around the end of the 6th century BC, as well as the initial phase of the houses that have been discovered. A sanctuary of Asclepius was found, indicating that his cult replaced another local cult that had existed since the end of the 6th century BC. The area has also produced pottery with evidence of a Thasio-Parian influx dating back to the 7th century BC (TIVERIOS, 2008, p. 86). For the Greeks, the cult of Asclepius was associated with the figure of Hygeia to represent health through healing cults (SALVIAT, 1980, p. 259-273). The two deities appear associated in many contexts in the Mediterranean (LOWRY, 2010, p. 4).

Pistiros was a Thasian *empóron* founded in the 5th century BC near a site called Vetren, Bulgaria. In 1990, its excavations attracted international attention among Thracian scholars. This important discovery

relates to a unique inscription that records a multilateral treaty between three Thracian dynasties—Kersobleptes, Amadokos, and Berisades—and the resident merchants who lived in an *empóron* called Pistiros. The treaty records the rights of resident Greek merchants vis-à-vis other Greek merchants and the local peoples and rulers of Thrace, the rights of Thracian authorities vis-à-vis Greeks residing in Thracian lands, and various economic provisions describing the trade routes used and the inviolability granted to traveling and resident merchants in Pistiros in the 5th century BC (BOUZEK, 1996, p. 221-222; STOYANOV, 2000, p. 55-67). Identifying the site at Vetren as the Pistiros *empóron* is problematic because the finds are atypical for a Greek *empóron*: Most of the pottery found is locally made, while Greek imports are smaller than in other Thracian polis; the number of amphora seals and Greek inscriptions is surprisingly small for a typical Greek *empóron*; and finally, the religious altars found so far, possibly dedicated to female deities, are all considered Thracian, but this issue is still in the early stages of archaeological data collection (ELKOV; DOMARADZKA, 1994, p. 1-15).

VIII. FINAL CONSIDERATIONS

This paper aimed to demonstrate the applicability of theoretical concepts related to insularity and globalization in antiquity, more specifically global and local issues in the *peraia* of Thrace, through material culture in the context of local hybrid sanctuaries. We observed that the concept of the polis has been reworked from a post-colonialist perspective, with an emphasis on the transformations of materiality present in *apoikias* that were influenced by various intersecting identities. We sought to highlight the importance of theoretical reflection on the concept of the local and the parochial, and on insularity in its broadest sense, including local reality, memories, identities, movement of people and things, perceptions of space and distance. We also sought to highlight the interconnectedness of the perception of strong and weak ties that can be rooted in the local sphere through worship and celebration. The connections built by lived memories and experiences, present in the nodes of hyper-connectivity in the Mediterranean, were also the subject of our observations.

The connectivity and the micro and macro movements are in line with a methodology that focuses on the archaeological contexts of the *peraias* of Thrace, a region of paramount importance for understanding the dynamics of relations between the islands of the Northern Aegean and the mainland. To this end, we have made a selection of the most important sanctuaries excavated in the region. The *peraia* of Thassos, especially Neapolis, Oesyne, Galepsos, Antísara, and Pistiros, are particularly important, as they

⁶ *Bulletin de Correspondance Hellénique*.

⁷ Greek term: *ἐμπόριον* (neutral word in Greek). Definition: Maritime trading post; hence a city on the coast with a large port and a great deal of commercial activity. (Taken from: <http://labeca.mae.usp.br/pt-br/glossary/>).

have recorded a lot of archaeological material, especially concerning ceramics and objects considered sites of Greek influence in sanctuaries called hybrid and/or considered Greek.

We conclude by pointing out that Archaeology shows us that the sites considered here as insular demonstrate that the historiographical discourse is not sustainable. There is still much to be studied, but the need for a closer look at locally produced material culture is clear.

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Sacrifices among the Ancient Greeks: Communion with the Divine

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Abstract- This article explores the role of sacrificial rituals in ancient Greek religious practices, emphasizing their function as a means of establishing and maintaining communion between mortals and the divine. Sacrifices were integral to both individual and collective life, marking key transitions such as birth, initiation, warfare, and civic celebrations. Through an interdisciplinary approach combining literary, iconographic, and archaeological sources, this study examines the typologies of offerings, the material and symbolic significance of altars as the focal point of ritual activity, and the complex interplay between sacrificial practices and sociopolitical structures. Particular attention is given to the ideological and performative dimensions of blood sacrifices, as well as to the debated phenomenon of human sacrifice. By analyzing a broad spectrum of evidence, this article contributes to a nuanced understanding of how ritualized violence functioned as a mechanism of religious expression, social cohesion, and power negotiation in the ancient Greek world.

Keywords: *greek sacrifice, ritualized violence, sacred altars, divine communion, religious practice, human sacrifice, archaeology, iconography, classical literature.*

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Sacrifices among the Ancient Greeks: Communion with the Divine

Márcia Cristina Lacerda Ribeiro ^α & Vagner Carneiro Porto ^ο

Abstract- This article explores the role of sacrificial rituals in ancient Greek religious practices, emphasizing their function as a means of establishing and maintaining communion between mortals and the divine. Sacrifices were integral to both individual and collective life, marking key transitions such as birth, initiation, warfare, and civic celebrations. Through an interdisciplinary approach combining literary, iconographic, and archaeological sources, this study examines the typologies of offerings, the material and symbolic significance of altars as the focal point of ritual activity, and the complex interplay between sacrificial practices and sociopolitical structures. Particular attention is given to the ideological and performative dimensions of blood sacrifices, as well as to the debated phenomenon of human sacrifice. By analyzing a broad spectrum of evidence, this article contributes to a nuanced understanding of how ritualized violence functioned as a mechanism of religious expression, social cohesion, and power negotiation in the ancient Greek world.¹

Keywords: *greek sacrifice, ritualized violence, sacred altars, divine communion, religious practice, human sacrifice, archaeology, iconography, classical literature.*

Résumé- Cet article explore le rôle des rituels sacrificiels dans les pratiques religieuses de la Grèce antique, en soulignant leur fonction en tant que moyen d'établir et de maintenir la communion entre les mortels et le divin. Les sacrifices étaient essentiels à la vie individuelle et collective, marquant des moments clés tels que la naissance, l'initiation, la guerre et les

célébrations civiques. Par une approche interdisciplinaire combinant sources littéraires, iconographiques et archéologiques, cette étude examine les typologies des offrandes, la signification matérielle et symbolique des autels en tant que centres d'activité rituelle, ainsi que les interactions complexes entre pratiques sacrificielles et structures sociopolitiques. Une attention particulière est accordée aux dimensions idéologiques et performatives des sacrifices sanglants, ainsi qu'au phénomène controversé du sacrifice humain. À travers l'analyse d'un large éventail de sources, cet article apporte un éclairage nuancé sur la manière dont la violence ritualisée fonctionnait comme un mécanisme d'expression religieuse, de cohésion sociale et de négociation du pouvoir dans le monde grec antique.

Mots-clés: *sacrifice grec, violence ritualisée, autels sacrés, communion divine, pratique religieuse, sacrifice humain, archéologie, iconographie, littérature classique.*

Resumen- Este artículo explora el papel de los rituales sacrificiales en las prácticas religiosas de la antigua Grecia, destacando su función como un medio para establecer y mantener la comunión entre los mortales y lo divino. Los sacrificios eran fundamentales tanto en la vida individual como en la colectiva, marcando momentos clave como el nacimiento, la iniciación, la guerra y las celebraciones cívicas. A través de un enfoque interdisciplinario que combina fuentes literarias, iconográficas y arqueológicas, este estudio examina las tipologías de ofrendas, el significado material y simbólico de los altares como centros de actividad ritual y la compleja interacción entre las prácticas sacrificiales y las estructuras sociopolíticas. Se presta especial atención a las dimensiones ideológicas y performativas de los sacrificios de sangre, así como al controvertido fenómeno del sacrificio humano. Mediante el análisis de un amplio espectro de fuentes, este artículo contribuye a una comprensión matizada de cómo la violencia ritualizada funcionaba como un mecanismo de expresión religiosa, cohesión social y negociación de poder en el mundo griego antiguo.

Palabras clave: *sacrificio griego, violencia ritualizada, altares sagrados, comunión divina, práctica religiosa, sacrificio humano, arqueología, iconografía, literatura clásica.*

Resumo- Este artigo explora o papel dos rituais sacrificiais nas práticas religiosas da Grécia Antiga, destacando sua função como meio de estabelecer e manter a comunhão entre os mortais e o divino. Os sacrificios eram fundamentais tanto na vida individual quanto na coletiva, marcando momentos-chave como nascimento, iniciação, guerra e celebrações cívicas. Através de uma abordagem interdisciplinar que combina fontes literárias, iconográficas e arqueológicas, este estudo examina as tipologias de oferendas, o significado material e simbólico dos altares como centros da atividade ritual e a complexa interação entre práticas sacrificiais e estruturas sociopolíticas. Atenção especial é dada às

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¹ This article is inspired by the chapter on sacrifice in Ancient Greece originally written in Portuguese, from the book *Um presente para os deuses: o sacrifício no mundo antigo* [A gift for the gods: sacrifice in the ancient world], published in Brazil in 2020.

dimensões ideológicas e performáticas dos sacrifícios sangrentos, bem como ao controverso fenômeno do sacrifício humano. Por meio da análise de um amplo espectro de fontes, este artigo contribui para uma compreensão mais aprofundada de como a violência ritualizada funcionava como um mecanismo de expressão religiosa, coesão social e negociação de poder no mundo grego antigo.

Palavras-chave: sacrifício grego, violência ritualizada, altares sagrados, comunhão divina, prática religiosa, sacrifício humano, arqueologia, iconografia, literatura clássica.

"The gods befriend the sensible, and they detest those who do wrong" (Athena to Odysseus: Soph. Aj. 133–135)

"those who worship my power in all humility I exalt in honor. But those whose pride is stiff-necked against me I lay by the heels". (Eur. Hipp. 1–10).

I. INTRODUCTION

In Hesiod's *Works and Days*², he advises his brother Perses to work diligently and to have Demeter as an ally so that his granaries may always be full and his life prosperous and plentiful. The gods, according to Hesiod, favor those who labor and disdain idleness. Among his many pieces of advice to his brother, Hesiod highlights the importance of maintaining a relationship with the gods, emphasizing that their first gift to humanity is sustenance:

According to your capability, make holy sacrifice to the immortal gods in a hallowed and pure manner, and burn splendid thigh-pieces on the altar; at other times, seek propitiation with libations and burnt offerings, both when you go to bed and when the holy light returns, so that their heart and spirit will be propitious to you, so that you may barter for other people's allotment, not someone else for yours.³

This passage from Hesiod underscores the central role of sacrifice in the maintenance of divine favor. By advising Perses to honor the gods with offerings at specific times, Hesiod highlights the reciprocal nature of human-divine relations in Greek thought – piety and ritual correctness ensure prosperity, while neglect invites misfortune.

Hesiod also provides one of the most comprehensive accounts of the Greek pantheon in his *Theogony*, detailing the birth of the gods, their hierarchical spheres, and the ideal relationship that mortals must uphold with the divine for their own well-being. Beyond describing the origins of the gods and their cosmic order, Hesiod's work also serves as a foundational text for understanding the religious education of the Greeks. Mythological narratives played a fundamental role in Greek education, shaping religious beliefs from an early age. The Hymn to Demeter, for instance, recounts the abduction of Persephone by Hades and the desperate search of her mother,

Demeter, through the dark land, culminating in a compromise that allows Persephone to spend part of the year with the Olympians. When the gods are appeased, the fields bloom, the earth is covered with greenery and fruit, and Demeter and Persephone bestow prosperity upon their faithful followers⁴.

The gods of epic literature observe all human affairs and frequently intervene in mortal lives. A striking example is the extensive list of benefits that Hecate offers to those devoted to her. Hesiod describes how she was greatly favored by the gods, from the Titans to Zeus, who bestowed upon her many privileges, making her a formidable deity. Even in Hesiod's own time, he asserts, any man who invokes Hecate with proper sacrifices and rituals could achieve glory and wealth. Hecate's sphere of influence is vast: she aids orators in courts and assemblies, grants *kléos* to warriors, ensures victory for athletes and cities, increases fishing yields, expands herds, and nurtures young women. However, her power is also ambivalent, capable of bestowing misfortune as well as favor⁵.

The gods, therefore, hold multiple functions and bear numerous epithets. Zeus, who established divine order by overcoming primordial forces and distributing authority among the Olympians, manifests in various domains: Zeus of Oaths, Zeus of Borders, Zeus Protector of Suppliants and Foreigners, Zeus of Rain, and Zeus of Lightning. From private life to public affairs, from birth to death, human destiny is intrinsically linked to the will of the gods. Given this reality, communion between mortals and the divine is essential at every stage of life. Religious rituals – expressions of the human-divine bond – accompany individuals from birth to death, marking moments of celebration, war, and even truces. Reciprocity defines this relationship: the gods determine human fortune, whether favorable or adverse, while mortals must honor and revere them through sacred observances. Sacrifices stand at the core of this exchange. According to Theophrastus, sacrifices to the gods are performed for three primary reasons: to honor them, to express gratitude for a favor received, or to request divine assistance⁶.

Greek cities maintained extensive calendars of public festivals, reinforcing the continual and enduring connection between the gods and the polis through numerous rituals, particularly sacrificial ones. These festivities also strengthened civic unity. In addition to major festivals, smaller community and family celebrations were held, alongside the four major Pan-Hellenic festivals, during which people and delegations from various poleis gathered. The Olympic and Nemean Games were dedicated to Zeus, the Pythian Games to Apollo at Delphi, and the Isthmian Games to Poseidon.

² Hes. *WD*. 296–319.

³ Hes. *WD*. 336–341.

⁴ Massi, Carvalho 2010.

⁵ Hes. *WD*. 411–452.

⁶ Bremmer 2007, p. 139.

This study examines the nuances of the relationship between mortals and gods in ancient Greece, with particular focus on sacrifices involving bloodshed. It discusses both the rewards of a harmonious relationship with the divine and the consequences of neglecting such obligations. Additionally, it explores the types of offerings made, the process and circumstances of blood sacrifices, and the central role of the altar as the locus of ritual activity. Drawing on a wealth of literary and archaeological evidence, this analysis primarily engages with epic poetry, tragedy, and iconographic sources.

It is crucial to recognize that the ancient Greek world was neither monolithic nor static in time or space. In the Classical period (5th–4th centuries BCE), Greece extended from Phasis, a Greek colony on the Black Sea, through the coasts of Asia Minor, to Massalia, the southern Italian peninsula, and Sicily, encompassing numerous islands⁷. This vast territory comprised more than a thousand autonomous cities, each with distinct political structures, economic systems, and social dynamics. While scholars debate the origins and defining elements of Hellenic identity⁸, one unifying factor is indisputable: religion. However, religious practices were not uniform across all poleis – differences in calendars, the prominence of specific deities, and local cultic traditions reflected regional diversity.

The ritual of animal sacrifice exemplifies this variation. As Bremmer observes⁹, sacrifices became more elaborate and specialized during the Archaic period, paralleling the rise of urbanization and economic prosperity. By the 5th and 4th centuries BCE, sacrificial ceremonies featured specialized attire for officiants and increasingly sophisticated rituals centered around the altar. Thus, sacrifice should not be viewed as an immutable practice but rather as a dynamic tradition that evolved in response to the shifting needs, beliefs, and socio-economic conditions of the Greek world.

a) *The Many Gifts to Gods*

In the extensive list of gifts offered to the gods, we find objects of all kinds: buildings of worship, statues, artistic artifacts, garments, tools, and even slaves. Eteocles declares that if he defeats the invading army, he will dedicate the enemy's garments, torn by his spear, to the sacred abode of the gods¹⁰. Similarly, in *Ion*, when the protagonist introduces himself to Creusa as a slave of the god, she asks him: "Are you a city's votive gift or were you sold by someone?"¹¹.

In a white-ground *lekythos* from the Classical period, attributed to the Bowdoin Painter (Figure 1), a

winged woman is depicted placing or, more likely, collecting offerings from an altar. This figure is presumably Niké, the personification of victory. According to Hesiod¹², Niké – or Victoria in Latin tradition – is the daughter of Styx and the hybrid deity Pallas. Styx was the first immortal to present herself to Zeus alongside her four children, offering them in service to his cause against the Titans. As a reward, Zeus granted her many honors, including eternal proximity to the Olympians. Hesiod describes Victoria as having beautiful ankles, and she is consistently depicted with wings. In an alternate mythological tradition, she appears closely associated with Athena.

⁷ Finley 1998.

⁸ See Hall 2001.

⁹ Bremmer 2007, p. 132.

¹⁰ Aes. Sev. 2008a.

¹¹ Eur. *Ion*. 2013c: 310.

¹² Hes. *The*. 383–385.



Source: Ribeiro Júnior 2000.

Fig. 1: Winged woman depositing (or removing) offerings at an altar. White-ground lekythos attributed to the Bowdoin Painter, dated 475-450 B.C. Athens, National Archaeological Museum.

Hesiod's *Works and Days* (2006b) outlines three principal ways of honoring the gods: animal sacrifices, offerings, and libations. Within this vast spectrum of devotional practices, firstfruits offerings (*aparchai*) hold a prominent place, particularly in the context of an agrarian and patriarchal society. This type of offering acknowledges the hierarchical order of the cosmos – those who are first (the gods) receive the first portion of human labor¹³. It was common for a pious farmer to bring the first fruits of his harvest to the shrine. Other offerings could include the bounty of hunting, fishing, or household production, which were either deposited in sacred places for redistribution or entirely destroyed

through incineration. In the latter case, the offering transcends into a sacrifice through its complete annihilation¹⁴.

Votive offerings (*anathemata*) functioned differently. In this form of devotion, a gift was dedicated to the deity in exchange for divine favor. The nature of the offering varied significantly, ranging from minor personal possessions to substantial donations requiring significant expense. These could include firstfruit offerings, enhanced sacrifices, enslaved individuals destined for temple service, tracts of land integrated into a temple's holdings, or even war spoils. Life's uncertainties – fear, illness, journeys, warfare – often prompted individuals or entire communities to vow gifts to the gods. These vows were made publicly, in the presence of witnesses, reinforcing the reciprocal nature of divine-human relations. Once a request was granted, fulfilling the promise became an obligatory act of piety¹⁵.

¹³ Marcel Detienne (1979, p. 10) draws attention to the political dimensions of sacrificial rituals in ancient Greece. The hierarchy established is not only between humans and gods but also among individuals within the polis. According to Detienne, no political power can be exercised without sacrificial practice. Whether entering into confrontation with an enemy, suspending a treaty, working with a temporary commission, opening an assembly, or assuming command as a magistrate, many activities begin with a sacrifice accompanied by a communal meal.

¹⁴ Burkert 2007, p. 93.

¹⁵ Burkert 2007, p. 95–97.

In Figures 2 and 3, we observe warriors cutting their hair in ritual offerings. In an Attic white-ground *lekythos* (Figure 2), the Nikon Painter depicts a warrior severing locks of his hair as a votive offering before battle. A similar scene appears in Figure 3, where a

warrior – the fifth figure from the left – cuts his hair. Thanks to an inscription identifying him as Parthenopeus, this representation has been linked to Aeschylus's *Seven Against Thebes*. It is possible that the *lekythos* painting similarly references this tragedy¹⁶.



Source: Ribeiro Júnior, 2002.

Fig. 2: Warrior cutting his hair. White-ground *lekythos* attributed to the Yale Painter, dated 470-460 B.C. New York, The Metropolitan Museum of Art. Photo: P. Chabot, 2000 (MET).



Source: Ribeiro Júnior 2003.

Fig. 3: Red-figure *hydria*, attributed to the Mannerists, Date: 470-460 B.C.

Shigaraki, Miho Museum. The scene depicts a group of warriors preparing for battle. One figure is cutting his hair, possibly as part of a pre-war ritual, while others handle weapons and armor. The composition emphasizes the solemnity of the moment before departure.

¹⁶ Ribeiro Júnior 2013.

According to Aeschylus, Parthenopeus was one of the seven champions of the Argive army, assigned to the fifth gate of Thebes – Boreas. While the depicted warrior appears engaged in a religious act, Parthenopeus himself is described in the play as a youthful, nearly beardless fighter, with no mention of a hair sacrifice. Instead, his defining characteristics are his defiance and impiety. Bold and audacious, he swears by his spear rather than by any god, vowing to take Thebes regardless of Zeus's will. This overconfidence in personal martial prowess, placed above divine authority, is not unique to Parthenopeus; other warriors in *Seven Against Thebes* display similar arrogance. Capaneus, for instance, openly insults Zeus, boasting that he will raze Thebes with or without divine aid¹⁷. Likewise, another Argive, Eteoclus, bears the inscription on his shield: "Not even Ares will cast me from these battlements"¹⁸. The hydria (Figure 3) was cataloged in the Beazley Archive, with its decoration attributed to the *Seven Against Thebes* cycle¹⁹.

Walter Burkert²⁰ observes that "by dedicating his hair, a man offers a part of himself to a higher power; a loss that must be recognized as painless and quickly replaced". While this perspective minimizes the gravity of the act, it is crucial to consider the religious significance of hair offerings. In the *koureion*, a rite of passage conducted during the Apatouria festival, a young man's entrance into his *phratry* (kinship group) is marked by an animal sacrifice performed by his father. The culmination of the ceremony occurs when the youth, now accepted into the community, offers a lock of hair to the deity of the *phratry*²¹. Similarly, in funerary rites, presenting a lock of hair to the deceased was among the most sacred familial obligations.

In the *Atrides* saga, Orestes²², upon his return to Argos after years of exile, performs sacrifices and libations at his father's grave. His most significant act, however, is the dedication of his hair – a scene depicted in *The Libation Bearers* (Aeschylus), *Electra* (Euripides), and *Electra* (Sophocles). In Euripides's *Orestes*, Helen, fearing the resentment of the Argives, hesitates to go to Clytemnestra's tomb and instructs Electra to carry an offering of hair and libations. When Electra refuses, unable to face her mother's grave, the task is passed to Hermione.

In general, all deities received offerings, including chthonic ones. Offerings to underworld deities, however, followed rituals fundamentally different from those dedicated to Olympian gods. Chthonic rites took

place at night, without an altar, and the sacrificial victim's flesh was entirely consumed in fire, leaving nothing for human feasting. In Gela, Sicily, chthonic deities possessed the largest number of sacred precincts, and their cult was among the most ancient²³. Some gods, such as Demeter and Poseidon, encompassed both chthonic and Olympian attributes²⁴.

Despite the variety of offerings, the most prestigious was food – particularly animal sacrifice, which Burkert describes as "the sacred act par excellence"²⁵. The nature of the bloody sacrifice varied according to the deity and the social context. The most noble victim was the cow (especially the bull), while the most common were sheep, followed by goats and pigs. Poultry such as chickens, geese, and pigeons, as well as fish, were also sacrificed²⁶. Jan N. Bremmer²⁷ notes that the age of the sacrificial animal varied by region: in Didyma, adult animals were preferred, while in Kalapodi, younger ones were more commonly sacrificed. Gender and color also played a role; male animals were generally dedicated to gods, while female ones were offered to goddesses. Black animals were typically sacrificed to chthonic deities. Regardless of these variations, the sacrificial victim had to be in perfect condition. Sparta was an exception to this rule, performing small and inexpensive sacrifices, sometimes involving mutilated animals – possibly reflecting its distinctive ideology.

Certain deities had particular preferences: bulls were associated with Zeus and Poseidon; deer and goats with Artemis and Apollo; pigs with Demeter and Persephone. In chthonic rituals, pigs were cast into underground pits dedicated to Demeter and Persephone, their remains retrieved months later by women who then integrated them into agricultural rites to ensure abundant harvests²⁸. This form of sacrifice contrasts sharply with Olympian rituals, where a portion of the victim was retained for communal feasting.

Regardless of its nuances, at the root of sacrifice is the renunciation of precious food resources in the name of a good relationship with the god and the benefits that result from it. Hesiod, in his exhortation to Perses, makes it clear that the sacrifice must be limited to the means of the person making the offering. Bremmer recalls that sacrifice is a ritual obligation that involves an economic issue, as an animal entails a cost. Aegisthus was preparing a sumptuous sacrifice to the Nymphs on his farm when he was murdered by Orestes. Electra, on the other hand, could not afford the same ritual of purification for the supposed birth of her son – an elaborate ruse to lure her mother into a trap and

¹⁷ Aes. Sev. 425–430.

¹⁸ Aes. Sev. 465–470.

¹⁹ The vase can be seen at <https://www.carc.ox.ac.uk/XDB/ASP/recordDetails.asp?recordCount=1&start=0>

²⁰ Burkert 2007, p. 97.

²¹ For the religious significance of depositing a lock of hair and the obligation of the family members, see Pucci 1967.

²² Eur. Ore. 95, 110–125.

²³ Hirata 2014, p. 91.

²⁴ Vernant 2006, p. 53.

²⁵ Burkert 2007, p. 27.

²⁶ Burkert 2007, p. 27.

²⁷ Bremmer 2007, p. 134–137.

²⁸ Carvalho 2010, p. 284.

commit matricide. The princess and her husband were very poor; when they received Orestes and his small entourage, they barely had enough to eat²⁹. Yet poverty was no excuse for neglecting divine rites. When Clytemnestra prepares to perform a ritual, usually conducted by a midwife, Electra ensures that the ritual basket and knife are ready. Unlike Electra, Xuthus organizes a grand feast at the Sanctuary of Apollo in Delphi to celebrate the newly discovered son he had long sought: “*Let us inaugurate our life together by holding here, where I have found my son, a public banquet, and make the sacrifices omitted at your birth*”³⁰.

At its core, sacrifice entailed renouncing valuable food resources to maintain harmony with the gods and secure divine favor. Hesiod, in his exhortations to Perses, emphasizes that sacrifices should be proportional to the means of the offerer. Bremmer reminds us that sacrifice was both a religious obligation and an economic decision, as an animal represented a significant expense³¹.

b) *The Altar*

While the temple is the abode of the god and a space for the exhibition of offerings³², the altar serves as the essential link between humanity and the divine – the *locus par excellence* of sacrifice. Euripides’ *Ion* provides a vivid depiction of the altar, emphasizing not only its role in sacrificial rituals but also its sacred and inviolable nature, which renders it a place of asylum. Beyond being the focal point of sacrifices, the altar’s sacrality also made it a place of divine protection, where supplicants could seek refuge. The orphan Ion, having been raised in the temple of Loxias at Delphi, is responsible for maintaining the temple’s exterior, while selected Delphians oversee its interior. He welcomes and guides visitors, ensuring the cleanliness of the sanctuary. With a laurel broom, he dutifully sweeps the altar, and using golden vessels, he draws virgin water from the Castalian spring to sprinkle upon it. Ever vigilant, he wields a bow to drive away birds that threaten to desecrate the sanctuary with their nests and droppings. Ion’s entire existence revolves around the temple and its altar, which serve as both his home and his source of sustenance. He eats from the offerings left at the altar³³, dons the god’s garments, and sleeps within the temple precincts³⁴.

The altar also functions as a place of refuge for supplicants, as Aeschylus notes: “*An altar is stronger*

than a towering wall; it is an unbreakable shield”³⁵. In *Ion*, Creusa, upon being discovered attempting to murder her own son under the false belief that he is a bastard of her husband, is condemned by the law of Delphi. Desperate, she clings to the altar, just as she had done before, when she had previously sought divine intervention to conceive a child. Finding her in this position, Ion, though bound by sacred law to respect the sanctity of the altar, is tormented by the injustice of the situation:

O this is monstrous! The laws of god for men are not well made, their judgment is unwise. The unjust should not have the right of refuge at altars, but be driven away. For gods are soiled by the touch of wicked hands. The just, the injured party, should have this asylum. Instead, both good and bad alike all come, receiving equal treatment from the gods.³⁶

Violating the sacredness of the altar can provoke divine wrath. Priam’s murder upon the household altar consecrated to Zeus, Ajax’s brutal seizure of Cassandra from the altar of Athena, and Agamemnon’s impious union with a consecrated maiden all incite Athena’s fury. Formerly an ally of the Achaeans, the goddess shifts allegiance and proposes a blood pact with Poseidon, patron of the Trojans. This alliance unleashes calamity upon the victorious Greeks, as storms and divine retribution devastate their fleet during their return voyage³⁷.

Maintaining favor with the gods required establishing firm and beneficial bonds, the most appropriate means being animal sacrifice. The altar (*bomós*) was the designated space where the sacrificial animal, adorned and ritually prepared, was led – supposedly voluntarily. Sacrifice days were festive occasions for the community, marked by ceremonial attire³⁸. Depictions on ceramic vases illustrate *ephebes* struggling to subdue sacrificial animals, restraining them by their feet or necks. In Euripides’ *Electra*, country maidens learn of the festival of Hera and eagerly invite Electra to join: “*The Argives proclaim at large a holy feast, when all the maidens will pass in procession up to the temple of Hera*”³⁹. Electra, however, declines, lamenting her disheveled and impoverished state. Unlike the well-adorned Argive women, she disdains gold ornaments and fine attire. Even when her friends offer to lend her elegant robes and jewelry, she refuses. In Figure 4, a sacrificial procession is depicted, showing young women with elaborately styled hair, elegant garments, and crowned heads – contrasting sharply with the image of Electra, whose shaved head, ragged clothes, and utilitarian water vessel set her apart. Unlike the ritual vessels seen in Figure 4, her vessel serves a purely domestic function.

²⁹ Eur. *Ele.* 2013b.

³⁰ Eur. *Ion.* 650-655.

³¹ Bremmer 2007, p. 133.

³² The temples at Delphi and Olympia housed numerous monuments dedicated to honoring and thanking the gods for the benefits granted to both individuals and cities. These monuments aimed to physically assert their identity and power. See Scott 2010.

³³ Eur. *Ion.* 50-55, 323.

³⁴ Eur. *Ion.* 315, 327.

³⁵ Aes. *Supp.* 190.

³⁶ Eur. *Ion.* 1312-1319.

³⁷ Eur. *Tro.* 1-97.

³⁸ Burkert 2007, p. 27.

³⁹ Eur. *Ele.* 170-175.



Source: Wikimedia Commons. Accessed April 12, 2022.

Fig. 4: *Sacrificial Procession*. Painting on a wooden panel found in Pitsa Cave, dated to 540 B.C. Athens, National Archaeological Museum. Ekdotike Athenon S.A. Karouzou, National Museum, Athens, 1999.

As depicted in Figure 4, the sacrificial procession advances to the sound of the aulos and lyre, with all eyes fixed upon the altar. The sacrifice is dedicated to an Olympian deity, as indicated by the raised altar. A noble young woman, likely a virgin, pours a jar of lustrous water into another vessel. The fire is already lit, while a young man stands nearby, holding a tray and ritual implements. A boy calmly leads a ram, bound at the neck, towards the altar. Young women carry crowns and ribbons, possibly to adorn the altar and the sacrificial animal.

Bremmer⁴⁰ notes that sacrificial animals were adorned in various ways, depending on the wealth of the offering community – ranging from golden ornaments to more modest decorations such as ribbons and garlands adorning the neck and belly. The ritual depicted in Figure 4 is a collective action, with each participant playing a specific role. Though women dominate the scene, including one standing at the altar, this does not imply that she will conduct the sacrifice. The act of slaughtering the animal was reserved for men, while women traditionally performed the ritual cries (*ololygmos*) at the moment of the fatal blow⁴¹.

Eteocles, in *Seven Against Thebes*, rebukes the chorus of women who despair at the advancing Argive army. To him, their excessive lamentations spread fear and weaken the resolve of Theban warriors. He commands them to remain silent and follow proper ritual protocol: “*And when you have heard my prayers too, then raise the sacred chant for victory, with good heart, and follow the Greek custom of crying out over sacrifice,*

an encouragement for friends, releasing them from war’s fear”⁴².

Any citizen could perform a sacrifice, provided they were ritually pure and free of miasma. Purity was a fundamental requirement, as demonstrated by Orestes, who became impure after committing matricide. Alongside this principle was the custom that only men could conduct the beheading of the sacrificial victim. Eteocles, addressing the Theban women’s chorus, underscores the gendered division of roles: “*Men’s part is this, to offer the gods victims in sacrifice and for divination when testing their enemy; your part, however, is to be silent, and to stay inside the house*”⁴³.

The altar was the focal point of the sacrificial rite, but another space held great importance for the participants: the *hestiatorion*, or banquet hall. This communal dining area was used for feasting, drinking, and music following the sacrifice. Temporary huts and tents were erected for such occasions. Archaeological evidence across multiple sanctuaries has revealed remains of banquet halls capable of accommodating hundreds of people, as well as ceramic and faunal remains linked to ritual consumption⁴⁴. In Apollo’s sanctuary, Xuthus, having just met his newly discovered son, Ion, requests that he construct a *hestiatorion* to celebrate:

Ion had the framework built in ritual form on upright poles without a wall, and paid attention to the sun, so that he might avoid its midday and its dying rays of flame, and measuring a square, its sides a hundred feet, so that he could invite all Delphi to the feast.⁴⁵

⁴⁰ Bremmer 2007, p. 133-134.

⁴¹ Bremmer 2007, p. 137.

⁴² Aes. Sev. 265–270.

⁴³ Aes. Sev. 229–231.

⁴⁴ Tabone 2013, p. 4.

⁴⁵ Eur. *Ion*. 1133–1140.

This passage underscores the centrality of the altar not only as a place of sacrifice but also as a communal gathering space, reinforcing religious and social cohesion. Whether through ritual slaughter, public festivals, or acts of supplication, the altar remained the principal site of divine-human interaction in the ancient Greek world.

c) *The Ritual*⁴⁶

In the messenger's speech in Euripides' *Electra*, we find a vivid account of the ritual preparations leading up to the sacrificial beheading. Two aspects stand out: the participation of servants in the ritual and the cunning murder committed by the sacrificer at the altar. Aegisthus is on his farm, preparing a sacrificial rite to the Nymphs. Orestes encounters him in the garden, where Aegisthus is picking sprigs of myrtle to adorn his hair. Aegisthus warmly invites him to join the others in the feast, as he intends to sacrifice a bull to the Nymphs. The first step is the purification of the guests so they may approach the altar and partake in the ritual. Orestes assures Aegisthus that he and his companions have already purified themselves in the waters of a river and are thus ready.

The servants begin their preparations for the momentous occasion: "*Now the king's bodyguard laid down their spears and sprang all hands to working. Some brought the lustral bowl, and others baskets of grain, some laid and lit the fire or around the hearth set up the sacred ewers – the whole roof rang with sound*"⁴⁷. Aegisthus takes the barley grains and scatters them at the altar's base, pleading with the Nymphs of the rocks. He then retrieves the sacrificial knife from the ritual basket, trims a portion of the ox's hair, and places it upon the altar's fire with his right hand. The slaves lift the animal, while Aegisthus beheads it. Following this, he invites Orestes to carve up the animal. Orestes, displaying remarkable dexterity, skins the hide and exposes the flanks. Aegisthus proceeds to inspect the victim's entrails, a customary practice to determine divine approval of the sacrifice. However, he notices something ominous – part of the liver is missing, the very organ used for reading omens: "*The liver lobe was missing. But the portal vein and gall sac showed disaster coming at him even as he looked*"⁴⁸. In this perverted sacrifice, there will be no feast, as the host himself becomes the sacrificial victim at the foot of the altar.

Euripides presents this sacrificial ritual as a *corrupted sacrifice*. According to Froma Zeitlin⁴⁹, corrupted sacrifices are inverted rituals in which "*violent actions of bloodshed are portrayed not as murder, but as*

murder in sacramental garb, that is, a ritual slaughter"⁵⁰. In such cases, the officiant is not a priest with religious authority but rather the head of the household in a private or familial ceremony.

At the origin of the sacrificial rite lies the deception of Prometheus. As recounted by Hesiod⁵¹, at a banquet in Mecone, when gods and mortals still dined together, Prometheus prepared an ox, dividing it into two portions to deceive Zeus. In the first portion, he hid the nourishing meat and entrails beneath the ox's stomach lining, making it appear unappealing. In the second, he placed the bones covered with gleaming fat, making it seem the more desirable choice. Although Zeus recognized the trick, he chose the less nourishing portion and was filled with rage against both humans and the Titan. Prometheus had unwittingly caused great harm to mortals, as his deception resulted in the necessity of sacrifices to honor the gods: "*And ever since then the tribes of human beings upon the earth burn white bones upon smoking altars for the immortals*"⁵².

Zeus' wrath extended to both humans and Prometheus. First, he deprived mortals of fire. Prometheus, in defiance, stole a spark and gifted it to humanity. In retaliation, Zeus devised an even greater punishment – he created woman. As for Prometheus, he was condemned to eternal torment, bound to a mountain range. This ruse disrupted the shared commensality between gods and mortals, forcing them into separate spheres. From that moment on, only the smoke and aroma of sacrifices belonged to the gods, while the consumption of meat was left to humans. The sacrificial ritual, a consequence of this cosmic rupture, does not restore the original harmony but serves to establish a structured relationship between mortals and deities. The gods accept sacrifices and take pleasure in them, while humans partake in consecrated meat through communal feasts⁵³.

The sacrificial fire delineates the boundary between the divine and the mortal. However, unlike the eternal flame of the gods, human fire is artificial and requires constant maintenance. While it serves practical functions such as cooking, it also plays a symbolic role in bridging the gap between mortals and immortals, as its ascent toward the heavens mirrors the offering of sacrifices on the altar⁵⁴.

⁴⁶ Daniel Ullucci, in his text *Sacrifice in the Ancient Mediterranean: Recent and Current Research*, from 2025, makes a relevant criticism of the use of the term ritual.

⁴⁷ Eur. *Ele.* 797–803.

⁴⁸ Eur. *Ele.* 825–830.

⁴⁹ Zeitlin 1970, p. 464.

⁵⁰ In a paper published in *Oxford Readings in Classical Studies: Euripides*, Froma Zeitlin (2003) uses the concept of "corrupted sacrifice" to describe the murder of Clytemnestra, which took place in the context of the ritual sacrifice for the birth of Electra's son, as well as the murder of Aegisthus while he was performing a rite to the Nymphs (Zeitlin 2003, p. 261-284).

⁵¹ Hes. *The.* 536.

⁵² Hes. *The.* 556–557.

⁵³ Vegetti 1994, p. 243.

⁵⁴ Vernant 2006, p. 64.

Animal sacrifice, therefore, is foremost a religious rite involving the ritual slaughter of a domestic animal, following prescribed steps to honor a deity and establish a reciprocal bond between the sacrificer – whether an individual or a community – and the divine recipient. However, as Bremmer⁵⁵ points out, beyond its religious significance, the ritual also carries economic, political, social, and cultural dimensions. It provides an opportunity to display physical strength and social status, reinforce group identity, and partake in communal feasting.

Naiden⁵⁶ further emphasizes that the smoke produced by sacrifices acts as a medium carrying offerings to the gods, reinforcing the intended connection. In Aegisthus' case, however, the smoke does not signify communion but rather foreshadows his downfall. His sacrifice, tainted by deception, becomes an inversion of the ritual's intended purpose, leading not to divine favor but to his demise.

d) *The Communion with the Sacred*

The communion with the sacred ensures the proper order of both the community and the individual. Conversely, its rupture results in personal ruin and societal destabilization, endangering everyone. According to Burkert, Vernant, and Detienne, worshippers experienced mutual solidarity within ritualistic frameworks. Ancient sources support this perspective: Plato suggests that sacrifice should foster familiarity and cooperation among citizens, while Athenaeus describes sacrificial banquets as moments of collective enjoyment. However, solidarity is only part of the picture – what remains is communion. As Burkert states, “*the solidarity of mortals before mortals*” – the camaraderie among worshippers – does not exclude divine involvement. Rather, their unity depends on the god's response. They form a group with the deity, not apart from it. Without the god, they lack form⁵⁷.

A fundamental division persists between sacrifices classified as common, communal, dedicatory, or ordinary and those considered piacular, expiatory, propitiatory, or atoning – an analytical framework stemming from early modern studies on sacrifice. Hubert and Mauss argued that these categories were interrelated, as they believed the sacrificial victim simultaneously embodied holiness – creating a connection with the divine – and carried away impurities. Similarly, Jay contended that both communion and atonement sacrifices served to reinforce collective identity. Conversely, Bell's framework posits that these practices are inherently different. She distinguishes between sacrifices as rites of exchange or communion and those meant to purge pollution or illness – rites of affliction. While the former seek to confirm and maintain

the status quo, the latter aim to restore or transform. This distinction has led some scholars to view them as separate practices. For instance, Joseph Henninger explored these contrasts in his contributions on sacrifice and scapegoat in the first edition of the *Encyclopedia of Religion*⁵⁸.

Literature frequently illustrates how the gods punish those who disrespect or fail to honor them. Aphrodite, for example, ruthlessly punishes Hippolytus because the young hunter devotes himself solely to Artemis, excluding the love goddess and scorning her domain. His *hamartia* – his fatal mistake – is believing that Artemis alone is sufficient, rejecting Aphrodite entirely. As a result, he meets an agonizing death, condemned by his father, Theseus, who falsely believes Phaedra's accusations against him. The entire plot is orchestrated by Aphrodite, who, at the beginning of the prologue, declares:

those who worship my power in all humility I exalt in honor. But those whose pride is stiff-necked against me I lay by the heels. There is joy in the heart of a god also when honored by men⁵⁹.

Even Artemis, Hippolytus' protector, cannot alter his fate, acknowledging the divine hierarchy:

“For it was Cypris managed the thing this way to gratify her anger against Hippolytus. This is the settled custom of the gods: No one may fly in the face of another's wish⁶⁰.”

Similarly, in *The Bacchae*, Euripides portrays the devastating consequences of failing to honor Dionysus. Pentheus and his family deny the god's worship in Thebes, prompting the deity to instigate madness among the Bacchic women. In their delirium, they mistake Pentheus for a lion and tear him apart, with his own mother, Agave, delivering the first fatal blow while entranced. Likewise, Ajax meets his downfall due to Athena's wrath. Before departing for Troy, his father advises him: “*My son, he said, you should aspire to triumph in the field, but always with a god's support*”⁶¹. However, Ajax, blinded by arrogance, dismisses the warning. He fails to grasp Hesiod's wisdom – that the wisest man is one who listens to good counsel:

The man who thinks of everything by himself, considering what will be better, later and in the end-this man is the best of all. That man is fine too, the one who is persuaded by someone who speaks well⁶².

Ajax responds with hubris: “Even some nonentity might triumph, father, with the gods to help. I can, I trust, acquire the glory-crown without their aid”⁶³. His defiance extends even to Athena herself. When the goddess urges him against his enemies, he scorns

⁵⁵ Bremmer 2007, p. 144.

⁵⁶ Naiden 2013.

⁵⁷ Naiden 2013, p. 118.

⁵⁸ Demaris 2013, p. 66.

⁵⁹ Eur. *Hipp.* 1–10.

⁶⁰ Eur. *Hipp.* 1325–1330.

⁶¹ Soph. *Aj.* 760–770.

⁶² Hes. *WD.* 293–295.

⁶³ Soph. *Aj.* 760–770.

divine assistance. Later, when enraged at his companions over Achilles' armor, Athena deceives him, causing him to attack a herd of livestock, believing them to be his rivals. Once the illusion fades, he is left with no choice but to take his own life.

In *The Iliad*, Book I, Chryses, a priest of Apollo, seeks to ransom his daughter from the Achaeans. Bearing sacred ribbons and the golden scepter, he entreats Agamemnon and the Greek commanders. Despite his appeal, Agamemnon refuses, scorning both the priest and the god's authority. Humiliated, Chryses prays to Apollo:

"Hear me, lord of the silver bow who set your power about Chryse and Killa the sacrosanct, who are lord in strength over Tenedos, Smintheus, if ever it pleased your heart that I built your temple, if ever it pleased you that I burned all the rich thigh pieces of bulls, of goats, then bring to pass this wish I pray for: let your arrows make the Danaans pay for my tears shed"⁶⁴.

His prayer follows a structured formula: first, he invokes the god's name; second, he identifies the deity's sphere of influence; third, he recalls past acts of devotion; and finally, he presents his request. Apollo responds immediately, unleashing a plague upon the Achaeans⁶⁵. Only a proper sacrificial ritual, including the return of Chryses' daughter and a sacred hecatomb, can restore order. Agamemnon, recognizing the gravity of the situation, concedes:

And they washed it away and threw the washings into the salt sea. Then they accomplished perfect hecatombs to Apollo, 31 5 of bulls and goats along the beach of the barren salt sea. The savour of the burning swept in circles up to the bright sky"⁶⁶.

Upon reaching Chryse, Odysseus and his men dock their ship. Odysseus, representing Agamemnon, returns the girl and offers a sacred hecatomb. Again, the ritual follows a sequence: the altar is constructed, purification is performed, prayers are offered, barley grains are scattered⁶⁷, the victim is sacrificed, and the meat is distributed in a communal feast accompanied by music and libations.

"And the men arranged the sacred hecatomb for the god in orderly fashion around the strong-founded altar. Next, they washed their hands and took up the scattering barley. Standing among them with lifted arms Chryses prayed in a great voice: 'Hear me, lord of the silver bow, who set your power about Chryse and Killa the sacrosanct, who are lord in strength over Tenedos; if once before you listened to my prayers and did me honour and smote strongly the host of the Achaians, so one more time bring to pass the wish that I pray for. Beat aside at last the shameful plague from the

Danaans.' So, he spoke in prayer, and Phoibos Apollo heard him. And when all had made prayer and flung down the scattering barley first, they drew back the victims' heads and slaughtered them and skinned them, and cut away the meat from the thighs and wrapped them in fat, making a double fold, and laid shreds of flesh upon them. The old man burned these on a cleft stick and poured the gleaming wine over, while the young men with forks in their hands stood about him. But when they had burned the thigh pieces and tasted the vitals, they cut all the remainder into pieces and spitted them and roasted all carefully and took off the pieces. Then after they had finished the work and got the feast ready they feasted, nor was any man's hunger denied a fair portion. But when they had put away their desire for eating and drinking, the young men filled the mixing bowls with pure wine, passing a portion to all, when they had offered drink in the goblets. All day long they propitiated the god with singing, chanting a splendid hymn to Apollo, these young Achaians, singing to the one who works from afar, who listened in gladness"⁶⁸.

Thus, respect for the gods is imperative for both individual and communal well-being. The Greeks' violation of sacred altars by enslaving Chryseis and rejecting the priest disrupted divine order. Only renewed communion through atonement restored their equilibrium. The concept of *miasma* – spiritual contamination – extends beyond legal and moral transgression, bringing divine vengeance upon the guilty and their descendants. As Vernant and Detienne note⁶⁹:

It is a guilt that transcends the limits of legal and moral order, bringing divine vengeance upon the culprit and spreading both in space – affecting the community that harbors it – and in time – relentlessly impacting the descendants of the tainted, as happened to the tragic families of the Labdacids and the Atreids. The idea of *miasma* likely has material origins, symbolizing the dirt, filth, and stain of those who live under or outside the norms imposed by their social community. It manifests, in a literal sense, in the blood-stained hands of the murderer and in the wounds of those who cover the body of one believed to suffer divine punishment.

Both the *Iliad* and the *Odyssey*, along with other tragedies, are replete with accounts of sacrifice. When Telemachus arrived early in the morning in Pylos in search of news about his father, Odysseus, the city was engaged in a grand sacrificial ritual dedicated to Poseidon. There were nine guilds of five hundred men seated, each with nine bulls prepared for sacrifice. A total of eighty-one animals had their viscera and thighs offered to the gods⁷⁰. Nestor and his sons, accompanied by many companions, presided over the

⁶⁴ Hom. *Il.* 37–42.

⁶⁵ Hom. *Il.* 65–67.

⁶⁶ Hom. *Il.* 314–317.

⁶⁷ Unlike the plants in wilderness, grains imply work upon the soil, farming, and therefore, a civilized life. See Vernant 2006, p. 65. Burkert classify fruits of agriculture – the barley and the wine – as marks of a "domestic life": Burkert 2007, p. 82.

⁶⁸ Hom. *Il.* 447–475.

⁶⁹ Vegetti 1994, p. 236.

⁷⁰ Hecatomb does not necessarily refer to the sacrifice of a hundred animals, as this case demonstrates. Walter Burkert suggests that the term *hecatomb* originates from Indo-European sacrificial traditions and is better understood as meaning "reproducing cows," a magical act of multiplication that is only marginally present in the Greek context. See Burkert 2007, p. 27.

feast, as some roasted the meat while others placed it on skewers. Upon seeing the foreign visitors, they promptly invited them to partake in the festivities.

Nestor's son served a cup of sweet wine and a plate of viscera to Mentor (Athena in disguise), who was to summon the host – the sovereign Poseidon. Mentor then directed the prayer to Poseidon, first invoking the god to grant glory to the king and the citizens before

asking for blessings upon Telemachus and himself⁷¹. As instructed by Nestor's son, Mentor then passed the two-winged libation cup to Telemachus, who, following his example, prayed in the same manner. This was followed by a sumptuous banquet where all present ate and drank freely. Only after the guests had been welcomed, their libations made, and food and drink served at will, did the time come for conversation.



Source: Classical Art Research Center. Available at: <http://www.arthistoryreference.com/t145/20243b.htm>. Accessed on: March 9, 2023.

Fig. 5: Heracles leading a bull to sacrifice. Black-figure amphora attributed to the Andokides Painter, Date: c. 550-500 B.C. Oxford, Classical Art Research Center.

⁷¹ Hom. *Od.* 1-65.



Source: Ribeiro Júnior 2004a.

Fig. 6: The god Apollo performing a libation. Detail of an Attic kylix with white a white-ground background, in the style of the Pistoxenos Painter, c. 480-470 B.C. Delphi Archaeological Museum.

This principle recurs throughout the *Iliad* and the *Odyssey*. When Telemachus arrives in Pylos searching for Odysseus, he finds the city engaged in an elaborate sacrifice to Poseidon, with Nestor and his sons presiding over the ritual, distributing meat and wine in a communal banquet. Likewise, even the gods observe sacrificial customs, as illustrated in Figures 5 and 6. In Figure 5, Heracles, draped in his Nemean lion skin, leads a bull to sacrifice. In Figure 6, Apollo, adorned in fine robes and a crown, pours a libation while holding his lyre – a testament to the enduring sacred bond between gods and men.

e) “The Human Sacrifices”

Alongside libations and various offerings, a unique form of sacrifice emerges – human sacrifice involving bloodshed. Mythological literature and iconography record scenes of such rituals, and archaeological discoveries have revealed human remains suggestive of sacrificial contexts. However, modern scholars remain divided on the interpretation and acceptance of this practice among the Greeks, as no definitive evidence confirms its ritualistic existence.

Naiden⁷² notes that Meuli distinguished animal sacrifice from plant and human sacrifice. The combination of blood and bloodless sacrifices equated

animal and vegetable waste, a perspective unchallenged by Robertson Smith and Durkheim. Hubert and Mauss argued that offerings needed to be destroyed, though not necessarily through death, thereby equating plant and animal offerings. For these scholars, human sacrifice was inherently linked to cannibalism. Meuli, however, downplayed plant offerings and regarded human sacrifice as exceptionally rare. Outside of tragic contexts, human sacrifices appear infrequent in Greek sources, and even within tragedy, human victims were never treated the same as animal victims.

Daniel Ullucci critiques the term “human sacrifice” arguing that its evaluative connotations hinder objective scholarly analysis. He observes that while the term is frequently applied to ritual killings – specially in non-European contexts – it often obscures the motivations and perceptions surrounding these acts. For instance, how did the individuals involved conceptualize their deaths? Ullucci suggests that the Christian framing of Jesus’ death as the ultimate sacrifice influences modern interpretations, making human killings appear naturally aligned with sacrificial concepts. He highlights Rives’ (1995) analysis of ancient Mediterranean discourse, which shows that accusations of human sacrifice were often deployed to depict others as barbaric, reinforcing the notion that such claims were often strategic rather than factual. Consequently, Ullucci

⁷² Naiden 2013, p. 8.

argues that “human sacrifice” is not a useful scholarly category⁷³.

In the case of ancient Greece, as we are observing, archaeological, visual, and textual documentation offer valuable clues for considering the issue. Two of the most well-known myths involving human sacrifice are those of Polyxena, daughter of Priam and Hecuba, and Iphigenia, daughter of Agamemnon and Clytemnestra. Both figures appear across multiple artistic media – vases, sculptures, funerary stelae, sarcophagi, and paintings – as well as in literature. While their stories share thematic similarities, their sacrifices serve distinct purposes: Polyxena is demanded by the ghost of Achilles, a human, as an offering to his tomb, whereas Iphigenia is claimed by Artemis, a deity. Thus, human sacrifice appears in different contexts and is dedicated not only to the gods. Notably, in *Ion*, Creusa tells the eponymous hero that his father, Erectheus, sacrificed his sisters for the sake of the homeland⁷⁴.

In *The Trojan Women*, Talthibius vaguely alludes to Polyxena’s fate, stating that she will serve at Achilles’ tomb – an ambiguous remark that Hecuba initially interprets as indicating that her daughter will be a mere handmaiden in the afterlife. Later, Andromache reveals the grim reality: Polyxena has been immolated at Achilles’ grave. Andromache, overcome with grief, wraps the girl’s body in a *peplos* and mourns her loss⁷⁵.

A more detailed account of Polyxena’s sacrifice appears in *Hecuba*. Upon learning that Polyxena, her youngest daughter, is to be immolated at Achilles’ tomb, Hecuba reacts with horror. Achilles’ ghost had appeared before the Danaans as they prepared to leave Troy, protesting that his grave had not been honored. The Greek assembly was divided but ultimately decided to offer the girl as a sacrifice to appease Achilles’ spirit, which had demanded the sacrifice to secure the fleet’s departure from Troy. Odysseus was tasked with seizing Polyxena from her mother, while Neoptolemus was designated as the sacrificer. In a desperate bid to save her daughter, Hecuba invoked past favors, reminding Odysseus of the time he had sought sanctuary in her palace and had been spared. Now, she assumed the role of supplicant, pleading for Polyxena’s life. Questioning the necessity of such an act, she asked: “*What kind of necessity requires the shedding of human blood upon a grave, where custom calls for cattle?*”⁷⁶. However, Odysseus dismissed her pleas, stating that he could not alter Polyxena’s fate – his only power extended to sparing Hecuba herself, whom he had been granted as a slave.

Unlike her mother, Polyxena quickly resigns herself to her fate. Although she mourns for Hecuba, she sees death as a preferable alternative to slavery: “*I do not care to live, but call it happiness to die*”⁷⁷. She urges her mother to cease pleading and instead embrace their final moments together. In contrast to the humiliations of enslavement, Polyxena views sacrificial death as a dignified end, echoing Andromache’s lament in *The Trojan Women*. She is then taken by Odysseus, and following the sacrificial rite, her body is returned to Hecuba for burial.

The herald narrates the sacrificial act in vivid detail. Neoptolemus leads Polyxena by the hand to a high mound, while selected youths stand ready to restrain her like a heifer. As the priest, Neoptolemus holds a full chalice and pours a libation to his deceased father. He then calls for silence, a moment of solemnity before addressing the dead hero:

Father Achilles, Peleus’ son, receive this offering I pour to summon your spirit up. Rise and drink this gift we give to you, this virgin’s dark blood. Be gracious to us: set free our ships and loose our mooring ropes. Grant to us all our day of coming home, grant us all to come home safe from Troy!⁷⁸.

Following Neoptolemus’ invocation, the entire army joins in prayer. The priest then unsheathes his sword and signals for the attendants to lift the victim. At this moment, Polyxena asserts her agency – she declares that she willingly embraces her sacrificial fate, wishing to die as a free woman. She tears her *peplos*, exposing her chest in a final act of defiance, surrendering herself to the sacrificial blade. Despite the emotional turmoil surrounding the event, Neoptolemus proceeds with the ritual, striking the fatal blow. Polyxena’s blood spurts onto the ground as those present observe mourning customs: some scatter leaves upon her body, others build a pyre, and all ensure that she is properly adorned in a *peplos* for burial.

The myth of Polyxena’s sacrifice, much like that of Iphigenia, reflects complex intersections between ritual, honor, and divine appeasement in Greek thought. While these narratives reinforce the ideological function of sacrifice, they also reveal tensions surrounding the necessity and morality of human offerings. Whether intended for gods or heroic spirits, the act of human sacrifice in Greek mythology remains a subject of debate – both in antiquity and in modern scholarship.

⁷³ Ullucci 2015, p. 414-415.

⁷⁴ Eur. *Ion*. 277–278.

⁷⁵ Eur. *Tro*. 2013h.

⁷⁶ Eur. *Hec*. 260–265.

⁷⁷ Eur. *Hec*. 214–215.

⁷⁸ Eur. *Hec*. 530–545.

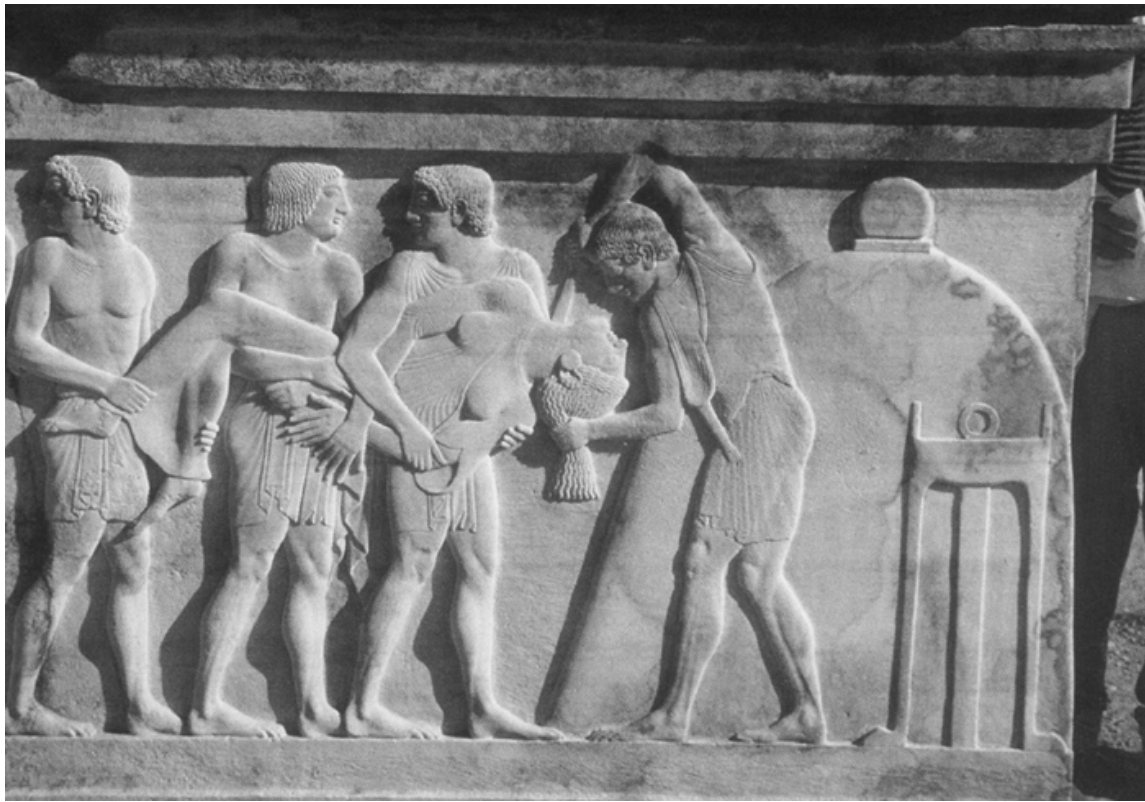


Fig. 7: The sacrifice of Polyxena. Detail of the black-figure Attic amphora, attributed to the Timiades Painter, c. 575-525 B.C. British Museum. London (inv. 1897.2-27.2). Available at: Wikimedia Commons. Accessed on: March 7, 2022.

In the detail of the Attic amphora (Figure 7), we see Polyxena facing down (prone), suspended by three dressed warriors harmoniously distributed in the scene. They keep her immobile and in a straight horizontal position. Neoptolemus, as indicated by the inscription below his left thigh, suspends her head and beheads her, making the blood flow freely from the sword to Achilles' tomb in various directions, under the gaze of the warriors who accompany the ritual. While Polyxena, in the play by Euripides performed around 425 BC, dismisses the chosen men and offers her bare chest to the sacrifice, the Timiades Painter, to whom the amphora in Figure 7 is attributed, painted the same scene with young warriors assisting the sacrificer approximately one hundred years earlier.

In the detail of the sarcophagus relief (Figure 8), we see another variant of the Polyxena myth, carved around 500 BC. The sarcophagus was discovered in 1994 in the province of Çanakkale, Turkey, near the site of ancient Troy; it contained the remains of an adult male. In the cutout shown, beardless young men, not dressed as warriors, participate in the ritual. Three of them hold the victim, whose body is awkwardly positioned facing up. Two young men turn their faces away from the beheading, while the third does not look directly at the act. The sacrificer, in turn, holds the girl by the hair, pulling it downward while intently examining her throat, ready to deliver the blow. Notably, the sacrifice does not take place on a tomb or an altar; the altar

representation may be the tripod displayed on the far right of this side of the sarcophagus.



Source: CARC, University of Oxford. Available at: <https://www.carc.ox.ac.uk/dictionary/Dict/image/polyxena2.jpg>. Accessed on: March 3, 2022.

Fig. 8: Detail of a sarcophagus from Çanakkale, near Troy, Dated to around 500 B.C. Çanakkale Archaeological Museum. Troy Project, University of Tübingen.

Let us examine the human sacrifice to the goddess Artemis: that of the young Iphigenia, daughter of Agamemnon and Clytemnestra. The myth is portrayed in several passages of literature by different authors and periods – Hesiod, Stesichorus, Aeschylus, Sophocles, and Euripides – and in various artistic forms – ceramics, painting, bronze, reliefs, and marble. However, the most complete accounts of the myth of Iphigenia are found in the fully preserved plays *Iphigenia in Tauris* and *Iphigenia in Aulis*, both penned by Euripides. The latter recounts the young woman's journey from Argos to the altar in Aulis, where she is ultimately replaced by a doe at the moment of her supposed execution.

Summoned by Menelaus, the Greek leaders and their soldiers gather in Aulis, in Boeotia, the land of Artemis, forming the Hellenic army that will march on Troy. Everyone is anxious for battle. Still, Artemis holds them back and demands from the Danaans a propitiatory sacrifice: the winds, the rocking of the waters, and the birds have all disappeared, and the thousand ships remain motionless; there is only silence. The seer Calchas delivers the oracle that Iphigenia, Agamemnon's daughter, must be offered in sacrifice. Torn by doubt but convinced by Menelaus, Agamemnon sends a cunning message to Clytemnestra, asking her

to send the girl to Aulis, under the pretext of marrying Achilles, who is unaware of the plan. Later, overcome by remorse, Agamemnon sends another message in an attempt to stop Iphigenia's departure; however, Menelaus discovers his plan. In the ensuing argument, Agamemnon declares that he is bound to the gods and will be forgiven by Artemis for his actions, stating: "*But in heaven there is intelligence – it can perceive oaths bonded in evil, under compulsion sworn*"⁷⁹.

The messenger arrives with the news that Iphigenia is already in Aulis, and the crowd rushes to see her. Everyone is preparing for different rituals: the messenger, Clytemnestra, and Iphigenia believe she will marry Achilles, while the army knows that the maiden is to be sacrificed. There is a duality between the wedding ritual and the human sacrifice, reflected in the messenger's speech:

They're making the marriage offering to Artemis, Aulis' queen, but who will be the bridegroom? So, let's prepare barley for sacrifice, let us crown our heads with garlands, and you, King Menelaus, start the bridal hymn! Oh, let the pipes be played, and there should be dancing within the

⁷⁹ Eur. *IA*. 394–395.

pavilion, since for the maid this day should dawn in happiness⁸⁰.

The marriage metaphor continues in Agamemnon's despair: "Soon, it seems, Hades will marry her"⁸¹. Subsequently, in his dialogue with Clytemnestra, Achilles is furious upon discovering that the Achaeans have invoked his name in their deceit, and he threatens: "Calchas next makes sacrifice he'll find bitter the barley and the holy water"⁸². Unaware that Clytemnestra already knows her daughter has been promised to Artemis, Agamemnon continues weaving the deception around the false marriage:

"Send for the child from the pavilion to join her father. But first listen to me: the lustral waters have now been prepared and the barley to throw on cleansing fire; victims – heifers – are ready, their black blood soon to flow in honor of Artemis"⁸³.

Iphigenia throws herself at her father's knees, pleading for her life, recalling their shared affections and past conversations; she asks him to look at her and kiss her. Agamemnon, however, insists that Greece is greater than himself and his family, arguing that the sacrifice is necessary to protect their homeland from the barbarians. Suddenly, the entire army erupts in fervor, demanding the sacrifice and threatening to stone Achilles for opposing it. At this moment, in a dramatic transformation, Iphigenia embraces her fate, willingly choosing to die gloriously for the freedom of Greece: "O Mother, if Artemis wishes to take the life of my body, shall I, who am mortal, oppose the divine will? No – that is unthinkable! To Greece I give this body of mine"⁸⁴.

Iphigenia turns her sacrifice into a festive and joyful ceremony. She instructs the attendants on the proper order of the ritual: first, young men must chant a paean of glory to Artemis; then, the priest should take the barley from the ritual baskets while the host remains silent, and the fire should be lit; finally, her father must approach the altar on the right, and she must be crowned and blessed with lustral waters, all amid dancing in honor of Artemis.

The messenger recounts the events of the sacrifice. Despite Iphigenia's voluntary approach to the altar, Agamemnon turns away, covering his face with his robe. Each participant takes their position, and the ritual proceeds. Talthylus proclaims sacred silence. Calchas crowns the princess and prepares the ritual basket, placing the unsheathed sword inside. Achilles, basket in hand, circles the altar and addresses the goddess:

O child of Zeus, O slayer of wild beasts, you who turn your disk of shining light through the night's shadows, receive this sacrifice which we make to you – we the Achaean host and the king Agamemnon – unblemished blood from the

neck of this fair girl. And grant that unharmed now the fleet may sail; and grant this too, that we and our spears destroy the battlements of Troy⁸⁵.

At the moment of execution, a thunderous sound is heard. Everyone lowers their heads. The sacrificer strikes the blow, but an astonishing sight appears – a magnificent doe lies on the blood-soaked altar instead of Iphigenia. Calchas declares: "you see this victim which the goddess had laid upon the altar, a mountain hind? Rather than the maid, this victim she receives"⁸⁶. Unlike traditional sacrifices, the animal is entirely consumed by fire, prayers for the army's safe journey are made, and the Greeks set sail for Troy. The play suggests Iphigenia's resurrection: "this day beheld your child die, and come alive again"⁸⁷. Later, she will be found by her brother Orestes in Tauris, serving as a priestess of Artemis, as depicted in *Iphigenia in Tauris*.

In *Aeschylus' Agamemnon*, the priest provides a few brief details about the scene of Iphigenia's sacrifice: the virgin's supplications to her father prove futile. Agamemnon prays and then orders his servants to hold her like a goat, lifting her over the altar and gagging her mouth to prevent her from cursing her family. At this moment, the chorus interrupts: "I neither know nor say the rest"⁸⁸. Thus, in the Aeschylean version of the myth, there is no mention of a substitution at the sacrifice; instead, Iphigenia herself is immolated.

In the detail of the crater (Figure 9), the painter represents the sacrifice of Iphigenia as a replacement sacrifice. At the center, in the foreground, is the altar. On the left, a beardless young man holds a tray in his left hand, which will be used to perform the rite. Behind the altar stands the sacrificer, probably Agamemnon; in his right hand, he raises the sacrificial instrument, pointing it toward the victim(s). On the right, Iphigenia and the doe appear almost as a single figure, both standing at the same height, as the animal is supported on its hind legs. The young woman, positioned in the foreground with her head lowered, appears as serene as the doe, which stands beside her, seemingly shielding her body. On the left, a woman observes the ritual from a distance, likely the goddess Artemis, while further back, elevated, stands a nude male figure, usually associated with Apollo.

The term "substitutes" implies that a ritual takes place and is then replaced by an object; however, the variety of these objects suggests a more complex relationship between substitutes and rituals. Within the connection between worshipper and deity, some elements were ritualistic actions, while others were material objects. The chain of associations could be extensive, making it pointless to attempt to count its

⁸⁰ Eur. *IA*. 435–440.

⁸¹ Eur. *IA*. 461.

⁸² Eur. *IA*. 955.

⁸³ Eur. *IA*. 1110–1114.

⁸⁴ Eur. *IA*. 1394–1400.

⁸⁵ Eur. *IA*. 1570–1580.

⁸⁶ Eur. *IA*. 1590–1595.

⁸⁷ Eur. *IA*. 1610–1615.

⁸⁸ Aes. *Aga*. 248.

links – just as it would be to quantify all animal and plant sacrifices. Comparing one link to another would also be imprecise. Just as no sacrifice could be equivalent to the Parthenon, no single object could replicate the

diverse impact of *thusia*. These two forms of expression functioned in a complementary manner. In this sense, and in others, sacrifice operated simultaneously as both an artifact and a type of behavior⁸⁹.



Fig. 9: The sacrifice of Iphigenia. Detail of the apulian red-figure krater by the Ilioupersis Painter, Date to 370-350 B.C. London, British Museum. Reference: K. Servi, Greek Mythology, Athens, 1998. Available at https://www.britishmuseum.org/collection/object/G_1865-0103-21. Accessed on: March 2, 2025.

II. CONCLUSION

Once the harmonious coexistence between men and gods was broken, a rigid hierarchy was established between them. Positioned at such distant poles, mortals were left with only the necessity of communion with the divine. Subject to the adversities inherent to their condition, human beings sought a balanced life through their relationship with the deities.

The forms of interaction varied widely: from the simplest offerings, such as the first fruits of the harvest, to grand donations, such as large tracts of land or objects of symbolic value, like locks of hair and soldiers' weapons, frequently deposited in sanctuaries. However, it was especially food – animal sacrifice – that most pleased the gods. While the gods were satisfied only with the aroma of the offerings, humans consumed the meat, symbolically reaffirming their mortal nature. In return, the gods could punish or favor individuals and communities, in a system of reciprocity fundamental to maintaining social and religious order.

Written records, iconographic representations, and archaeological evidence reveal the centrality of sacrifice in ancient Greek culture. From temples, coins, and vases to inscriptions and sculptures, the Greeks left material traces of their devotion, which align with literary accounts of the meanings and functions of these practices. Thus, by considering this diversity of sources, this text adopts an interdisciplinary approach, combining textual, iconographic, and archaeological data to investigate sacrificial rituals in their historical and cultural complexity.

Furthermore, we seek to engage with the academic tradition that has shaped studies on sacrifice in Ancient Greece, addressing both classical scholars such as Marcel Detienne and contemporary researchers like Daniel Ullucci. This study respects the latest discussions in the field, recognizing that the search for a

⁸⁹ Naiden 2013, p. 128.

single definition of sacrifice is problematic and that its practice varied widely over time and space. Instead of a rigid approach, we emphasize the diversity of rituals, including not only animal sacrifice but also plant offerings and libations, as well as the theoretical tensions regarding their meaning and function. This is particularly relevant to contemporary discussions on rituals and human sacrifices in antiquity, which continue to be the subject of intense academic debate. Far from being homogeneous and static practices, accounts of human sacrifice must be understood within their historical and cultural contexts, avoiding anachronisms and reductionist interpretations. Moreover, it is necessary to reconsider the disproportionate emphasis that this theme has received over the decades, often at the expense of a more balanced analysis of the broader diversity of religious rituals in Ancient Greece.

In this article, we treat sacrifice as a multifaceted phenomenon, structured by different interrelated procedures and practices. Rather than seeking a fixed definition, we focus on identifying the essential activities that characterize sacrificial events. To achieve this, we draw on the iconography of Greek ceramics, which reflects the sociocultural and religious realities of the time, and compare it with textual sources that, in their own way, also seek to express the lives and religiosity of the ancient Greeks.

By articulating ancient literature, iconography, archaeology, and modern academic debate, this research contributes to a broader understanding of the role of sacrifice in Ancient Greece. More than mere acts of ritual violence, these rituals played crucial roles in structuring civic identity, organizing society, and defining relationships between humans and gods.

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Comet 2P/Encke Observed in Ancient and Mediaeval Korea

By Yong-Gi Jong, Gang-Jin Ri & Jik-Su Kim

Abstract- In this paper, making use of the observational data of Comets observed in Ancient and Mediaeval Korea, we anew elucidated the observational history of the comet 2P/Encke become well known up to now. We found that out of comets corresponding to a few hundred observed in ancient and mediaeval Korea, the observations of comets the periods of which was approximately 3.3year amount to 32 cased. This means that the comet 2P/Encke which had been discovered in AD 1786 in western world had been in AD 54, it had been already observed 32times in Korea up to AD 1638.

Keywords: periodic comet, Encke comet, history of Korea astronomy.

GJHSS-D Classification: LCC: QB723.E53



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Comet 2P/Encke Observed in Ancient and Mediaeval Korea

Yong-Gi Jong ^a, Gang-Jin Ri ^o & Jik-Su Kim ^p

Abstract- In this paper, making use of the observational data of Comets observed in Ancient and Mediaeval Korea, we anew elucidated the observational history of the comet 2P/Encke become well known up to now. We found that out of comets corresponding to a few hundred observed in ancient and mediaeval Korea, the observations of comets the periods of which was approximately 3.3year amount to 32 cased. This means that the comet 2P/Encke which had been discovered in AD 1786 in western world had been in AD 54, it had been already observed 32times in Korea up to AD 1638.

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I. INTRODUCTION

Commencing from BC 275, in Korea, the astronomical phenomena recorded through observations for about 2000 years amount to more than ten thousand [9, 14-17]. Out of them the observation of comets, beginning from the observation of comet 27P/Crommelin in BC 44, amounts to a few hundreds. However, in the book "Physical Characteristics of comets" by Vsekhsvyatskii published in 1964, the observation data of comets recorded in ancient and mediaeval Korea are quite absent [11].

In the book "Cometograph" by Kronk [12], the historical and scientific data on comets observed from Before Christ investigated synthetically, but the study of comets observed in ancient and mediaeval Korea has a number of shortcoming that some of them missed.

The observational data of comets observed in ancient and mediaeval Korea are making important contribution to the study of modern cometary astronomy [10, 13].

For example, Ref [13] elucidated that the Comet 27P/Crommelin discovered in AD 1547 in western world had been discovered in BC 44 in ancient Korea and had observed 16 times up to AD 1547.

In this paper, on the basis of experience found the Comet 27P/Crommelin in Ref [13], from the observation dates of comets amounting to a few hundreds, by a method calculating the period, we performed the quest for finding the periodic comets.

II. ANALYSIS OF THE OBSERVED DATA

In the ancient and mediaeval times, in the absence of telescope, one would have observed comets by naked eye, and therefore, mainly luminous comets would have been observed and recorded. Therefore, we have chosen the Comet 2P/Encke discovered in AD 1786 as a luminous comet. Its period is 3.3 year [11]. Therefore, we quested the comet that the difference of observational dates was divided by an integer when one divides by 3.3 year. The results are presented in Table 1 and they correspond to appearances of the Comet 2P/Encke, which amount to 32 times.

In Table 1, the first date of observation of the comet in Gregorian calendar, the same date recorded in original chronicle, constellation where comet appeared, period, number of observed days, size of comet, and finally name of country observed the comet beside Korea are presented.

The periods presented in Table 1 are not the true period determined through the calculation of orbital elements. Those periods are values closest to 3.3 year, a multiplication of which by an integer yields the difference of neighboring observation dates.

According to Table1, the Comet 2P/Encke had orbited 524 times from AD54 to AD 1786 when its period is assumed to be 3.3 year. According to Ref [11], the period of the Comet 2P/Encke in a duration from AD 1786 to AD 1954, changed between 3.281 year and 3.318 year. ($\Delta T=0.037$ year).

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Table 1: List of observations of Comet 2P/Encke

Julian Date	Original Date	Constellation	Period (Year)	Duration of Observation (Day)	Length	Note for Reference
54.February	Yu Ri Wang 31 th year, 2 nd month	Ja Mi Won(Dra, UMa, Cep, Cam)	3.3	1		Italy, China
153.October	Il Song Wang 20 th year, 10 th month	East, North-East	3.02	1		Korea
186.October	Cho Go Wang 21 th year, 10 th month	West-North	3.3	20		Korea
383. September	So Su Rim Wang 13 th year, 9 th month	West-North	3.28	1		Korea
640.January	Mu Wang 41 th year, 1 st month	West-North	3.24	1		Korea
647.August	Jin Dek Wang 1 st year, 8 th Month	South	3.79	1		Korea
676.July	Mun Mu Wang 16 th year, 7 th month	BukHa(Gem), Jok(Per)	3.21	1	6~7bo	Japan, China, Europe
683.October	Sin Mun Wang 3 rd year, 10 th month	Ogo (Aur)	3.63	1		China
699.February	Hyo So Wang 8 th year, 2 nd month	East	3.07	1		Korea
759.April-May 1 st	Kyong Dok Wang 18 th year, 3 rd month		3.16	spring-autumn		Korea
838.November	Hui Gang Wang 3 rd year	West	3.18	1		China, Japan, Germany
1006	Mok Jong Wang 9 th year		3.34	1		Korea
1019.February 6	Hyon Jong Wang 9 th year, 12 th month, JongSa day	Chon Si Won, Jong Jeng, JongYin, Si Ru(Ser, Per)	3.48	1		Korea

1075.November 18	Mun Jong Wang 29 th year, 10 th month, Byong Syn Day 11.18	Jin	3.29	1	7ja	China, Japan
1220.February 20 1220.December	Go Jong Wang 7 th year	Gu Ryong, Hen Won, Buk Du(Leo, UMa)	3.39	2.6	3ja	Japan
1299.January 24	Kyong Ho Wang(Chong Ryl Wang)24 th year, 12 th month, GapSul day	South	3.31	1		China, Japan, Deutschland
1364.march 30	Kyong Ho Wang (Kong Min Wang)13 th year, 2 nd month, Syn Yu day	Tae Mi Won/Dae Gak Song/Buk Du/Je(vir, Boo, Uma, Lib)	3.38	1	1ja	Korea
1381.November 7-22	UWang 7 th year, 10 th month, Yim Syn Day	Jo (Lib)	3.53	15	1gil	Egypt, Japan, Russia
1391.May11-22	Kong Yang Wang 3 rd year, 4 th month, Gap Ja day	Ja Mi Won(Dra, Uma, Cep, Cam)	3.17	10		Egypt, Syrian, China
1404.March 1 st	Tae Jong Wang 4 th year Gap Syn Year, 1 st month, Yim Sul day	East	3.15	1		Korea
1417.May 17	Tae Jong Wang 17 th year, Jong Yu year, 3 rd month, Jong Hae day	East	3.30	1		Korea
1449.December 26- 1450. January 30	Se Jong Wang 32 th year Kyong O year, 1 st month	Chon Si Won(Ser, Her, Oph, Aqr)	3.29	36		China1
1506.July 29	Yon San Gun Wang 12 th year Byong Yin year, 7 th month, Jong Hae Day	Ja Mi Won(Dra, Uma, Cep, Cam)	3.32	1		China, Japan
1529.Septembe r1-18	Jung Jong Wang 24 th year, Gi Chok year, 7 th month, Yim Sul Day	West/China8.4- 9.2	3.29	18	4~5ja	China
1539.April 20	Jung Jong Wang 34 th year, Gi Hae year, 4 th month	Sam Tae, Hen Won(Leo, UMa)	3.31	44	4~5ja	China
1549.March7	Myong Jong Wang 4 th year, Byong Jin year, 2 nd month, Gi Yu day	North-West	3.28	1		China
1578.Octover	Sonjowang 11 th year	Jang	3.28	2~3month		China

1595.July 25	Son Jo Wang 28 th year, UIMi year, 6 th month	Dong Jong(Gem)	3.36	35		Korea
1601.December 20	Son Jo Wang 34 th year, Syn Chok Year, 11 th month, 26 th day		3.23	1	2~3ja	Korea
1618. August 28-31 1618.November 23- 1619.January 13	Gwang Hae Gun Wang 10 th year, Mu O year, 6 th month Gwang Hae Gun Wang 10 th year, MuO year, 10 th month	North-East Chon Sang, Jong Tae, Jang, Je, Ju Jong, Sep Je, Song(Boo, Lib, Vir)	3.32	4 73	1gil	China, Europe
1621. January 22	Kyong Ho Wang 12 th year, 12 th month		3.49	18		China
1638. May	Yin Jo Wang 16 th year, Mu Yin year, 5 th month	South-East	3.28	1 month		Korea

However, in Table1, the longest period is 3.78 year, and the shortest one is 3.12 year and its difference is $\Delta T=0.66$ year, but this difference is not difference produced from the exact periods, as mentioned above. However, the average of the periods presented in Table 1 is 3.31year and is close to the true period 3.3 year.

In Table 1, out of the 32 observations of the Comet 2P/Encke, the comet observed AD153, AD 186, AD 640, AD 647, AD 683 AD 699, AD 1006, AD 1404, AD 1417, AD1459, AD 1595, AD 1601 and AD 1638 are observed exclusively in Korea. Remaining observations had been performed also in China, Japan, Deutschland, Italy and so on, and therefore, dates of first appearance

of the comet and sites of the comet were able to compare each other. A number of was different from one to other [12, 18-21].

Now, let us consider the variation of absolute magnitude H_{10} of the Comet 2P/Encke, which is expressed by following formula

$$H_{10} = m - 5lg\Delta - 10lgr$$

where m is apparent magnitude of the comet, Δ is geocentric distance and r is heliocentric distance of the comet.

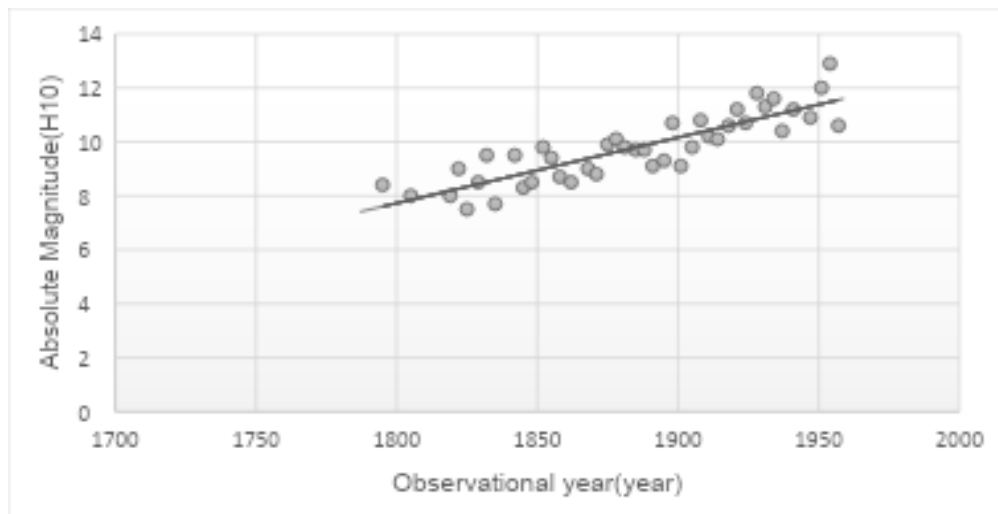


Fig.1: Absolute Magnitude Change Curve of Comet 2P/Encke

The variation of absolute magnitude of the comet in duration from AD 1786 to AD 1957 is presented in Fig 1 [11].

As we can see, the absolute magnitude of the Comet 2P/Encke, varied about $2.^m0$ - $2.^m5$ in duration AD 1786-AD 1954.

This means that a rate of variation of absolute magnitude is $1.^m18$ per a year. If we assume that this variation rate in present was the same in the long past, we obtain an incredible value of absolute magnitude that the absolute magnitude in AD 54 was as more luminous as $20.^m$. However, the variation rate of absolute magnitude cannot be constant, so can we obtain the conclusion that in the past, the Comet 2P/Encke would have been very bright.

The Comet 1P/Halley had had an absolute magnitude of $H_{10}=2.^m0$ in AD 760, whereas it diminished to $4.^m6$ in AD 1910, and the Comet 27P/Crommelin from $H_{10}=6.^m2$ in AD 1457 to $10.^m7$ in AD 1956. Such examples show that these comets had been very bright in BC 466 and BC 44 first observed, respectively.

Therefore, the Comet 2P/Encke also would had been very luminous in AD 54, and on account of this, this comet could have been observed in ancient Korea.

III. CONCLUSION

In this paper, we examined extensively observational data of comets observed in ancient and mediaeval Korea and quested the comets repeatedly observed after about 3.3 year. In this procedure, we found that the 32 observation cases are correspond to the Comet 2P/Encke.

From the curve of variation of absolute magnitude of the Comet 2P/Encke from AD 1786 to AD 1954, we could suppose that this comet would be very bright in ancient Korea before mediaeval epoch, and therefore was able to easily observe by naked eye.

After the Comet Halley was discovered in BC 466 and the comet of Crommelin in BC 44, the bright comet Encke would be also discovered in AD 54. Thus, we could elucidate that this comet probably, was one out of the comets which mankind had begun to observe first in the earliest time.

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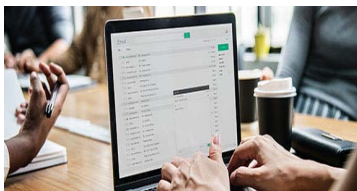
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13. Use good grammar: Always use good grammar and words that will have a positive impact on the evaluator; use of good vocabulary does not mean using tough words which the evaluator has to find in a dictionary. Do not fragment sentences. Eliminate one-word sentences. Do not ever use a big word when a smaller one would suffice.

Verbs have to be in agreement with their subjects. In a research paper, do not start sentences with conjunctions or finish them with prepositions. When writing formally, it is advisable to never split an infinitive because someone will (wrongly) complain. Avoid clichés like a disease. Always shun irritating alliteration. Use language which is simple and straightforward. Put together a neat summary.

14. Arrangement of information: Each section of the main body should start with an opening sentence, and there should be a changeover at the end of the section. Give only valid and powerful arguments for your topic. You may also maintain your arguments with records.

15. Never start at the last minute: Always allow enough time for research work. Leaving everything to the last minute will degrade your paper and spoil your work.

16. Multitasking in research is not good: Doing several things at the same time is a bad habit in the case of research activity. Research is an area where everything has a particular time slot. Divide your research work into parts, and do a particular part in a particular time slot.

17. Never copy others' work: Never copy others' work and give it your name because if the evaluator has seen it anywhere, you will be in trouble. Take proper rest and food: No matter how many hours you spend on your research activity, if you are not taking care of your health, then all your efforts will have been in vain. For quality research, take proper rest and food.

18. Go to seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.

Refresh your mind after intervals: Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.

19. Think technically: Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.



20. Adding unnecessary information: Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

21. Report concluded results: Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

22. Upon conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium through which your research is going to be in print for the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects of your research.

INFORMAL GUIDELINES OF RESEARCH PAPER WRITING

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form which is presented in the guidelines using the template.
- Please note the criteria peer reviewers will use for grading the final paper.

Final points:

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

The introduction: This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

The discussion section:

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

Writing a research paper is not an easy job, no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record-keeping are the only means to make straightforward progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear: Adhere to recommended page limits.



Mistakes to avoid:

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.
- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

Title page:

Choose a revealing title. It should be short and include the name(s) and address(es) of all authors. It should not have acronyms or abbreviations or exceed two printed lines.

Abstract: This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

An abstract is a brief, distinct paragraph summary of finished work or work in development. In a minute or less, a reviewer can be taught the foundation behind the study, common approaches to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study with the subsequent elements in any summary. Try to limit the initial two items to no more than one line each.

Reason for writing the article—theory, overall issue, purpose.

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

Approach:

- Single section and succinct.
- An outline of the job done is always written in past tense.
- Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

Introduction:

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.



The following approach can create a valuable beginning:

- Explain the value (significance) of the study.
- Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets the declared objectives.

Approach:

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

Procedures (methods and materials):

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

Materials may be reported in part of a section or else they may be recognized along with your measures.

Methods:

- Report the method and not the particulars of each process that engaged the same methodology.
- Describe the method entirely.
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures.
- Simplify—detail how procedures were completed, not how they were performed on a particular day.
- If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

Approach:

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

What to keep away from:

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings—save it for the argument.
- Leave out information that is immaterial to a third party.



Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part as entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.

Content:

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or manuscript.

What to stay away from:

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

Approach:

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

Figures and tables:

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

Discussion:

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."



Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

THE ADMINISTRATION RULES

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BY GLOBAL JOURNALS

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Topics	Grades		
	A-B	C-D	E-F
<i>Abstract</i>	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
<i>Introduction</i>	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
<i>Methods and Procedures</i>	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
<i>Result</i>	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
<i>Discussion</i>	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
<i>References</i>	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring



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