



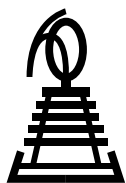
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in Ancient Egypt and Western Asia

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Editorial

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It is with great pleasure that we introduce the first issue of *Enki & Ptah. Journal of Technology and Trade in Ancient Egypt and Western Asia*, a new peer-reviewed scientific publication dedicated to the study of technology, scientific knowledge, crafts, exchange in the ancient societies of Egypt, Nubia, the Eastern Mediterranean and Western Asia. Ranging from prehistory to the Hellenistic and Roman periods, the journal offers an interdisciplinary platform for exploring the material foundations of ancient economies and the cultural dynamics that shaped them. *Enki & Ptah* was conceived with the ambition to bring together complementary perspectives from archaeology, history, and philology, and to foster a cross-regional and diachronic approach to the study of ancient technologies and exchange interactions. By placing Egypt, the Eastern Mediterranean and South-Western Asia within a shared analytical framework, the journal highlights the interconnected worlds of technological innovation, craft specialisation and long-distance trade, and the many ways in which these shaped social and economic structures over time. Rooted in the long-standing Italian tradition of Egyptology and Near Eastern studies, the journal aims to serve as an intellectual meeting ground for scholars

investigating the technological, economic and social dynamics of pre-modern cultures, while also fostering methodological innovation and new interpretative frameworks. Its scope embraces a broad thematic and chronological range, inviting contributions on raw-material procurement and processing, production and distribution systems, archaeometric and scientific analyses, as well as textual and iconographic sources on technology and know-how. Particular value is placed on studies that illuminate the transmission of technical knowledge across regions or periods, or that explore the relationship between innovation, environment, agency and local traditions. A defining feature of *Enki & Ptah* is its commitment to interdisciplinary dialogue. The journal encourages the integration of archaeological, scientific and textual evidence, offering a space in which methodological reflection and theoretical perspectives can inform new understandings of ancient technologies and economies. We especially welcome research that challenges disciplinary boundaries or proposes innovative approaches to the study of craft practices and exchange networks. Co-directed by its editors together with a dynamic board of early-career researchers from the University of Milan, *Enki & Ptah* adopts a double-blind peer-review

system and benefits from the guidance of an international scientific committee composed of leading specialists in Egyptology, Assyriology, and the history and archaeology of ancient Western Asia. The journal consists of a section of research articles and a section dedicated to reviews of recent volumes relevant to its areas of interest. Published by the Milano University Press in open access, with print-on-demand options, *Enki & Ptah* reflects the University of Milan's commitment to fostering high-quality, accessible and interdisciplinary research, according to the FAIR principles. This first issue opens with a substantial collaborative article by a team of scholars from the Centre of Excellence in Ancient Near Eastern Empires at the University of Helsinki. Their contribution offers a far-reaching comparative analysis of the relationship between kingship and economic structures in ancient Western Asia, a field of research that has recently experienced a notable revival, enriched by new methodological perspectives. The article presents a systematic diachronic comparison spanning more than a millennium, examining the economic foundations of kingship and, to a lesser extent, queenship, across seven major empires (Neo-Assyrian, Neo-Babylonian, Teispid-Achaemenid, Seleucid, Ptolemaic, Arsacid and Roman). Particular attention is given to the distinction between "state" and "royal" assets and expenditures, explored here to an unprecedented degree. Massimo Maiocchi's article addresses the methodological and historiographical challenges surrounding the study of the earliest writing systems of south-western Asia and northern Africa: proto-cuneiform, proto-hieroglyphic and proto-Elamite. A reassessment of the scholarly debate reveals persistent disciplinary biases and the modern prestige attributed to literacy, which have long

shaped narratives that overstate writing as the primary marker of civilisation. By exposing these ideological assumptions, the study advocates for a more balanced interpretive framework that situates the origins of writing within the broader cultural, technological and social dynamics of the late 4th millennium BCE. The contribution by Padovani and Zingarello examines the mechanisms of control and management of ceramic production during the late Early Bronze Age in northern Mesopotamia, adopting an explicitly archaeological perspective grounded in the analysis of manufacturing contexts, particularly in light of recent discoveries in Iraqi Kurdistan. Focusing on the site of Logardan, the authors present newly uncovered workshops equipped with large and technically sophisticated firing installations. Drawing on fresh spatial, architectural and technological data from ongoing excavations, the study reassesses long-standing assumptions about the political, technical and socio-economic dimensions of pottery manufacture under the first empires of the 3rd millennium BCE, highlighting an incipient trajectory towards proto-industrialisation. Ilaria Sieli's article investigates the relationships between Lower Nubia and Egypt through the analysis of three cemeteries belonging to different phases of the A-Horizon, the earliest cultural horizon of the region. By tracing changes in funerary customs and their implications for Nubian society, and by emphasising regional distinctions within Lower Nubia, the study highlights episodes of contact, tension and divergence with Egypt, as well as instances of creolisation that made Lower Nubia a key interface between distinct cultural spheres. The final contribution, by Ahmed Mansour, turns to the emerging field of ancient Egyptian metallurgy. Despite numerous scientific analyses on metal

composition and technology, our understanding of early manufacturing processes and working conditions remains fragmentary. By examining the written evidence that accompanies Old Kingdom metallurgical scenes, the article integrates textual and visual data to clarify technical procedures, operational stages and the demanding working environment of ancient metalworkers. Together, these sources offer a more accurate and coherent reconstruction of one of Egypt's most specialised industries.

As this inaugural issue brings together diverse perspectives on handicraft production, exchange, and economic systems across ancient societies, we invite our readers and contributors to join us in a shared space where new findings, approaches and ideas may converge, shedding fresh light on the complex interactions and cultural meanings that shaped the procurement, transformation and circulation of materials and products in ancient Egypt and Western Asia.



Trade Routes and Grave Goods: Pathways of Commercial Exchange and Cultural Hybridisation Between Early Egypt and Lower Nubia – A View from the Necropolises

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Abstract

The aim of this paper is to provide a comprehensive overview on the A-Horizon, the most ancient Lower Nubian culture, and on its relationship with the emerging Egyptian State, overcoming the long-standing colonial perspective and adopting the post-colonial approach currently applied in the MENA region. To better understand the different developmental trajectories between Egypt and Lower Nubia, it is necessary to review the geographical framework of the region, also considering paleoenvironmental research, focusing on the prehistoric premises of Nubian cultural facies. Then, a concise overview on the challenges scholars face in determining an absolute chronology for the transitional age between prehistory and protohistory is crucial to set the incipient statalisation in the Nile Valley against a solid background. Furthermore, the analysis of the A-Horizon culture must be conducted by highlighting the episodes of contact and divergence with the Egyptian world, addressing both instances of mutual hostility and elements of creolisation which made Lower Nubia a key interface between different cultural horizons. The paper focuses on three A-Horizon cemeteries, which share strong hybrid Egyptian-Nubian features: Cemetery 7 at Shellal, dating to Early A-Horizon, the Classical-terminal A-Horizon Cemetery 137 at Sayala and Cemetery L at Qustul, chronologically set within the full Terminal A-Horizon. The purpose is twofold: displaying the transformations in funerary customs (and, consequently, in Nubian society) through time, and highlighting regional differences between lower and upper Lower Nubia. This aims to encourage renewed research in an area currently submerged by Lake Nasser, hence no longer investigable through direct archaeological fieldwork.

Keywords: A-Horizon, Protodynastic, Trade, Hybridisation, Necropolis

1. Geography and paleoenvironment: from Pleistocene to the Neolithic human groups

Lower Nubia stretches from Aswan, on the First Cataract, down to Wadi Halfa and the Second Cataract, however sharp boundaries with Egypt and Upper Nubia are not clearly defined. Nowadays, the whole region politically belongs to the Egyptian State,

excluding the portion spanning between Addindan and Wadi Halfa, placed under the administration of the Sudanese Government (Emery 1948: 5; Arkell 1955: 1; Williams and Emberling 2020: 2-3). To frame the peopling process in the area, a paleoenvironmental background

must be provided: both Africa and Europe experienced climatic fluctuations throughout the Pleistocene (Said 1993: 45-46; Harrell 2020: 59). In Europe, this resulted in cycles of glacial and interglacial periods, which are more easily documented than climatic fluctuations in Africa, where dry and wet phases alternate. There is still not consensus on the duration of these phases, for which studies highlight two plausible scenarios: a predominance of dry climate marked by short wet periods especially along the Nile banks or, conversely, a generally more humid climate characterised by savannah landscapes (Adams 1977: 102-103). Despite challenges in identifying the chronological range of the interpluvial phases, however a correlation can be suggested between paleoclimatic variations in Europe and North Africa. The advance of glaciers in Europe likely increased the average humidity rate across the Mediterranean, leading to greater precipitation, while interglacial phases resulted in corresponding aridification in North Africa (Arkell 1955: 6). Furthermore, Sudan exhibits significant environmental variability, influenced by inconsistent rainfall and the continuous shifting of winds – dry, cold or warm depending on the season from the north, and generally humid from the south (Williams 2020: 64). This explains the stark contrast between the desert landscape of Lower Nubia and the growth of vegetation in Upper Nubia, impacting settlement types and subsistence strategies.

The Nile Valley and the surrounding deserts have been intensely populated since the prehistoric period, laying the groundwork for the development of society from Predynastic to Protodynastic and ultimately to the fully dynastic periods (Hendrickx and Huyge 2014; Hintze and Hintze 1968: 9-10; Valbelle 1990: 24-28). The earliest artistic evidence dates to the Neolithic, with multiple attestations both in the Sahara and in the fluvial valley. The oldest examples of petroglyphs,¹ belonging to the Abkan and Khartoum Neolithic cultural *facies*, show clear similarities to the Magdalenian counterparts in France and Spain, suggesting a common origin or derivation possibly mediated by the Strait of Gibraltar (Winkler 1938; Dunbar 1941; Curto 1965; Basch and Gorbea 1968; Smith 1972; Adams 1977: 115; Davis 1984; Curto et al. 1987; Manzo 2007: 39-40; Piquette et al. 2017). However, unlike the Saharan rock carvings, the depictions in the Nile Valley between the First and Second Cataract tend to be smaller in scale and more stylised (Adams 1977: 116). Concerning the subjects, the depiction of wild animals, giraffes and elephants (Gaballa 2006: 23) attests a faunal variety typical of the Neolithic savannah landscape, soon to disappear due to the desertification of the region.² Remnants of the greater faunal diversity, however, persist in historical periods, as it is clearly shown by the conservative nomenclature of Upper Egyptian *nomoi*: for example, the *nomos* of the Elephant, or the very name of Elephantine Island,³ plus, the

¹ Such petroglyphs, made by hammering and with outlined or painted figures, of both symbolic and narrative meaning, remained in use for the entire Egyptian history.

² Yet, it is important to consider that not all the petroglyphs recorded in the region belong to pre- and protohistoric times, as well as the fact that the depiction of animals may convey ideological meanings rather than depicting the real world. Nonetheless, concerning the neolithic rock carvings, the author believes it possible that, in this specific case, the animal subjects may reprise the contemporary faunal variety, *per se* or more likely embedded with symbolic (or proto-symbolic) significance.

³ The latter being more problematic, since its Egyptian name (*3bu*) both stands for “elephant” and “ivory”, hence it may as well metonymically refer to the ivory trade in the region.

zoological nomenclature itself is a legacy of a tribal past, characterised by the worship of totem animals (Anselin 2004). By the end of the Pleistocene, the rapid aridification of the Sahara entailed a significant depopulation, resulting in migrations toward tropical regions, coastal areas and along the Nile Valley. In this context the agricultural revolution, the domestication of new animal and vegetal species, pottery production and further development of rock art occurred (Donadoni Roveri and Tiradritti 1998: 19; Lamb et al. 2007; Marshall et al. 2011; Williams 2020: 67). To understand the environmental framework for this massive population shifts, sedimentological and chronological research projects were initiated in the 1980s to clarify the river's behaviour during the Late Pleistocene. These studies reconstructed temperature records and rainfall patterns in the Ethiopian highlands (White Nile, Blue Nile, Atbara) and lake basins. Indeed, the river flow directly depends on precipitation on the Ethiopian plateau, reflecting climatic variations beyond Lower Nubia and therefore unpredictable for the Neolithic human groups (Williams et al. 1978, 2015; Butzer 1980; Donadoni Roveri and Tiradritti 1998: 19; Castiglioni and Castiglioni 2006: 194; Lamb et al. 2007; Marshall et al. 2011; Williams and Jacobsen 2011; Williams 2020: 68-69). Concurrently, investigations into the Nile's depositional stratigraphy identified a chronological limit of 9500 BP, marking a transition from sedimentation to progressive erosion of the riverbanks (Castiglioni and Castiglioni 2006: 194; Williams 2020: 69-70). During the mid-Holocene, improved environmental conditions due to increased water resources⁴ prompted the incipient sedentarisation of human groups, alongside the development of cattle pastoralism

(Williams 2020: 64-71). The domestication of plants and animals, begun at first in seasonal settlements in the Western Desert and especially in the Wadi el-Obeyid, later spread to the Nile Valley. This occurred alongside a new arid phase of the Holocene, which triggered another migratory wave toward areas close to water sources (Leclant 1990; Donadoni Roveri and Tiradritti 1998; Wilkinson 1999: 45-46; Lamb et al. 2007; Largacha 2008; Marshall et al. 2011; Nelson and Khalifa 2011; Raue 2019; Williams 2020: 64). Nonetheless, climatic change cannot be seen as the only factor of sedentarisation, neither the latter must be conceived as solely related to settlement patterns: the development of pastoral strategies during the 5th millennium, on a south-north axis which involved both the Sudanese and Egyptian regions of the Nile Valley, led to peculiar forms of territoriality, which were expressed not by proto-urban sedentarisation phenomena, but rather through funerary and cultural practices. In this framework, evidence of attachment between the human groups and their living place lays in the presence of burial grounds, whose repeated use became a major feature in the archaeological record of the region. Among the other features, the increase of personal ornamentation in the funerary equipment and the presence of animal remains in burials, probably due to ceremonial feasting (related to the prominence of domestic fauna in the pastoral society) stand out (Wengrow et al. 2014: 96-104; Manzo 2020: 109-111). Even since prehistoric times, the extreme variety of the Nile Valley's landscape is evident and influenced both settlement typologies and means of subsistence (Manzo 2007). In Egypt the Nile flows through fertile alluvial plains and limestone plateaux. Otherwise, in Lower Nubia the

⁴ The so-called "wet phase".

riverbanks are flanked by rugged sandstone (also common to Upper Egypt) and granite cliffs,⁵ rarely interrupted by narrow strips of cultivated land (Manzo 2020: 106). Furthermore, the scarcity of docks enables navigation in the Cataract area. The diverse landscape, combined with the difficulties of navigating the Cataracts, underpins the ambivalent nature of the Nile: both communication route and geographical boundary amongst different cultural *facies* (Emery 1948; Fahmy 2004; Castiglioni and Castiglioni 2006; Gaballa 2006).⁶ The latter ones, however, are not to be conceived as fixed entities, each provided with its own set of features: they were rather different expressions, on a local level, of a shared sociocultural foundation, which eventually developed following varied paths (Wengrow et al. 2014). This feature contributes to the radical heterogeneity of populations during the Neolithic. In subsequent historical phases, a trend toward increasing homogenisation and centralisation emerges, with early evidence dating to the Pastoral Neolithic. The gradual diminishing of cultural differences coincides with the rise of different typologies of social hierarchies, particularly evident in funerary rituals: the widespread use of valuable grave goods and the appearance of the first mace heads as symbols of individual power mark the rising of an élite amongst the early agropastoral communities, around 5000 BCE (Trigger 1965; Wenke 1989; Haynes 1992: 17; Wetterstrom 1993; Donadoni Roveri and Tiradritti 1998: 23-31; Castiglioni and Castiglioni 2006: 194-197; Wengrow 2006; Manzo 2007: 27-31). Beginning with a shared settlement pattern characterised by scattered,

autonomous villages without hierarchical ties, the trajectories of social development in Egypt and Lower Nubia began to diverge, each one emphasising different specific traits which originally belonged to a shared cultural milieu, thus repercurring on the sociopolitical relations between the two regions over the following millennia (Trigger 1965; Bard and Carneiro 1989; Gatto 2011).

2. Studies on chronology and the development of statal entities

The reconstruction of Egypt's earliest history, while rooted in the late XIX century with the excavations led by Petrie at Naqada and Ballas in 1895-1896 (Petrie 1896, 1920 and 1939), has long been affected by a Eurocentric perspective (Manzo 2020; Williams and Emberling 2020). This approach often marginalised prehistoric African cultures. Initially, Petrie himself attributed the predynastic material culture to a so-called "New Race" of invaders, before revising his stance based on comparisons with similar artifacts discovered by De Morgan at Naqada (Petrie 1920; 1939). In the 1910s, Reisner and Firth ascribed Nubian civilisation to an allochthonous origin, but it was only with the next generation of scholars, notably Sandford and Arkell, that continuity between prehistoric African communities and the historical populations of the Nile Valley was recognised. Moreover, paleoenvironmental and protohistoric studies gained further momentum in the post-World War II period, particularly within the UNESCO campaign in salvage of Nubian monuments (Adams 1977: 101; O'Connor 1987; Manzo 2020: 101-102; Näser 2020: 36-38).

⁵ Sandstone formed during the Cretaceous and varies in colour: black, dark brown, yellow, grey and white. Granite and gneiss formed during the Precambrian

⁶ The interruption of fluvial navigation compelled by the presence of the First Cataract might be one of the features which prevented Lower Nubia from being incorporated in the Egyptian State formation (Manzo 2020: 106-107).

The first attempts to date predynastic cultures were based on typological methods, leading to the development of a relative chronology. Petrie's sequence dating, applied to the progressive standardisation of pottery, allowed him to identify three phases, corresponding to distinct cultural *facies*: Amratian (from the site of el-Amrah), Gerzean (from the village of el-Gerza) and Semainian (Willoughby and Stanton 1988: 12-15; Mortensen 1991: 13-14). Changes in material culture were attributed to systematic waves of invasions by foreign populations. In the post-World War I period, archaeological investigations by Brunton and Caton Thompson at the sites of Qau and Badari enriched and refined Petrie's periodisation, leading to the identification of the Tasian and Badarian cultures (Brunton 1927; 1928; 1930). Other pioneers in Protodynastic studies include Quibell and Green, Amélineau and, later, Leclant and Emery (Hendrickx 1994; 1995). Concurrently, analysis conducted in the necropolis of Armant led Kaiser to propose an internal subdivision of Petrie's sequences, breaking each into different sub-phases (*Stufen*), designated by letters of the alphabet (a, b, c) (Kaiser 1957; Hayes 1964: 147-148; Mortensen 1991: 15). The connection of relative periodisation to absolute chronological terms was achieved by Hassan in the 1970s, through radiocarbon dating (Hassan 1988: 140-142). However, these analyses are partial, as most pre- and Protodynastic sites have not yielded sufficient material in terms of both quantity and distribution. Nonetheless, the contributions from C14 dating have established a valid absolute chronology still in use nowadays, complemented by specific calibrations at the local level. The results of Hassan's dating identify the following periods (Midant-Reynes 2000):

- Badarian (4500-3900/3800 BCE)
- Amratian or Naqada Ia-c (3900/3800-3700/3500 BCE)

- Gerzean or Naqada IIa-d (3700/3500-3300/3200 BCE)
- Protodynastic or Naqada IIIa-c (3300/3200-3050 BCE)
- First Dynasty (3050 BCE onwards)

During the Naqada IIIc phase the unification of Egypt occurred. Its foundations can be traced back to the Naqada IIc phase, whose burials display clear signs of social hierarchisation, evidenced by the presence of luxury grave goods such as Afghan lapis lazuli and gold, traditionally believed to be supplied from Wadi Allaqi (Bard 2000; Emery 1948), however more recent studies suggest that the mines of the Eastern Desert were principally exploited during the most ancient phases (Klemm and Klemm 2013: 1-6). The emergence of the Egyptian State is currently the subject of a lively academic debate aimed at clarifying its internal and external causes, both in terms of social innovations and the relationship with surrounding political entities (Massoulard 1949; Emery 1961; 1965; Moorey 1970; Hoffman 1979; Trigger 1983; 1993; Needler et al. 1984; Bard 1987; Hassan 1988; Wenke 1989; Mortensen 1991; Wengrow 2006; Teeter 2011; Hendrickx 2014; Williams 2016; Barich 2020; Cialowicz 2020; Hendrickx and Förster 2020; Jucha 2020; Köhler 2020; Manzo 2020: 105-111; Maczynska 2020). In the Late Predynastic, Egypt served as the hub of a complex system of exchanges involving material goods, technologies, and ideological aspects (Guyot 2008: 707-708). From the Saharan world came herding techniques and styles of rock art. The Levant, besides being a key region for developing mercantile enclaves, provided new domesticated plants and animal species originally wild in Egypt, such as goats, barley and wheat, essential for the growth of an agropastoral economy. Nubia contributed a continuous supply of precious raw materials and luxury goods, while Mesopotamia

influenced the use of lapis lazuli, cylindrical seals, and the iconography of power, particularly represented by the “lord of animals” motif (Trigger 1983; 1993; Donadoni Roveri and Tiradritti 1998: 31). During the transitional phase between the predynastic and the Protodynastic, it is challenging to pinpoint the (often blurred) boundaries between the social structures of chiefdoms⁷ and the rise of proto-states, both regarding economic causes and political ideology. However, this preliminary operation is essential for understanding the relationships between the Egyptian State and its Nubian counterpart. We will take for granted Childe’s perspective on urbanisation, as well as Wittfogel’s and Carneiro’s monocausal and Renfrew’s multifactorial hypotheses on social development (Childe 1950; Wittfogel 1957; Renfrew 1972; Carneiro 1978; 2004), to focus directly on the definition of proto-*nòmos* proposed by Flannery: the emergence of a chiefdom depends on the ability of leaders from larger communities to disrupt the independence of smaller social groups, with military conflict acting as a development catalyst (Flannery 1997).⁸ From this premise arises the formation of complex chiefdoms, or federations of villages integrating populations on a regional scale. This phenomenon occurs in Egypt during the Naqada I period, marked by the rise of cantonal communities centred around the settlements of This/Abydos, Abadiya, Naqada, Gebelein and Hierakonpolis, with smaller centres like el-Kab, Edfu and Elephantine also emerging. In the subsequent Naqada

IIc phase, these centres further join into a politically asymmetrical confederation, whose leader promote military expansionism both towards the Delta region and the south.⁹ The outcome is the political unification of Egypt and the subsequent centralisation of power (Trigger 1983; Wenke 1989; Bard 1994: 281; Andelković 2004: 535-537; Wengrow 2006). On the other side, in Lower Nubia the Neolithic innovations are the framework of the cultural turmoil of the 4th millennium, which marks the appearance of new social groups. Their material culture includes new pottery typologies (black-topped ware), funerary offerings and permanent domestic architecture in perishable materials (Curto et al. 1985; Baba and Saito 2004; Gaballa 2006). The Nubian population clusters are designed according to the nomenclature proposed by Reisner, who identified four population waves in Lower Nubia based on material culture and funerary practices, labelled Groups A, B, C, and X, spanning from the predynastic period to the post-Meroitic era (Reisner 1910; Haynes 1992; Gratien and Le Saout 1994: 17; Midant-Reynes 2003; Gaballa 2006: 23-24; Gatto 2006a: 61; Honegger 2010: 78; Manzo 2020: 103; Näser 2020: 34). Further archaeological research allowed a revision of Reisner’s classification, by re-attributing the B-Group evidences to the Early and Terminal A-Group, and by focusing on the inner heterogeneity of each cultural *facies* (Gratien and Le Saout 1994: 30).¹⁰ Gatto, for example, specifically suggested the new definition of “A-Groups” (Gatto

⁷ For the definition, structure and development of the chiefdom, see Carneiro 1981 and Earle (ed.) 1991, and related bibliography.

⁸ On the role of violence and warfare in social development in Egypt, further information and useful interpretations can be found in Andelković 2004 and in Hendrickx and Förster 2020 with related bibliography.

⁹ On the key role played by contacts with the Levantine region and the exclusion of Nubia from the aggregative process of the Egyptian State, see Manzo 2020: 105-109 and related bibliography. On the problematisation of the Naqada expansion, see Maczynska 2020, Jucha 2020 and related bibliography.

¹⁰ H.S. Smith correctly assigns some of the B-Group tombs to the Early A-Group (Gatto 2006a: 62).

1995: 101; Gatto and Tiraterra 1996; Gatto 2000: 107), to emphasise the multiple trajectories within the same population cluster: in northern Lower Nubia agriculture and trade played a key role, whilst in southern Lower Nubia subsistence mainly depended on animal breeding, and the local communities reached a high degree of social differentiation, as the elite cemeteries of Sayala and Qustul clearly display (Gatto 1995: 100). Later, Gatto reprised Adams' "A-Horizon", a more fluid definition, which could be easily applied also to the other Reisner's Groups (B, C, X).¹¹ the latter designation will be adopted in this paper, since in the writer's opinion it best reflects the hybrid nature of Lower Nubia's population, while Reisner's Groups seem to designate fixed entities with established features. The A-Horizon population, whose chronological definition still bears issues (see Tab. 1),¹² geographically spanned with blurred boundaries between the First Cataract and the Batn el-Haggat (Emery 1965: 24; Curto et al. 1985: 26; Gatto 1995: 99; 2006a: 62). Currently 193 sites have been identified: 87 on the west bank of the Nile, 99 on the east bank and 7 on the islands of the First and Second Cataracts, comprising 126 cemeteries and 67 settlements (Gatto 2006a: 62).

This population cluster traditionally represents an agro-pastoral transitional element between hunter-gatherer Mesolithic groups, evidenced by sporadic burials between Shellal and Dhakka, and the subsequent mainly agricultural economy pertaining to the C-Horizon, which developed since the VI Dynasty, peaking during the XII Dynasty (Emery 1948; 1965).¹³ Alongside the cultivation of wheat, barley and legumes (peas and beans), hunting and fishing remained predominant, supplemented by early goat domestication (O'Connor 1993: 12; Gohary 1998: 6; Gaballa 2006: 23; Gatto 2006a: 71). Territorial division among semi-nomadic tribes is a prehistoric feature fully kept by the population, whose economic development relied more on pastoralism, craftsmanship and trade, rather than on primary production. The main activities included stone, copper and leather manufacturing, as well as basketry and pottery production. Additionally, a specialised warrior class emerged, particularly skilled archers, which in historical times earned Lower Nubia the name of *Ta-Sety* ("Land of the Bow") from the neighbouring Egyptians¹⁴ (Curto et al. 1985: 67; O'Connor 1993: 12-13; Gatto 2006a: 71).

¹¹ The revision of the A-Horizon's chronology owes a lot to the Scandinavian Joint Expedition (Nordström 1972 and 2006), and to the Oriental Institute of Chicago mission, which both operated amidst the UNESCO campaign, as well as to the concepts expressed in Trigger 1965 and Adams 1977 (Gatto 1995: 97; 2006a: 62).

¹² The relative and absolute chronologies are based on a pottery seriation, sticking to the model offered by pre- and Protodynastic Egyptian sequence dating. The only C14 dating samples come from three sites: Afyeh, Debeira and Halfa Dagheim, from which it is possible to locate the beginning of A-Horizon culture by the end of the 5th millennium BCE (Gatto 1995: 99-100; 2006a: 66; Vercoutter 1992: 138-140). Nordström (1972; 2006) identified three phases pertaining to the A-Horizon: Early (corresponding to Naqada Ic-IId), Classical (Early Naqada III), Terminal (Late Naqada III/I Dynasty) (Flores 2004: 741; Gatto 2000: 105; Midant-Reynes 1992: 206-208; Trigger 1976: 32-39).

¹³ The general lack of adequate archaeozoological archaeobotanical analyses and the partial and discontinuous nature of data, however, makes it difficult to properly evaluate the exact weight of each economic activity in both the aforementioned cultural *facies*. On the prominence of the pastoral feature in social development in the Nile Valley since the 5th millennium BCE, see Wengrow et al. 2014.

¹⁴ However, in more recent years, the geographical framework of the populations named *Ta-Sety*, *Nehesy*, *Medjay* and *Maga*, traditionally labelled as Nubians, has been questioned. The toponym *Ta-Sety* itself originally referred to the First Nome of Upper Egypt, and it included Nubia only since the Middle Kingdom. For further information, see Michaux-Colombot 2014 and related bibliography.

Egyptian Chronology	A-Horizon Chronology
Naqada Ia-c (3900-3700 BCE)	Early A- Horizon (3750-3200 BCE)
Naqada IIa-d (3700-3200 BCE)	Classical A-Horizon (3200-3050 BCE)
Naqada IIIa-b (3200-3050 BCE)	
Naqada IIIc/I Dynasty (3050-2900 BCE)	Terminal A-Horizon (3050-2900 BCE)

Tab. 1. The synchronisation between Egyptian pre-/Protodynastic and Nubian A-Horizon chronologies. The Egyptian chronology is reprised from Piacentini and Pozzi 2023; the Nubian chronology is based on Nordström 1972; 2006.

In predynastic Egypt, abundant cereal production allowed for rapid artisanal specialisation and the development of a class of artists and bureaucrats (Kemp 1983; Wenke 1989; Wetterstrom 1993; Allen 1997; Wengrow 2006). On the other hand, Nubian social development resulted from gradual adaptation to resources and an environmental backdrop similar to oasis models, in which agricultural innovation never became a revolutionary factor. Indeed, the sedentarisation of A-Horizon did not stem from a shift in food production methods, as agriculture and centralised control on animal breeding on a wide scale (beyond pastoralism) remained collateral factors in its economic (hence social) model. Due to the climatic generosity provided by the persistence of more humid conditions comparing to Egypt, the A-Horizon population did not feel the urge to adapt to a fully-agricultural economic model; instead, the pre-historic features of a

hunting-fishing society were able to survive (Adams 1977: 117; Bard 2000: 62-65; Gatto 2006a: 71; 2020; Manzo 2020: 108-109). Furthermore, in Lower Nubia the cultivable land consists of a very narrow strip wedged by rock gorges, therefore the region lacks the agricultural potential which characterised Egypt. The absence of cereal surplus, essential for sustaining specialised urban classes, hindered early State formation conceived as urban development, and prevented the transition beyond cantonal state chiefdoms bearing nomadic features.¹⁵ Trigger estimates an overall population of 4500 units for the entire A-Horizon age, with pastoralism emerging as the primary form of subsistence for lower classes. These conditions allowed the development of a certain degree of social hierarchisation and a wealth trade-based economy, yet they were insufficient for the emergence of a fully-fledged urban state (Bard and Carneiro 1989: 21; Bard 2000: 67; Manzo 2020: 108).¹⁶

¹⁵ Here the author employs the hard-to-die terminology related to the traditional model (i.e. “proto-state”, “chiefdom” etc.), which considers urbanism and State formation as (at least partially) intertwined. However, the relationship between urbanism and State formation is still currently debated, with different models having been proposed in more recent years. In this sense, the A-Horizon society bears typical pastoral features which can be related to nomadic states, retained both in Africa and in Asia during the following ages. Nonetheless, the aforementioned lack of complete data, also biased by its main provenance from necropolises rather than settlements, makes it difficult to clearly distinguish between chiefdom-like features and those proper of nomadic states. However, the absence of the urban model in A-Horizon society and the persistence of nomadic traits are a typical feature diverging from the Egyptian State formation and attest the different development trajectories between the two social entities. On this topic, see Manzo 2020, and related bibliography.

¹⁶ Gatto offers a different perspective, focusing on the evidence of a transition from local chiefdom to regional or cantonal chiefdom with proto-statal features (1995: 101).

These statements have been partially revised following the publication of Cemetery L at Qustul, which attests a high level of social differentiation during Classical and Terminal A-Horizon,¹⁷ consistent with a proto-State organisation centred on Qustul in the Second Cataract area.¹⁸ Meanwhile, in the Dhakka plain, the centres of Sayala and Naga Wadi appear as hubs of a cantonal scale chiefdom (O'Connor 1993: 10; Gatto 2006a: 72). However, the coexistence of different subsistence activities (rather than the prominence of the agricultural-urban model), the persistence of social mobility and intracultural variability, the peculiar settlement pattern are not to be interpreted as features of a "less complex" or "less developed" society: a nomadic or pastoral State is a complex political entity, which displays a different complexity from the one typical of societies which follow an urban polity model (on this topic, see Wengrow et al. 2014, Gatto 2020, and Manzo 2020). Finally, it is crucial not to approach the study of A-Horizon solely through its relations with Egypt, but rather considering the broader network of long-distance contacts which engaged the Eastern and Western Deserts as well as the Upper Nubian world.¹⁹

3. Protodynastic Egypt and A-Horizon: from the frontier to the interface

Over the millennia, the relationship between Egypt and Nubia mostly appears as a succession of expansionist and

retreating episodes, alternatively led by both populations involved, for the control of trade routes and cultivable land (Emery 1965: 15; Midant-Reynes 2003: 301-302). The earliest evidence of interregional contacts traces back to the Neolithic: Egyptian manufacture is attested in numerous Nubian burials, whilst during the Protodynastic a network of commercial routes developed, aimed at the supply of raw materials, mainly from the diorite quarries of Toshka and the gold mines of Wadi Allaqi, where Gerzean necropolises have been identified (Curto et al. 1985: 25-29; O'Connor 1993: 11; Gohary 1998: 6). Furthermore, archaeological research has revealed a system of resting points on the route towards Upper Egypt, mainly located near water wells or *gueltas*: these were temporary storerooms employed by Nubian merchants to stock pottery (Castiglioni and Castiglioni 2006: 198). The rising predynastic Egyptian élite employed the importation of luxury goods from distant countries as part of a strategy of political ascent, as the coexistence of precious items and markers of social hierarchisation in the main cemeteries of Upper Egypt attests (Guyot 2008: 717). Similarly, A-Horizon chiefs, whose prominent graves have been found in Cemetery L of Qustul (the so-called "royal burials") and in Cemetery 137 of Sayala, consolidated their power by holding a major role as commercial intermediaries between the upper Nile Valley and Sudanese Nubia (O'Connor 1993: 2-3; Donadoni Roveri and Tiradritti 1998: 33).

¹⁷ The same is attested for gender roles: Qustul tombs show women played a key role in society and, subsequently, in the ideological and religious sphere. Children too were held in consideration, as it clearly appears from the richness of grave goods in infant burials (Gatto 2006a: 72).

¹⁸ On the problematisation concerning the hierarchic social organisation at Qustul, see Manzo (2020: 109-11) and related bibliography.

¹⁹ S.R. Rampersad's exhaustive PhD thesis is entirely focused on this topic; hence reference should be made to Rampersad 1999 and the subsequent article Rampersad 2000. Also, see Gatto 2011 and related bibliography. Finally, the anthropological debate would benefit from further investigation on social organisation in the Middle Nile and, especially, in the Eastern and Western Deserts, which would provide a new dataset on the paths to social complexity (Manzo 2020: 110-111).

In exchange for incense, ointments, exotic animal skins, ebony, ivory and gold,²⁰ the A-Horizon traders obtained from the Egyptian élite cereals, beer and wine, oil, cheese, stone vessels and hammered copper artifacts (O'Connor 1993: 14-15; Gatto 2006a: 71). The composition of funerary equipment clearly shows the commercial nature of these contacts: Cemetery L attests a wide range of imported jars, seals, and clay tokens, which are markers of mercantile activity, as well as fine pottery and lithic vessels, clay figurines, lapis lazuli, ornaments and mirrors, cosmetic palettes similar to the more famous Protodynastic Egyptian samples, mace heads and spearheads, sceptres and incense burners with royal iconographic motifs (Haynes 1992: 25; Castiglioni and Castiglioni 2006: 198; Gaballa 2006: 23; Gatto 2006a: 69). Furthermore, in A-Horizon settlements between Kubbaniya and Faras numerous Naqada goods have been recovered: mostly wine jars, wavy-handled jars, copper tools and small *faïence* objects. Likewise, the typical Nubian, black-topped ware is attested in multiple Upper Egyptian sites (Bard 1994: 281; Gatto 2000: 107; Gaballa 2006: 23). The similarity between Early A-Horizon and Naqada graves²¹ has fuelled a debate on the ethnicity of Egyptian and Nubian populations: Trigger argues for the

autochthony of A-Horizon, while Kaiser emphasises the commercial and colonial relations between the involved regions. Finally, Williams ascribes the unification of Egypt to the Qustul rulers, thus tracing a distinctly African origin in the Pharaonic civilisation (Williams 1978; 1986b; 1987a). However, the massive presence of Naqada material culture devoid of Nubian features in the Delta region dismisses the latter hypothesis (Adams 1985; Bard 1994: 281; 2000: 67; Gatto 1995: 100). In the aftermath of the Egyptian unification, the pharaohs immediately adopted aggressive policies towards Lower Nubia, to replace the local chiefs in the monopoly of trade routes to Central Africa (Curto et al. 1985: 25; Bard 2000: 77; Castiglioni and Castiglioni 2006: 199), by the foundation of both sanctuaries at the norther border, and military outposts in the region, especially at the northern and southern borders. This proves the case of the Protodynastic temple of Satet at Elephantine²² (Emery 1965: 112-113; Dreyer 1986; Seidlmayer 1996: 111-115; Wilkinson 1999: 18; Bard 2000: 83; Midant-Reynes 2003: 262-264; Manzo 2007: 54; Bussmann 2011: 748-750; Gatto 2016: 238) and the Buhen fortress, the oldest known Egyptian outpost associated with the exploitation of copper deposits (Emery 1965: 112-113; Curto et al. 1985: 25-59; Bard 2000: 77).

²⁰The toponym Nubia traditionally is considered to refer to the richness of gold mines: in fact, *nbw* means gold in Ancient Egyptian (in Coptic: *noub*) (Capriotti Vittozzi 2021: 13). However, based on linguistic studies, Claude Rilly elaborated a more convincing etymology for the toponym and for the population *Noba* itself: the root *nob-* derives from the proto-nubian **nogu*, attested in modern forms (as well as in Meroitic) with the meaning of "slave". Its etymology may derive from the root **log*, i.e. "man of the land", derogative name for the agricultural tribes, considered as potential slaves by pastoralists populations. For further information, see Rilly (2008: 217-219).

²¹These are oval or rectangular pits with rounded corners, sometimes flanked by a niche, without a superstructure. Inside, the bodies were usually buried in foetal position on the left side, the head pointing towards south and facing west. Funerary equipment is standardised, and it includes carnelian and shell jewellery, pottery, an alabaster or calcite palette and a flint dagger (Emery 1948: 18; 1965: 125; Gatto 2006a: 68-69; Gatto 2006b: 225-226; Haynes 1992: 40; Musée des Beaux-Arts 1988: 24-25).

²²For information about the fortified urban centre, see GIA (1998: 9-10), Hendrickx (2014: 272), Wilkinson (1999: 23), Ziermann (2002) and related bibliography. For an interesting analysis on the organisation of workforce in Egypt, which takes the I Dynasty fortress of Elephantine as a case study, see Ormeling 2016 and related bibliography.

The First Dynasty rulers commemorated their military victories against the Nubians on graffiti and ivory plaquettes: namely, Aha led an expedition in the region, celebrated on a plaque found in Abydos (Emery 1965: 125; Curto et al. 1985: 25; Hatier et Musées de Marseille 1990: 79; Bard 2000: 77). A seal impression dating to his reign was found the Cemetery B of Toshka West by the joint Pennsylvania-Yale Expedition directed by Simpson in the 1960s (Simpson 1962: 39; Emery 1965: 100; Valbelle 1990: 61; Gatto 1995: 97). Aha's successor, Djer, commemorated a military victory against the Nubians in a graffito from Gebel Sheikh Suleiman: it shows a typical Protodynastic Egyptian ship, from whose prow hangs the body of an enemy. Another prisoner is depicted with his hands tied by the typical double-curved Nubian bow. Finally, below the ship there are other bodies, whilst on the left side the symbols of defeated villages appear (Arkell 1955: 39; Emery 1965: 125; Needler 1967: 87; Hintze and Hintze 1968: 11; Trigger 1976: 40-41; Curto et al. 1985: 25; Hatier et Musées de Marseille 1990: 79; Bard 2000: 77; Gaballa 2006: 24; Manzo 2007: 54).²³ Another petroglyph from the same place documents an earlier expedition, probably led by the Scorpion King: it depicts a prisoner with his hands tied behind his back with a rope, held tight by scorpion's claws. Another figure brandishes a weapon, while the third one holds a bow (Wilkinson 1999: 178-179). In the Second Dynasty, Khasekhemuy led a new military campaign towards the South, as it is attested by

an inscribed lithic fragment from Hierakonpolis, on which the king is depicted subduing some Nubian warriors (Arkell 1955: 40; Curto et al. 1985: 25). Echoes of the early war actions by Egyptian rulers appear under a symbolic guise in the mythological tradition: a Ptolemaic inscription from Edfu mentions the multiple battles fought by Horus in Nubia (Blackman and Fairman 1944: 12-13), where the god has also been worshipped since the most remote times. In the following ages, the rivalry between Egypt and its southern neighbour consolidated. Meanwhile, the diverse Nubian human groups coalesced in the kingdom of Kush,²⁴ which successively developed around the long-lived centre of Kerma (whose first archaeological evidence traces back to 2450 BCE), Napata (since 730 BCE) and Meroe (580 BCE onwards). However, the connection between the two regions transcends conflict, especially in the area of the First Cataract, where cooperation and cultural unity prevailed over differences. For example, Nubia was the cradle of the annual Nile flood, the cornerstone of Egypt's economic, ritual and administrative system; the mythological tradition sets Osiris' sepulchre on the island of Bigeh, a sacred place for both Egyptians and Nubians; on the nearby island of Philae, the great temple of Isis and the smaller temples devoted to Nubian deities coexisted (Capriotti Vittozzi 2021: 13-14). The Egyptian and the Nubian clergy shared places and temples, the cult itself bore hybrid features, as well as the prerogatives of some deities. For example, the goddess Anuket, particularly worshipped in Sehel,

²³ For a revision of the petroglyph, see Somaglino and Tallet (2015) and related bibliography.

²⁴ The kingdom of Kush developed following a different trajectory comparing to pharaonic Egypt: it embedded multiple cultural groups with different degrees of autonomy, especially the peripheral regions and/or populations, which followed local trajectories: Kush was the core of a diplomatic network involving Punt, Lower Nubia, Upper Nubia, the Medjay and the oases. For further information, see Emberling (2014) and related bibliography. The model persisted also during the Napatan age, when there was a decentralised State control over the peripheries, as well as during the Meroitic age. For the latter, see Edwards (1996).

was part of the Egyptian Cataract triad with Satet and Khnum. However, during the millennia, she developed new features and was conceived as a Nubian goddess, rather than Egyptian. Nonetheless, her cult involved both populations. Philae itself was a realm of peace, where the Nubians could pray their own deities alongside the Egyptians. The same could be applied to the island of Bigeh. Apart the general political trend, a border can be both an area of conflict and reciprocal tolerance. The complex relationship between the two neighbouring lands in the disputed Lower Nubia region has traditionally been interpreted in light of the definition of frontier, borrowed from “colonial” archaeology, which defined a clear border between two areas both characterised by unique cultural markers, where the relations amongst different *facies* followed the core-periphery model: colonising people were conceived as innovators, apportioning technological, scientific and cultural progress, whilst the autochthonous substratum was seen as passive.²⁵ Given the most recent discoveries, nowadays it is more appropriate and consistent to overcome the colonialist approach by recognising the geographical boundaries between two regions as an interface area: a fluid, hybrid context where new cultural constructs develop under continuous and ever-changing phenomena of syncretism and creolisation (Williams and Emberling 2020). As it will be explained in the following sections, the first chiefs of Lower Nubia buried in the cemeteries of Sayala and Qustul adopt and re-adapt the Egyptian royal iconography, Shellal cemetery attests hybrid

burials in the Protodynastic. During the Old Kingdom, the First Cataract was the ultimate outpost which led Egyptian merchants towards the quarries of the desert and it equally hosted small Nubian commercial hubs. The Middle Kingdom fortress of Mirgissa, on the Second Cataract, housed a small Kerma culture necropolis. During the New Kingdom, Nubian funerary practices (probably Medjay) are attested in the First Nome of Upper Egypt and up to the Hierakonpolis region. Otherwise, the Nubian pharaohs of the Twenty-fifth Dynasty build pyramids in the Napata region, re-arranging the shape in the thinner way, according to their own sensibility and building techniques (Ciampini 2021: 29-31; Yellin 2020). During the Ptolemaic-Roman age, Elephantine was the perfect example of a melting pot *ante litteram*, where Egyptian, Nubian, Hebrew and Greek communities shared a living place, between conflict episodes and collaboration, sometimes ending up in mixed marriages. Also, the post-Meroitic population belonging to the X-Horizon adopts hybrid funerary practices, which involve the typically Nubian tradition of the horse burial, alongside the employment of Egyptian iconography, though mediated by its adoption by the Meroitic tradition, on the royal crowns found in the cemeteries of Ballana and Qustul.²⁶ From the aforementioned examples, it seems clear that Lower Nubia has always been not only the setting for a series of conflicts, but also an area where merchants, travellers, clergymen, officials and even soldiers had to live together and shared skills, cults and know-how. It seems pointless, nowadays, to focus

²⁵ For further information about the core-periphery model and a critical analysis of the capitalistic model of globalisation, see Wallerstein (1982). For the application of the world-system model to ancient society see the works of Andrew and Susan Sherratt (1991).

²⁶ On the Late Meroitic kingdom and the subsequent post-Meroitic age, see Török (1988). For the royal tombs of Ballana and Qustul, apart from Emery's excavation reports and publications, see Trigger (1969).

research on a prominence of Pharaonic Egypt over Nubia or vice versa towards an attempt to demonstrate Nubian roots for the Egyptian civilisation: both the approaches imply a supposed superiority, alternatively assigned to one or the other civilisation due to their prior antiquity, to be exploited in contemporary politics. Archaeological research should avoid being involved in contemporary political revindications. Instead, it should aim to the reconstruction of the past, following its own models and not by uncritically applying theories and models conceived for different époques. In the end, if we decide to confront the Lower Nubia situation to other similar cases around the Mediterranean,²⁷ it appears evident that there are usually unclear boundaries between different cultures, and the interface regions should be analysed through the lens of undefined categories and conceived as “gray zones”. Therefore, the archaeological research in Lower Nubia, both past and present, should be conducted and interpreted considering this theoretical background.

4. Shellal: corridor to Nubia

4.1. Early A-Horizon in Cemetery 7 at Shellal

Immediately south of Aswan lies the village of Shellal: surrounded by rugged granite sun-blackened cliffs which shield it from desert winds, it marks the border between Egypt and Lower Nubia. Like throughout the entire First Cataract region, the landscape's rocks bear traces of ancient granite quarries²⁸ and they are dotted with petroglyphs and inscriptions, from the predynastic up to

the Christian age. As a frontier region, the First Cataract has been characterised by a fluid interface among different human groups since the prehistory. Specifically, during the Naqada age the Nubian substrate coexisted with numerous commercial enclaves, initially in an equal relationship. During the Classical A-Horizon, the Egyptian enclaves gained increasing power, whilst the local population slipped into a subordinate position (Guyot 2008: 719-720). The First Cataract region has yielded significant late predynastic necropolises, whose findings helped scholars to partially reconstruct the hybrid nature of contacts between the Egyptians and A-Horizon people in the area: Kubbaniya and Sheikh Mohamed on the west Nile bank; Shellal, Khor Bahan and Ambukol on the east bank. It is important to note, however, that the excavated cemeteries are not representative of the entire social body, but rather of the élite members, their entourage and their family members and servants (O'Connor 1993: 15; Gatto 2016: 237). At Shellal, George A. Reisner, during the First Nubian Survey, identified Cemetery 7, which is of primary importance for population studies, since it remained in use continuously from the protohistoric to the post-Meroitic age. It has provided substantial evidence from Horizons A – first identified by Reisner here –, C and X, and it continues to serve as the main database for research on the region's history. The cemetery was fully investigated during the first ten weeks of excavation in the 1907-1908 campaign, with preliminary cleaning operations starting in February. Excavations reports indicate the tight schedule under which Reisner's team had to work, as they

²⁷Like the cultural interface between the Delta region and the nearby Sinai and Levant; the relationship between Greece, Cyprus, Anatolia and the Etruscan world; the Roman Empire and the so-called Barbarians etc.

²⁸It is the valuable pink granite of Aswan, employed in many Egyptian monuments, as well as Rome's Pantheon together with grey granite.

concurrently explored ten other necropolises dating between the A-Horizon and the Middle Ages, which yielded numerous skeletal and mummified human remains, as well as animal burials, which will be further discussed in the following paragraphs (Reisner 1908; 1910; Smith 1908; Smith and Jones 1910; Emery 1965: 41; Adams 1977: 74; Rampersad 1999: 3-15). The osteological material was collected and analysed by the anatomopathologist Grafton Elliot Smith, alongside his colleague Douglas Derry, who began a systematic statistical study to organise the vast amount of disposable data, and to gather information regarding the main population's features from a total of six thousand bodies: ethnicity, sex, age, social status, pathologies and traumas. Furthermore, Smith initiated a pioneering large-scale epidemiological study, which served as a model for subsequent archaeological missions in the region. In terms of accuracy and productivity, the results achieved during the first season remain unmatched, as later campaigns directed by Cecil M. Firth did not produce equally comprehensive reports, and a significant percentage of the human remains unearthed are currently untraceable (Metcalf et al. 2014: 4-9; Raue 2019: 103-104). Concerning the types of burials and grave goods, none of which include any Egyptian materials, they mainly consist of leather remains (possibly clothing), hats and baskets, alongside rare jewellery. The latter includes a luxurious necklace with six round gold beads and another one with gold beads decorated with spiral motifs, as well as the only known example of a bronze mirror attested for the entire A-Horizon, which had been found together with a folded linen cloth. Due to the relative simplicity of the grave goods, Reisner initially misattributed Cemetery 7 to B-Horizon, and it was not until the 1960s that the

chronology was corrected (Rampersad 1999: 229-231; Gatto 2016: 237). Cemetery 7, alongside the necropolises of Kubbbaniya South and Khor Bahan, is the primary evidence of A-Horizon in the First Cataract region, and it shows strong hybridisation features with the Naqada culture. The materials discovered in the northern cemeteries do not significantly differ from those identified in the Dhakka and Sayala regions. However, in northern Lower Nubia the practices of animal offerings and animal burials are more widespread: this feature is clearly influenced by the Badarian tradition, and it is typically found throughout Upper Egypt, up to Hierakonpolis (Gatto 2006b: 229).

4.2. From fishing-gathering to agriculture: evidence from the burials

The organic and inorganic materials discovered in Shellal burials have proven crucial for studying food production and the introduction of agricultural practices in the Early A-Horizon. Regarding cereal production, only the micro-botanical remains from Afyeh have been analysed so far, to determine their wild or domestic nature, although numerous specimens have been discovered in burials. Sometimes stored in vessels, otherwise in layers scattered underneath the body, or, as in the case of an intact infant burial from Cemetery 7, arranged in a rain-like pattern over the deceased. This peculiar method of deposition, besides being examined in relation to the role of cereals in the diet and, by extension, in society, might also be linked to a ritual significance that remains unclear (Reisner 1910: 39; Rampersad 1999: 161). Furthermore, there are not any records of baking practices for the Early A-Horizon, as cereal production was conducted on a small scale, and it did not constitute a primary resource. Therefore, it is reasonable to suppose the importation of

bread from nearby Egypt. Currently, the only evidence, albeit questionable, of possible bread remains was uncovered by Reisner in Cemetery 7, without further investigation (Reisner 1908; 1910). During the Early A-Horizon, the introduction of agricultural practices coexisted with the previous economy based on hunting and gathering, for which the main evidence, though scarce, unexpectedly comes primarily from funerary contexts: for example, in the absence of records concerning the domestication of date palm, the collection of such fruits can be inferred from their discovery within burials as offerings. Cemetery 7 at Shellal provides two interesting examples: two date pits found in tomb 107 and a large fruit from the dum palm, associated with a seed of the same species, from tomb 262 (Reisner 1908; 1910). Finally, the practice of fishing is clearly evidenced by the discovery of fish bones in the settlements of the Early A-Horizon, as well as baskets (prototypes of fish-traps) used as nets, found both in settlements and graves. Shellal, in particular, yielded an example described by Reisner as similar to modern Nubian baskets, characterised by a decorative pattern of red and white stripes (Reisner 1910: 38-42; Rampersad 1999: 169-173). The data provided by Cemetery 7 thus confirm what was stated in the previous paragraphs: the predominance of hunting, fishing and gathering economies over agriculture, the latter remaining (unlike in Egypt) a secondary factor. This was due both to the unique environmental conditions and to the different developmental trajectories of the Nubian world.

4.3. Animal burials: ritual sacrifice or symbolic value?

A distinctive feature of Cemetery 7 is the presence of a significant number of animal burials, whose interpretation is still

debated. This practice was relatively common during the Early A-Horizon, particularly in the First Cataract region as well as the northernmost part of Lower Nubia, despite the absence of clearly defined chronological boundaries. Animal burials are often not associated with human remains and they lack direct dating elements. Therefore, they can only be dated in relation to surrounding human graves with offerings. Concerning Cemetery 7, the presence of a human burial from the Early A-Horizon adjacent to an animal burial demonstrates that the interment of animals in human cemeteries has been observable since the earliest archaeological evidence (Flores 2004: 742; Gatto 2006a: 70). Moreover, almost all the evidence appears in the area north of Dhakka, which aligns with the spatial limits of the Early A-Horizon. So far, there are not any attestations of this particular type of burial for the Classical and Terminal phases, except for Sayala and Qustul, which indicates a change in practice overtime: alongside the variation in the animal species involved, by the decline of the A-Horizon this practice became exclusive of the southern Lower Nubian élite. In addition to Shellal, where ten animal burials are documented within an isolated cluster of human graves, a substantial number of animal graves has also been discovered in the contemporary Cemetery 17 at Khor Bahan, which shares similarities with Shellal in terms of period, geographical location, composition and type of funerary structures (Gatto 2000: 107; 2016: 238; Flores 2004: 742-743). Concerning the practice of animal burial in prehistoric and proto-historic times, although its meaning has been recently successfully rediscussed (Colonna 2021), scientific literature traditionally distinguishes between two types, based on their presence within human graves or in independent pits within the cemetery area: sacrificial rituals or early cult practices

related to sacred animals.²⁹ However, the former has been postulated only deductively, given the lack of direct connection between animal and human graves, that could serve as a supplementary element. The absence of a demonstrated link, nonetheless, does not preclude the sacrificial nature of the practice or a ritual value within the funerary customs of the time (Flores 2004: 731-733; Gatto 2006a: 70). The animal species represented include dogs, gazelles, goats and cattle; the two latter are also found in the elite cemeteries of Sayala and Qustul. Notwithstanding, the majority of faunal remains consists of dogs: a total of thirty-three individuals are distributed among twenty-five burials at Khor Bahan and Shellal. In Cemetery 7, in particular, one of the graves contained the remains of a dog associated with goat bones, whilst only four of the

remaining graves did not contain canids: these were four individual burials, evenly divided between goats and cattle. The nine dog graves from Cemetery 7 are clustered within an isolated group of fifty human graves, and they include single, double and triple burials. In his excavation reports, Reisner mentions a double burial of dogs as well as a triple burial. He did not notice any peculiarities in the arrangement or in the orientation of the remains, although he highlighted the practice of beheading³⁰ in three specific contexts: tombs 223 and 224 both contained canids, tomb 144 contained a goat. Decapitation would later be documented also in Qustul's Cemetery L (Flores 2004: 742-743; Gatto 2006a: 70; Hartley 2015: 67; Rampersad 1999: 183-188). Concerning the interpretation, it is crucial to underline the existence of similar contexts in Upper Egypt,³¹ albeit

²⁹ A more up-to-date problematisation of animal worship in Egypt has been elaborated by Angelo Colonna, who points out how, in Egyptian society, the phenomenon was not a relic from prehistoric times, instead it continuously reshaped, as long as it remained meaningful to the pharaonic culture. The author also notes how the recent works of Diane Flores on animal burials has reassessed their religious significance, questioning their traditional interpretation as attestations of a cult of sacred animals or as theriomorphic hypostases of the divine (Colonna 2021: 3-26).

³⁰ A precedent for dog decapitation in the Nile Valley is attested for the Neolithic: Cemetery C at el-Kadada includes sixteen tombs which contain dog skeletons. The remains are usually incomplete in their primary deposition, mostly featuring only the head. The phenomenon of animal dismemberment is equally attested in the same cemetery for goat burials. The deposition of the animals (canids *in primis*) beneath the deceased and only in single or double inhumations (but not in triple ones) suggests a ritual purpose, perhaps related to sacrifice. It is worth remembering that also human sacrifice is well attested in Cemetery C, unlike the other almost-coevals cemeteries of el-Kadada (Bonnet et al. 1989: 26-28). However, even if a supposed continuity between the Neolithic canid inhumations of el-Kadada and the A-Horizon dog burials might be intriguing, the author shares the perplexity of Bonnet et al., since in Shellal and Khor Bahan animal burials are autonomous and not related to human ones. The sacrificial nature of dog burials appears clearly, supported by the (even sporadic) practice of beheading, however the exact purpose of the sacrifice itself likely differs between the Neolithic el-Kadada canid inhumations and the A-Horizon Shellal ones.

³¹ Upper Egypt displays an apparent major concentration of the phenomenon. However, it is worth remembering that the studies on the distribution of animal burials in the Nile Valley are conditioned by the disparity of collected data. The same issues involve the apparent disparity between necropolises and settlements, the latter ones having yielded fewer animal tombs than the former ones. The reasons are to be found in the general scarcity of evidence related to settlements and the usually better conservation conditions of cemeteries (Hartley 2015: 19). Furthermore, even if widely explored during the three Archaeological Surveys of Lower Nubia, currently fieldwork in the region is not possible, hence the impossibility to collect new data. Concerning the possibility to review the data collected during the previous surveys, Nordström correctly pointed out that "A documentation by modern standards of this archaeological find material is not yet completed however, especially in view of the fact that much of it is still difficult to gain access to in museum stores" (Nordström 2004: 134).

characterised by major differences. Both the late predynastic cemeteries of Naqada and Hierakonpolis, as well as the First Dynasty royal necropolis of Abydos, provide evidence of animal burials in subsidiary graves. Among the main examples, a multiple dog burial from Naqada's Cemetery T, exotic animal tombs connected to elite graves in Cemetery HK6 at Hierakonpolis, seven lion subsidiary graves in the funerary complex of Aha in Abydos' Cemetery U, and four funerary stelae of canids dating to the reign of Den. Lions and bulls are easily identifiable as symbols of royal power, with bulls also having explicit religious connotations: the cult of Apis, while flourishing in later periods of Egyptian history, has its roots in the Protodynastic (Petrie 1896: 26; Wilkinson 1999: 39; Flores 2004: 745-749; Hendrickx 2014: 267-269). The role of the dog is more complex to define, due to its multiple functions in ancient societies: pet, work animal, hunting companion. The latter activity, a typical feature of the elite throughout the pharaonic age, is well documented by a significant number of petroglyphs as well as on ceramics. In the case of dog burials within human graves, it is reasonable to postulate a domestic relationship together with the economic value of the animal as a status symbol. In this framework, Reisner's interpretation of the single dog burials in Shellal and Khor Bahan, where the presence of collars suggests their role as pets, should be considered. In their publications on the subject, Ikram (2013) and Friedman et al. (2011) do not rule out the hypothesis of the joint burial of a master alongside his pet. However, they emphasise that this theory is not applicable to multiple burials lacking direct association with human graves, which constitute indeed the vast majority of the discoveries, and which could instead serve as markers of boundaries in the cemetery area, with the

dogs acting as symbolic guardians (Flores 2004: 751-755; Hartley 2015: 58-69). Concerning Cemetery 7, human burials can be divided in two categories: simple graves with scant offerings, primarily found intact, and richer burials which have undergone severe looting. The evidence shows the incipient hierarchisation during the Early A-Horizon, and the resulting inequality in accessing luxury goods. In this context, the placement of a cluster of isolated animal graves between the two main groups of human burials could be interpreted as an ideal boundary between different social classes. According to the author's opinion, the most convincing interpretation, which unifies the diverse typologies of animal burials, is the one proposed by Hartley, who identifies the dog as a guardian and protector: of its owner in the afterlife, in the case of human burials where the animal is typically placed at the feet of the deceased; of a group of elite burials, as a symbol of the hunting activities which were a major feature of the elite and distinguished it from the commoners; of the entire cemetery, in the case of clusters of dog burials not associated with human graves and distributed along the perimeter of the necropolis.

5. Sayala: the rise of local princes

5.1 The Sayala cantonal chiefdom through the analysis of Cemeteries 137 and 142

The history of Nubian studies is relatively recent within Egyptology, since Nubia has traditionally been considered as an appendage of the Egyptian State, which periodically sourced raw materials, exotic artifacts and human labour. The three main Nubian Surveys which took place during the last century have provided scholars with the opportunity to deepen their understanding of the region, in an attempt to reconstruct its social structure and cultural development as comprehensively as

possible from the earliest phases. While the previous section highlighted the Early A-Horizon, the current section will focus on the transition between the Classical and Terminal ages, through the joint analysis of Cemeteries 137 and 142 in Sayala, a major centre of southern Lower Nubia around which a cantonal chiefdom coalesced. These are two high-ranking necropolises which have yielded valuable grave goods, both locally produced and imported from Egypt (Rice 1991: 136-137). The Sayala district has been the focus of the archaeological mission directed by the University of Vienna as a part of the UNESCO campaign for the salvage of Nubian monuments. The aim was the systematic excavation of cemeteries and settlements, and it recorded and dated the petrographic cycles belonging to the A-Horizon as well. The concession extended along both Nile banks, from the village of Khor Nashryia in the north to Khor Sobakha in the south. The field director was Karl Kromer, and his team included paleoanthropologist Wilhelm Ehgartner and students Manfred Bietak, Reinhold Engelmayer and Peter Gschaidner, who later became prominent Egyptologists, alongside skilled workmen from Quft (Kromer and Ehgartner 1963: 72; Emery 1965: 96; Gatto 1995: 97; Rampersad 1999: 109). The first excavation season lasted eight weeks, from December 4th, 1961, to January 26th, 1962, and its primary aim was a general review of what had been overlooked during the previous Nubian Survey by Cecil M. Firth.³² Since the osteological remains found by Firth had neither been collected nor fully examined, Kromer deemed it necessary to systematically explore all the necropolises scattered on the eastern bank in the northernmost district

of the concession area, focusing on the anthropological analysis of human remains. This effort resulted in the discovery of a significant number of burials belonging to C-Horizon, to the so-called “pan-grave” culture,³³ as well as Roman and Byzantine periods, along with the A-Horizon settlements in the Khor Nashryia area. Human settlements in the region first took the form of rock shelters, in association with a wide variety of petroglyphs. During the first excavation season, five shelters and two storerooms set between the rock were uncovered, where hearths, mortars, fragments of lithic vessels and black-topped pottery, cosmetic palettes and ostrich eggshells were found (Kromer and Ehgartner 1963: 72; Rampersad 1999: 109).

5.2. Cemetery 137 and Cemetery 142

In the Sayala district, two main necropolises stand out, both initially investigated by Cecil M. Firth, then by the Austrian archaeological mission: Cemetery 137, belonging to Classical A-Horizon and located half a kilometre south of Sayala on the east bank, and Cemetery 142 of Naga Wadi, dated to Terminal A-Horizon. Both pertain to the local élite, though they differ in the size of the tombs, the wealth of grave goods and their chronology (Trigger 1965: 74-75; Hofmann 1967: 123; Smith 1994: 361; Rampersad 1999: 202; Flores 2004: 742; Gatto 2006a: 70). Cemetery 137, as detailed in Firth's reports, is located at the entrance of a small wadi and it includes thirty-one tombs, of which thirteen have been published³⁴ (Firth 1927: 204-212). These are wide structures which form a small élite necropolis, containing multiple burials resulting from successive interments over a limited time span. The

³²For the excavation reports redacted by Firth, see Firth (1927).

³³For further information about the “pan-grave” material culture, see de Souza 2018 and related bibliography.

³⁴The published tombs may indeed be fourteen: for further details, see Appendix C.

graves, sub-rectangular in shape, were cut into the alluvium and they originally featured heavy roofs made of stone slabs, most of which have collapsed overtime. The cemetery suffered multiple looting episodes, then it has been repurposed as a stone quarry and finally disturbed by sebâkh diggers (Trigger 1976: 42; Midant-Reynes 1992: 209; 2003: 303-304; Smith 1994: 361-363). Firth, however, emphasised that, despite the systematic looting, the high quality of grave goods discovered exemplified the high social status of the occupants, whether they were local chiefs or, as in the case of Tomb 1's owner, rulers from the Early Dynastic period (Firth 1927: 204). Tomb 1 is indeed the most significant of the cemetery, and it consists of a huge burial shaft. The collapse of one of the roof slabs on the northern portion of the structure occurred before the earliest looting, effectively sealing its content, thus allowing the preservation of the remaining grave goods and of the lower portions of two skeletons belonging to the occupants (Trigger 1976: 42; Adams 1977: 130; Smith 1994: 361; Rampersad 1999: 202-203; Teeter 2011: 84). Amongst the valuable goods discovered in Tomb 1, there were seven copper chisels, an axe, a copper bar ingot, and a harpoon tip.³⁵ The presence of copper artifacts marks a significant difference compared to the almost contemporary Cemetery L of Qustul, which yielded only a single spearhead of that typology.³⁶ Also, two noteworthy cosmetic palettes were unearthed, respectively large and

medium-sized, featuring a double-headed bird protome, similar to well-documented Egyptian samples. Between the two heads, there was a suspension hole. Other burials in the cemetery contained sub-rectangular palettes, a typology widespread in the Sayala region, suggesting the need for a comparative study (Rice 1991: 136-137; Midant-Reynes 1992: 209; 2003: 303-304; Rampersad 1999: 202-203; Smith 1994: 364-368; Teeter 2011: 84). Additionally, Tomb 1 yielded a green-glazed quartz lion protome, of a type typical of Naqada III, especially in the crafting of small amulets and beads. Concerning this particular sample, it is unclear whether it served as an amulet on its own or it was associated to another ritual artefact. Finally, of particular interest is a thin mica slate with a suspension hole, possibly employed as a mirror, which has parallels in Qustul's Cemetery L. Amongst the other findings, a significant collection of stone vessels, both locally produced and imported from Egypt, of exquisite craftsmanship. Additionally, both Naqada-type³⁷ and Nubian pottery vessels are attested, especially the black-topped red ware, typical of Classical and Terminal A-Horizon. Conversely, the thin-walled "eggshell" ware, the hallmark of Terminal A-Horizon widely attested in Qustul, is absent, thus suggesting a slight chronological precedence for Cemetery 137. Finally, the main discovery of Tomb 1 consists of two ritual maces with pear-shaped heads, respectively made of white marble and quartz, as reported by Firth (1927:

³⁵Copper harpoons are extremely rare within the A-Horizon, with only two specimens discovered to date (Rampersad 1999: 234).

³⁶However, this can be related to the severe plundering which affected Cemetery L overtime. The same phenomenon should be considered concerning Cemeteries 137 and 142 as well, which both suffered extensive looting.

³⁷Through the analysis of the Egyptian pottery distributional pattern throughout the A-Horizon region, it has been possible to highlight differences on geographical basis: the northern cemeteries (7-148 according to Reisner's nomenclature) yielded wavy-handled jars, while the southern necropolises (215-277) yielded wine jars. Finally, Cemetery 137 yielded different shapes of jars, varying in size, and a fair percentage of bowls. For further information, see Takamiya (2004) and related bibliography.

206-207). Their handles were covered in very thin gold leaf, one of which decorated with animal motifs. The latter was briefly housed in the Cairo Museum, before being stolen in the Twenties and never recovered. These two maces are among the most refined artistic products ever discovered for the period, and they have specific decorative parallels in Naqada IIIa ceremonial knife handles and ivory artefacts. The iconography features wild animals confronting in pairs, such as an elephant trampling snakes, a bull attacking a wild donkey, a lion and a lioness respectively battling a deer and a hyena. This imagery embodies typical royal symbolism: the sovereign, depicted as a lion or a bull, symbolises the cosmic order which subdues enemy populations and chaos, depicted as wild animals typical of the desert. The symbolic meaning is reinforced by the object it adorns: a mace, the traditional tool with which the sovereign is depicted in the act of the "smiting god" (Trigger 1976: 42; Rice 1991: 136-137; Midant-Reynes 1992: 209; 2003: 303-304; Smith 1994: 364-367; Rampersad 1999: 202-203; Manzo 2007: 43; Teeter 2011: 84). Two other significant tombs are those numbered 2 and 5 by Firth (1927: 206). Tomb 2, similar in length to Tomb 1 but narrower, yielded a stone incense burner similar to those found in Qustul, featuring a hemispherical shape and incised decoration. Tomb 5, on the other hand, shows more archaic features comparing to the other two ones. The remaining, smaller tombs belong to high-rank people, but not as much as the owners of tombs 1, 2 and 5. Overall, Cemetery 137 appears to serve as the burial ground for approximately three generations of local chiefs,³⁸ accompanied by their family members and entourage, who lived during Naqada IIIa1-a2, like the earliest rulers buried at Qustul

(the owners of tombs L-29 and L-24). The other main necropolis in the district is Cemetery 142 of Naga Wadi, which includes forty-six burial structures and shafts, of which only eleven have been published by Firth, along with five animal tombs. The cemetery suffered extensive damage from looters, however it has been possible to infer the existence of at least two princely graves: Tomb 1 and 6, both dating slightly later than those in Cemetery 137. Tomb 1 yielded copper implements, such as a chisel and an axe, together with ivory items and imported carnelian beads. Tomb 3 is noteworthy because a mortar, or perhaps a censer, was included in the funerary equipment. Finally, Tomb 6 yielded a fragmentary alabaster vessel, a piece of decayed wood likely belonging to a bow stave, which remarks the importance of archery in the Nubian world, and an ivory comb carved with two giraffes (Firth 1927: 215-216). Thus, Sayala's surroundings provide evidence for the existence of five or six local princes, belonging to two different families³⁹ who succeeded one another in power and were buried in almost contiguous necropolises, thus manifesting ideological continuity (Smith 1994: 372-375). Like the older necropolis of Shellal, also in Sayala animal burials are recorded. Specifically, two distinct clusters emerged during fieldwork in Cemetery 142, one consisting of three goat graves, and the other of two cattle tombs. While the first cluster appears to be contemporary to the adjacent Terminal A-Horizon human burials, the dating of the cattle burials is more problematic. Due to their wide size, unusual for the period, it has been suggested that these may be intrusive interments in an area of earlier tombs. However, the debate is still ongoing (Flores 2004: 743; Smith 1994: 376).

³⁸Exemplified, in chronological order, by tombs 5, 1 and 2 (Smith 1994).

³⁹Lived between the Naqada IIIa1 period and the reign of Aha or Djer (I Dynasty).

Based on the massive findings of Naqada pottery in both cemeteries, it is possible to suggest contacts between the chiefs of Sayala⁴⁰ and Upper Egyptian rulers. These connections likely involved not only long-distance trade, but also ceremonial gifts, a typical practice of archaic societies, as it is attested by the presence of royal artefacts (mace heads, fine stone vessels) in the tombs.

5.3. Hierarchisation and development of the complex chiefdom

Archaeological evidence attests the prominence of the Sayala district since the Early A-Horizon, when numerous burials featured Naqada artefacts alongside Nubian grave goods, thus suggesting strong commercial ties with Egypt. Trade itself could have strengthened the development of an élite of merchants in the region, whose wealth was based on trade. During the Classical A-Horizon, the Dhakka-Sayala plain emerged as a centre for the development of Nubian culture, and it expanded its influence onto surrounding areas (Gatto 2006b: 223-229; Guyot 2008: 717-720). On this era is focused the debate over the possible development of a cantonal chiefdom, of which Cemeteries 137 and 142 would be the primary evidence. While Trigger (1965) asserts that Cemetery 137 served as the burial site for a family of local leaders and their entourage, however the settlement patterns in the region do not reflect the typical chiefdom

form. In fact, there is not any evidence of minor centres grouped around a principal settlement, nor is there differentiation in rank and function amongst the supposed secondary centres.⁴¹ Similarly, although the A-Horizon has been long depicted in scientific literature as an egalitarian society, nonetheless Nordström pointed out a certain degree of hierarchisation as early as the 1970s.⁴² In this context, settlements and cemeteries of Sayala and Afyeh have been interpreted as the evidence of a rising class of chiefs who gained increasing prestige and power through control over trade routes towards Egypt and over the redistributive system of Egyptian imported goods in Lower Nubia (Hofmann 1967; Rampersad 1999: 201-203). In supporting the hypothesis of proto-monarchical hierarchisation, it is important to note that child burials from Classical and Terminal A-Horizon are not inferior neither in placement nor in quality of grave goods to those belonging to adults. Grave goods usually include leather fragments, possibly from clothes, as well as pottery, *faïence* beads, bracelets and anklets, necklaces. Notably, Tomb 3 from Cemetery 137, belonging to a very young woman, yielded numerous gold beads, Nubian pottery, cosmetic palettes, as well as a clay steatopygia figurine, likely a doll. The equivalence in type and quality of grave goods between child and adult burials is a clear indication of high status being conferred by birth rather than by merit. Based on the richness and quality of

⁴⁰These chiefs obtained a prominent role in the region thanks to the strategic position of the settlement, on the route controlling access to the gold mines of Wadi Allaqi and to the stone quarries located in the desert. For further information, see Guyot (2008) and related bibliography.

⁴¹This feature, however, does not automatically exclude the existence of a chiefdom or of any form of nomadic state, following a different development trajectory from the urban model of statalisation.

⁴²In his 2004 contribution, Nordström describes the A-Horizon as an «elaborate and mature social structure, perhaps organized around a female core with strong matrilinear tradition. [...] A persistent pattern of the A-Group cemeteries is certainly a shift towards a more complex structure characterized by material affluence and social inequality, evident during the Terminal A-Group. [...] There is a clear shift from early centres in the northern part of Lower Nubia towards an advanced chiefdom structure emerging around the Qustul complex in the southernmost part» (Nordström 2004: 134, 140-141).

funerary goods also in female burials, we are also able to infer that women did not played a subordinate role in A-Horizon society: on the contrary, the female status was central in the trajectory of A-Horizon hierarchisation, and it was related to prosperity and rituality, as well as the transmission of knowledge through generations. The major role women occupied in society is a shared feature within the Middle Nile Valley which also persisted in historic times and can possibly stem from the peculiar social structure of African pastoral societies (Gatto 2020: 132-133; Nordström 2004; Manzo 2020: 110). However, the debate concerning the precise nature of this privileged status has not reached definitive conclusions yet. While Trigger, like Firth, posits the existence of royalty, Adams suggests it may configure itself as an elective rather than hereditary monarchy, a typology linked to those semi-nomadic traits the A-Horizon always kept. The most plausible hypothesis, supported by the author, assigns the élite cemeteries of Sayala not to the rise of political leaders with kingship features (who acquired their status by warfare, for example, or by political conquest of neighbouring territories), but rather to wealthy commercial intermediaries. These intermediaries eventually gained wealth through their structuration in family clans, leveraging the strategic placement of the district at the entrance of Wadi Allaqi to begin a process of centralisation and redistribution of imported goods. During the latest phase of Classical A-Horizon and throughout the Terminal A-Horizon, alongside the growing social hierarchisation, the members of these clans gradually adopted models and ideology borrowed from the Egyptian élite, while simultaneously emphasising typical Nubian features. The hybridisation of cultural elements clearly appears in the rich burials of Cemetery 137 at Sayala.

6. Qustul: A “Land of Kings”?

6.1. Cemetery L of Qustul and the problem of the origins of pharaonic royalty

Qustul's Cemetery L is a significant archaeological site for understanding the origins of pharaonic royalty. Fieldwork was directed by Chicago Oriental Institute in the 1960s, and it unearthed artefacts and burial practices which provide crucial insights into the social and political structures of the time. The first campaigns revealed numerous graves, many of which contained luxurious goods, including metalwork, pottery and jewellery. These findings suggested a high degree of complexity and hierarchisation within society, indicative of emerging leadership roles that could be linked to later pharaonic practices. The artefacts yielded by Cemetery L have prompted discussions about the connection between Nubian and Egyptian cultures, particularly in terms of trade, political influence and ritual practices. The analysis of materials and their contexts has led scholars to reevaluate the dynamics of power and authority in early Nubian society. The evidence from Qustul suggests that the local leaders, besides being Nubian, were also engaging with and influenced by their Egyptian counterparts, laying the groundwork for the royal traditions which would characterise later Dynastic Egypt. As part of the UNESCO campaign for the salvage of Nubian monuments, the Oriental Institute was granted permission to excavate on both Nile banks in the region stretching between Abu Simbel and the Sudanese border. The first season began in January 1963, Keith C. Seele was appointed field director. His main purpose was to uncover the earliest A-Horizon evidence in the same region investigated by Emery during the Second Nubian Survey. Seele believed that the important discovery of the post-Meroitic

cemeteries of Ballana and Qustul (Emery 1938; Habachi 1981: 271) had inevitably diverted the archaeologists' attention from earlier periods (Seele 1974; 1981). The first, substantial evidence of A-Horizon in the Qustul area primarily consisted of a series of mostly empty shafts within Cemetery 220, together with further findings dated to X-Horizon and the Meroitic age. Soon, Seele decided to dismiss the numbering of cemeteries assigned by Reisner during the First Nubian Survey, since the location of cemeteries from 220 to 227 on the map was incorrect. Instead, he used the letters Q, R, S, T, U, V, W, J, K, and L. By the end of the first excavation season, new attestations of A-Horizon were unearthed in Cemetery VF, a subsection of Cemetery V,⁴³ despite the context being partially disturbed. The archaeologists discovered numerous large burials, all featuring the typical sunken side chambers, where various cosmetic palettes, jewellery items and pottery vessels were found. New circular shafts, likely linked to a nearby settlement, also emerged in the area (Seele 1974: 19; Rampersad 1999: 102). It was not until the second excavation season, in the winter of 1963-1964, that the main Terminal A-Horizon cemeteries, designated as L and W-1, were discovered. The latter was particularly rich,⁴⁴ yet the former, although

smaller,⁴⁵ is still unparalleled for its richness (Williams 1982; 1986a; 1989; O'Connor 1993: 20; Rampersad 1999: 103). Cemetery L was discovered in January 1964, and it had been completely overlooked by Emery. Even before Williams published the excavation reports in the 1980s, interpreting the exceptional findings as indicative of the existence of a Nubian monarchy prior to the unification of Egypt,⁴⁶ Seele himself immediately attributed the findings to Nubian rulers, due to the huge size of the structures and the richness and variety of grave goods (Seele 1974: 29-30; Williams 1982: 2-8; Rice 1991: 137; O'Connor 1993: 20). Almost 60% of the tombs are rectangular shafts with a sunken side chamber, typical of élite burials,⁴⁷ where the deceased was (or were, for multiple burials) placed on a funerary bed.⁴⁸ The dimension of the structures often doubles those of other known A-Horizon burials, thus underlying their owners' high status. This status is likely linked to the severe looting the cemetery suffered, which eventually led to the combustion and collapse of the burial wooden coverings (O'Connor 1993: 20; Midant-Reynes 2003: 304; Manzo 2007: 43). However, the destruction of the superstructures did not irreparably damage the grave goods, which included rare artefacts for A-Horizon, especially in such large quantities: cosmetic palettes, gold and shell

⁴³Cemetery V, together with S and T, yielded less material than Cemetery L, probably also due to the extensive plundering all the necropolises suffered overtime. Cemetery S includes twelve large graves with subsidiary burials, yielding traces of sacrifices (Rampersad 1999: 105; Teeter 2011: 87; Williams 1989: 42-43).

⁴⁴It was a high-ranking necropolis which yielded numerous intact tombs and huge amounts of pottery (Seele 1974: 40).

⁴⁵It included thirty-three tombs, of which seven were cattle burials (Flores 1999; 2004; Gatto 2006a: 69; Rampersad 1999: 104; Seele 1974: 29-41).

⁴⁶For the complete publication of Cemetery L, see Williams 1986a. for the publication of Cemeteries W, V, S, Q, and T, see Williams 1989. For Williams' hypothesis on Nubian royalty, see Williams 1978, 1986a, 1986b, 1987a, and 1987b.

⁴⁷Similar to Cemetery 142 at Naga Wadi and, in Upper Egypt, Cemetery HK6 at Hierakonpolis.

⁴⁸The employment of funerary beds is witnessed only in Qustul for the entire A-Horizon (Gatto 2006a: 69-70).

beads, ivory, semi-precious stones, clay tokens and cylinder seals, mace heads⁴⁹ and numerous dozens of incense burners. Alongside the precious items, archaeologists also found significant quantities of fine pottery: 75% was locally produced, 25% was imported from Egypt and the Levant. Notably, a class of wine jars decorated with painted bands were recovered in the cemetery, but are absent in northern Lower Nubia, thus suggesting direct contact between Qustul and Egypt, without the involvement of additional Nubian intermediaries (O'Connor 1993: 20; Midant-Reynes 2003: 304; Takamiya 2004: 55; Gatto 2006a: 69-70; Manzo 2007: 43). Tomb L-1, subjected to looting in ancient times, however yielded fine alabaster vessels and ceramic fragments, as well as the first of a series of incense burners (Seele 1974: 29-30; Gatto 2006a: 70). Tomb L-2, equally looted, belonged to a high-rank woman. Her grave goods included ivory, shell and bone ornaments, mostly earrings and lip piercings, alongside numerous First Dynasty jars and two fragments of *faïence* of exquisite craftsmanship (Seele 1974: 30). Tomb L-11 yielded a fragmentary mica slab, employed as a mirror, and the so-called "Archaic Horus" incense burner, decorated with Egyptian motifs: a typical Protodynastic boat and a sovereign wearing the White Crown and surmounted by a *serekh*, depicted smiting a prisoner (Williams 1986a: 115; Rampersad 1999: 230; Manzo 2007: 43; Teeter 2011: 88). L-17 is known as the "jeweller's tomb". The owner's body had been so heavily

vandalised by looters that neither its age nor sex could be determined. Around the neck, archaeologists found a necklace composed of sixty gold beads and a gold fly-shaped pendant. In a jar, five thousand complete and unfinished pieces of jewellery were recovered, including beads of various materials, earrings and lip ornaments. Amongst other grave goods, well-preserved pottery, cosmetic palettes bearing traces of malachite,⁵⁰ a copper drill employed to pierce beads, and an ivory cylinder seal. The latter features a theriomorphic motif: a flock of birds topped by a harpoon and flanked by a human figure. The artefact suggests the existence of a network of workshops and a form of administrative organisation of craftsmen (Seele 1974: 33; Rampersad 1999: 229-249; Gatto 2006a: 69-70). During the excavation of Tomb L-19, two unusual artefacts were discovered: a thirty-five centimetres length terracotta hippopotamus protome, presumably part of a complete model of the animal, and an incense burner. This peculiar class of incense burners at first was not recognised as such: it has been interpreted by Säve-Söderbergh as a type of lamp, whereas Seele, based on the presence of red and black traces on the upper concavity, believed it to be a peculiar palette for mixing pigments employed in pottery decorations, which featured red and black motifs (Seele 1974: 33-34). Currently, the black pigmentation is attributed to combustion traces, while the red one is associated with the type of incense that was burnt. Numerous examples also bear fire cracks. This class of materials

⁴⁹Mace heads have been previously attested in Cemetery 17 at Khor Bahan, but their connotations are not linked to royal power, unlike in Qustul. The semantic shift occurred due to the intensification of cultural contacts between A-Horizon and Naqada culture, which led the Nubians to adopt and re-adapt Egyptian imagery (Gatto 2006a: 71).

⁵⁰From the analysis performed on those traces, it has been possible to determine that malachite was applied with a brush. The palettes were usually carved in quartzite, schist, limestone, diorite, amethyst, and white or pink quartz. A reused alabaster palette, carved from a plate or a bowl, is also attested for Cemetery L (Rampersad 1999: 231; Williams 1986a: 114-115).

is widely represented in Qustul, for a total of thirty samples: twenty-eight from Cemetery L and two undecorated specimens from Cemeteries W and S. Nine more attestations come from other Lower Nubia sites. The artefacts are typically truncated conical or cylindrical in shape, with a height of 8-9 centimetres and a diameter of 10-14 centimetres (Nordström 1972; Williams 1989; Rampersad 1999: 240-241). Finally, the second excavation season led to the discovery of the main burial, Tomb L-24. It is the largest structure of the entire cemetery, and it consists of a shaft with an irregularly shaped burial chamber on the western side, which had been breached in ancient times by thieves, who accessed it through a tunnel. The owner's body had been severely damaged by looters, who fully destroyed it. Based on the remnants, it was inferred that the owner was a prince or even a sovereign, whose remains were laid on a wooden funerary bed adorned with copper inlays, one of which was papyrus-shaped (Seele 1974: 36; Rampersad 1999: 238). The exceptionally rich grave goods included two weapons: a gray stone pear-shaped mace and a triangular-headed spear with a copper tip⁵¹ featuring two holes for inserting rivets. Numerous pieces of jewelry were also found, including necklaces made of cylindrical gold, carnelian and *faïence* beads. Furthermore, the tomb yielded an assortment of cosmetic palettes, including one made of quartz, alongside a huge variety of pottery, whose decorative motifs were comparable to Egyptian and even Mesopotamian specimens (Seele 1974: 36-38; Rampersad 1999: 104-239). However, the main discovery consists of the renowned incense burner (OIM 24069) adorned with typical Egyptian

pre- and Protodynastic royal motifs, incised with sunken relief during an age when in Egypt high relief was predominantly employed. Thus, Seele interpreted the artefact as a monumental cylinder seal and believed it had been destroyed not by looters but deliberately by the owner to prevent misuse after his death (Seele 1974: 39).⁵² The decoration depicts a sacred procession of boats heading towards a palace façade motif topped by a falcon, comparable to an Egyptian *serekh*, under the guidance of a sovereign dressed in pharaonic attire seated on a throne, prominently wearing the White Crown of Upper Egypt. Alongside the procession, there are figures of deified animals, including the aforementioned falcon and an animal which Seele identified as a lion and Gatto interprets as a baboon (De Vries 1976: 55-74; Midant-Reynes 2003: 304; Gatto 2006a: 71; Manzo 2007: 43). Finally, tomb L-24, alongside L-23, yielded gameboards: rectangular limestone slabs featuring sixteen transverse incisions. The contextual finding of small *faïence*, carnelian and amethyst spheres led Williams to deduce that they were likely the playing pieces (Rampersad 1999: 252). The less wealthy burials in cemetery L suffered less damage from thieves and yielded numerous samples of thin-walled "Eggshell" ware (Seele 1974: 31). Concerning the orientation of the burials and the bodies, Qustul shows a change in funerary customs compared to earlier periods. During the Early and Classical A-Horizon, tombs generally tended to be oriented along a north-south axis, with the deceased preferentially laid on the left side, with the head oriented towards the south and the hands in front of the face. In contrast, the cemetery of Qustul showed a

⁵¹This is the only discovery of copper artefacts in the entire cemetery.

⁵²Seele, referring to his different interpretations for what appeared to be a unitary class of artefacts, stated that objects similar in shape do not automatically share the same label.

wide variety of orientations, particularly in the positioning of the upper limbs, which could be extended, bent with the hands in front of the pelvis, bent with the hands above the pelvis, or gathered towards the chest. Multiple burials, whether double or triple,⁵³ displayed different combinations of gender and age: two or three women, two or three men, two women and one man, two men and one woman, or one man, one woman and a child. Therefore, it is not possible to definitively assert whether these interments pertained to family groups or not (Rampersad 1999: 178-179). Finally, the cemetery includes seven cattle burials, which Seele initially interpreted as evidence of the social role of the people buried at Qustul, suggesting an élite comprised of livestock owners.⁵⁴ However, the animal remains were eventually attributed to wild species, and faunal analysis, if they were performed, are still unpublished. Cemetery L is the only documented case of animal burials associated with grave goods, similar to those found in human tombs. Tomb L-6 yielded storage pottery and shells, and the inhumated animals showed signs of beheading. The same was noticed for those buried in tombs L-3, L-7, and L-27. Animal decapitation is attested in tombs 144, 223 and 224 of cemetery 7 at Shellal, but not in those contemporaneous with Cemetery L (Rampersad 1999: 178-179). Unlike Cemetery 137 at Sayala, Cemetery L exclusively yielded cattle burials, which appear to be contemporary to human graves, based on their type and distribution (Flores 2004: 742-743). Williams suggested a sacrificial context for tombs

L-3, L-6, L-7, and L-27, not due to the practice of beheading but because of their apparent association with two nearby human tombs, L-2 and L-5, located slightly further north. However, the proximity itself is not sufficient to confirm the hypothesis. Additionally, tomb L-33, isolated from the human burials, is the only specimen in the entire cemetery with orientation east-west rather than north-south, thus suggesting a prominent role, however Williams never elaborated on this (Rampersad 1999: 187-188).

6.2. Nubian royalty in Cemetery L: different interpretations

Considering the extremely rich discoveries at Cemetery L, in a region previously considered peripheral to Egypt, a debate emerged in the 1970s and in the 1980s, concerning the sociocultural aspects of A-Horizon, primarily addressed by Williams. However, this perspective is somewhat partial and focused almost exclusively on the supposed existence of Nubian rulers employing iconographic motifs typical of the emerging Egyptian monarchy (Rice 1991: 137; Gatto 1995: 100). Williams posits that centralisation of Nubian State preceded Egypt's one, even suggesting that Nubian kings conquered Upper Egypt during the years immediately before Dynasty 0 (1986a; 1986b; 1987a). While the latter hypothesis is currently unsustainable (Adams 1985 and related bibliography; Manzo 2020 and related bibliography), Williams correctly identifies elements of pharaonic iconography at Qustul (1987b), particularly regarding the

⁵³The existence of multiple burials in Nubia is attested since the 5th millennium BCE and can be considered a local feature. Among the major examples stands out the cemetery of Kadada (Reinold 2007). The presence of multiple burials may refer to the administration of power: not exclusively held by a powerful male individual (i.e. a king) but rather shared at a communal level by an élite group (Gatto 2020: 133).

⁵⁴For the social and economic role of cattle in African cultures, from the Neolithic up to the post-Meroitic era, see Dubosson 2020 and related bibliography.

incense burner from Tomb L-24, however, it is now established that such stylistic features were already in use in Egypt prior to this period.⁵⁵ Given that the burials at Qustul are contemporary with tomb U-J and Cemetery B at Abydos, it is plausible that they entered Nubian territory as a result of the expansionist efforts of the Abydos-Hierakonpolis coalition towards south, leading to contact with merging local power structures and the onset of hybridisation phenomena (Adams 1985; Manzo 2007: 43; Hendrickx 2014: 267). In this context, one must interpret the significant presence of Egyptian imported artefacts in the burials of Cemetery L, particularly 271 pottery items, including 123 high-quality stone vessels, as well as 11 jars of Syrian and Levantine origin – the latter being unique within A-Horizon. However, this is not an Egyptianised cemetery: the types of burial structures are Nubian, as are the 800 examples of thin-walled “eggshell” vases found, along with the cosmetic palettes made of amethyst and quartz (O’Connor 1993: 20–21). The same hybrid features are exemplified by the incense burner from Tomb L-24, which combines a typical Nubian shape with Egyptian decorative motifs, for which parallels have been highlighted with the processional scene depicted in Tomb 100 at Hierakonpolis. This suggests that the incense burner might have been decorated by an artist who may have worked for the Egyptian court (or had assimilated

the Egyptian royal iconography), but the patron must have been a Nubian, because this type of artefact is not attested in Egypt, plus it bears symbolic features which are meaningful only in the Nubian cultural horizon (Gatto 2020: 133–134).⁵⁶ Therefore, the importance of Cemetery L is not related to its supposed precedence in the formation of the Egyptian State, instead it lies in the evidence of a local proto-royalty (accompanied by a proto-administration, whose evidence consists of seals), which, in light of the absence of contemporary cemeteries of similar significance, indicates that Qustul must have played a prominent role in the political control of Lower Nubia. This represents not merely a cantonal-size chiefdom, as we already saw in the case of Sayala, but rather a proto-state governance, resulting from a gradual process of centralisation, reflected in social stratification. In this context, the large tombs of Cemetery L are surrounded by more modest burials belonging to family members and subordinates of the local chiefs. In conclusion, the Egyptian royal iconographic features observed at Qustul are the result of a phenomenon of imitation and cultural appropriation by a nascent social élite, showcasing their ability to achieve dominance comparable to that of Egyptian rulers, even extending into the southern regions of Upper Egypt (O’Connor 1993: 21–23; Rampersad 1999: 205–212; Midant-Reynes 2003: 304; Takamiya 2004:

⁵⁵The features of Egyptian royal iconography develop from internal factors after a long gestation, whilst in Lower Nubia there is no evidence of social hierarchisation prior to Terminal A-Horizon. However, even during the latter, it is fully attested only in Qustul, Sayala, Afyeh and Tunqala West (O’Connor 1993: 21; Rampersad 1999: 211–212; Wegner 1996; for further details on Afyeh and Tunqala West, see Stevenson 2012a and 2012b).

⁵⁶Concerning the material, Williams claims it is Nubian quartz, whereas other scholars believe it to be Egyptian limestone. To date, diffractometric analyses have not been performed yet, to confirm or deny the hypotheses. Furthermore, there is not information available relating to the other artefacts found together with the incense burner. Williams was not present during fieldwork, hence he had to formulate his hypotheses based on the material collected by Seele, who had since passed away. For further information, see Huyge (2014), O’Connor (1993), Rampersad (1999), and Teeter (2011), and related bibliography.

60; Manzo 2007: 43; Teeter 2011: 87). These attempts at conquest would provide a compelling explanation for the increasing political aggressiveness displayed by Egypt towards its Nubian neighbour: no longer a mere trading intermediary, but rather a political rival.

7. Conclusions

Based on the information presented so far, it is possible to draw some preliminary conclusions regarding the transformations in political and commercial relations between the tribes of A-Horizon and Early Dynastic Egypt. Firstly, an analysis of the distribution of animal burials across the three cemeteries (Appendix A) reveals a marked shift in burial practices between the Early and Terminal phases of A-Horizon. At Shellal, dog burials predominate, exhibiting the features discussed in the previous sections, with only a single instance of caprine remains. In contrast, at Naga Wadi, only caprine remains are present, along with two cattle burials, although the dating of these remains uncertain. Finally, cattle burials are the exclusive type recorded at Qustul. The practice of animal burials is attested in Badarian Egypt, as well as in late Predynastic Hierakonpolis, and it continues into fully Dynastic times at Abydos. Given these parallels, it is reasonable to hypothesise a shared origin for this practice between Nubia and Egypt. Regarding the animal species involved, the role of the dog as a hunting companion – and, by extension, as a symbol of elite practice – was a notable feature of Early Dynastic Egypt, as exemplified, for instance, by the famous spinning top of Hemaka (JE 70164) (Piacentini and Delli Castelli 2023), and by the aforementioned funerary stelae of canids dating to the reign of Den. However, over the course of the Old Kingdom, the significance of

the dog as a symbol of royal power gradually waned. Similarly, at Cemetery 7 in Shellal, the presence of dog burials within a distinct cluster of tombs may suggest the high status of the individuals interred there, within the broader context of an emerging process of social stratification. At a later period, the cemetery of Naga Wadi, located in the heart of the Dhakka-Sayala district, features the exclusive burial of goats. Within A-Horizon, there are notable differences in the economic trajectories of northern and southern Lower Nubia: to the north, trade and manufacturing are predominant, whereas to the south, animal husbandry plays a central role (Gatto 1995: 100). The prominence of livestock farming is also evident in later phases, both in Lower Nubia with the advent of C-Horizon, and in Upper Nubia throughout the Kerma culture. In this context, the presence of goat burials in an elite cemetery in upper Lower Nubia may be interpreted as an assertion of economic power by the local chiefs, who base their wealth on the ownership of livestock. A similar process can be applied to the presence of cattle burials in Cemetery L at Qustul, where the proto-rulers established their political dominance on a dual foundation: pastoral and commercial. This is further reinforced by a strong ritual significance, evident in the presence of grave goods in the animal burials – a unique feature among the cases under analysis. Since its domestication in 6500-5500 BCE, cattle soon played a major role both in economy and society of African human groups, and it became integrated in food producing as well as in funerary contexts. The first evidence belongs to the Neolithic cemetery of el-Barga, where a tomb belonging to a man and a child yielded a bucran. The deposit of bucrania inside graves spread across different Nubian cultures between 6th and 4th millennia BCE: in particular, the Kadruka cemeteries yielded, together with cattle skulls, also

horns and skins (Dubosson 2020: 909-912). Animal deposits reflect the way society dealt with death (Dubosson 2020: 920): animal remains are often placed in contact with the deceased, and cattle deposits can be related both to the status of the tomb's owner and to the effective possession of livestock during life. The major role played by cattle in Nubian society also persisted in historic times, from the C-Horizon up to the post-Meroitic era. In this sense, the presence of cattle burials in Qustul, together with the practice of animal beheading, may be interpreted indeed as a further development of the Neolithic bucrania inhumations: the interment of heads may express a metonymic significance (the head for the whole) and underpin the sacrificial nature of the ritual. In Qustul, the sacrificial aspect is highlighted by the ritual action of beheading, strengthened by the presence of funerary equipment in animal tombs. Nonetheless, the peculiar form of cattle interment in Qustul may be related to a further interpretative layer which partially overlaps and partially mingles with the aforementioned one, that involves the meaning of the bull not only as a symbol of economic wealth but also of political power. The bull in Egypt holds religious connotations, as evidenced by the cult of Apis, which has its origins in the Early Dynastic period (Colonna 2021: 31-37).⁵⁷ Furthermore, the bull is a symbol of sexual power, associated with royal authority and the more archaic aspects of certain male deities (in historical times, the blue bull is the animal hypostasis of Osiris-Min, in his most ancient and primordial

connotations). In the petroglyphic cycles of the Aswan region, the figure of the bull crushing its enemies appears, oriented differently from other animal figures, thereby emphasising its uniqueness and symbolic value. However, the major role played by the symbolism of the bull in the Egyptian religion and display of power is not reflected by an analogous central role in Egyptian economy and society: hence, it may pertain to the substratum of cattle pastoralists which developed during the Early and Middle Holocene especially in the Western Desert:⁵⁸ in this sense, the cult centre of Nabta Playa is a clear example. The contact between cattle pastoralists and early Nilotic Neolithic groups with an agricultural economy, as well as the coexistence and functional separation between the two economic models, eventually impacted on the Egyptian social development (Wendorf and Schild 1998: 114-116). Given the common background of cattle pastoralism between Egypt and Nubia, which eventually developed following different trajectories, and taking into account the social and ideological meaning related to cattle in Lower Nubia since the Neolithic, it is therefore reasonable to hypothesise that, within the context of commercial exchanges between the chiefs of Qustul and the early rulers of Upper Egypt, as evidenced by the hybrid iconography of the censers from Cemetery L, the Egyptian royal symbolism of the bull, like other iconographic elements (white crown, serekh, falcon, etc.), also became incorporated into the Nubian world as a familiar element enriched of new semantic features, partially overlapping the autochthonous

⁵⁷The first attestation of the Apis bull, already embedded in a ritual framework and in a strong association with royal authority, dates to the reign of Aha. Other major testimonies of the role the animal acquired in relation to kingship are provided by a sealing of Den from Saqqara, a broken ivory label from Den's tomb at Abydos and two ebony labels of Qaa from Abydos, as well as iconographical traits featured on the Narmer palette (Colonna 2021: 31-35).

⁵⁸For the development of cattle pastoralism and the "African cattle complex" in the Sahara, see Di Lernia et al. 2013.

ones. The censer from Tomb L-24, which depicts a bull above a sacred boat, serves as an exemplary case in this regard. The orientation of Tomb L-33, which differs from that of the surrounding burials and is aligned along an east-west axis, may be interpreted in this symbolic context: the bull, a symbol of kingship, generative power and rebirth, is buried in alignment with the sun's path, facing the dawn, or the rebirth of the celestial body after the night. However, one must be cautious not to assume that the Nubian world passively adopted the iconographic and symbolic elements of Egypt, replicating them identically. On the contrary, in light of the centrality of cattle pastoralism in southern Lower Nubia as a primary economic element, and consequently, of political dominance, it is reasonable to hypothesise that the chiefs of Qustul actively assimilated the Egyptian proto-monarchic meanings of the bull, adapting them to their own cultural background: the bull, associated to other symbols of kingship, became not only a symbol of wealth and status on a local scale, but rather the expression of royal dominance of divine ascent, able to conquest and subdue, like the politically strong Egyptian neighbour was doing at the time. Therefore, we can conclude that the depictions of bulls at Qustul allude to an iconographic system of power and kingship of Egyptian origin, yet closely intertwined to the traditional Nubian socioeconomic symbolism of cattle as a status symbol, linked to the actual possession of such livestock (hence the burials of bulls) – the foundation of Nubian pastoral wealth and power.

With regard to the grave goods, those from Cemetery 7 at Shellal are relatively simple (Appendix B), predominantly consisting of local objects: shell jewellery, ivory artefacts, and pottery. Mace heads are attested in two tombs: one male and one that has been heavily looted, making it impossible to determine the number, sex, or age of the individuals buried there. In the latter, the mace head is associated with an axe, of which a second specimen was found in a shared tomb containing the remains of a man and a woman. The grave goods from this tomb included distinctive items, such as the so-called "reptile rings". The modest presence of weapons suggests the development of an emerging social hierarchy. In this context, further support for this idea can be drawn from the burials of infants, whose grave goods are as elaborate as those of adults, and in some cases even more so. Thus, social status appears to be linked to birthright rather than being acquired through merit. One child's tomb contained a beryl bead, a mineral also attested by three pendants and fourteen beads found in another burial. Beryl was sourced in Egypt, but not in Nubia, making it one of the rare imported materials recorded at Shellal. From the same tomb also came eight carnelian beads, which were also discovered in another tomb, possibly belonging to an infant. Likewise, carnelian was an imported luxury item, mined and worked in the Indian subcontinent, and its trade routes to Africa partially overlapped with those of lapis lazuli, first reaching Egypt and then Nubia.⁵⁹ Based on the available data,

⁵⁹One carnelian mine was active near Gebel el-Asr, however it was exploited mainly during the Middle Kingdom, with traces from the Old Kingdom and the Roman age. For other periods, Harrell posits "[...] one or more undiscovered sources in Egypt's deserts or, perhaps, in southern Egypt's and northern Sudan's Nile River terrace gravels". Hence, an Indian provenance for the A-Horizon age, mediated through Egypt, cannot be completely excluded, since during the pre- and Protodynastic age Egypt imported lapis lazuli, whose trade followed almost the same routes. Nonetheless, it is equally plausible to hypothesise carnelian importation from the deserts or sporadic forms of local exploitation in Nubia. The two provenances could even have coexisted. For further information, see Harrell 2012.

it can be hypothesised that Shellal hosted Egyptian merchants and imported certain categories of luxury goods. However, the majority of the population during the Early A-Horizon period displays distinctly Nubian traits in their burial customs. Cemetery 137 at Sayala (Appendix C), in addition to the aforementioned copper artefacts and mace heads from Tomb 1, also yielded a censer (Tomb 2), a type that would gain particular significance in the subsequent Terminal A-Horizon. The presence of a lion-head amulet suggests the symbolic importance of this animal, possibly already associated with royalty, as the amulet was found in one of the three princely tombs of the necropolis. As previously discussed, Sayala was the centre of a canton-sized district, a chiefdom with its own ruling élite. Sayala also yielded imported goods, including notable examples of Egyptian transport jars and beads. The latter are particularly noteworthy: Tombs 2 and 6 yielded cowrie shells, typically marine and therefore imported. Similarly, there were imported samples of beads made from turquoise, garnet and carnelian. Turquoise was mined in the Sinai, so it is reasonable to assume Egyptian mediation in its acquisition, and the same applies to carnelian. Garnet, however, was sourced from the metamorphic rocks in the Eastern Desert and the Sinai, as well as in placer deposits near the Fourth Cataract and Central Africa (Harrell 2012), highlighting Sayala's role as a commercial intermediary between the Egyptian and Saharan worlds and sub-Saharan Africa. Likewise, a high concentration of carnelian was found in Tomb 1 at Naga Wadi (a necklace, beads, and amulets), the only

burial to also contain copper artefacts, including an axe (Appendix D). the correlation between symbols of power and imported goods is clear, within the context of the gradual social stratification during the transitional period between the Classical and Terminal A-Horizon. The process of social stratification at Qustul has already been discussed in previous sections, both in terms of the types and wealth of artefacts, and the pharaonic symbolism depicted on the censers found there. With regard to imported artefacts, 25% of the pottery is of Egyptian or Syro-Palestinian origin (Appendix E), predominantly consisting of transport and storage jars, which attest the importation of grain and wine by the Nubian chiefdom in exchange for exotic goods. Among the imported items, marine shells, garnet and carnelian reappear, the latter in the form of beads, amulets, and rubbing pebbles. Turquoise, which is present at Sayala, is not attested here, while amethyst, also sourced from Central Africa,⁶⁰ appears in fairly significant quantities. The percentage of imported goods at Qustul is notably higher than at the previous cemeteries, and the variety of grave goods is also greater, with the inclusion of model objects, amulets in distinctive forms, numerous cosmetic palettes, and various types of jewellery. Based on the evidence presented so far, it can be concluded that the phenomenon of social stratification and the presence of imported goods in Nubian territory go hand in hand, with trade and cultural hybridisation emerging as one of the driving forces – or perhaps the primary driving force – behind the development of complex societies.

⁶⁰Amethyst mines are reported also in Egypt: at Abu Diyeiba (near Wadi Waseef) and near Wadi el-Hudi. However, the former was active during the Ptolemaic-Roman age, while the latter during the Middle Kingdom (Harrell 2012). Since in Egypt amethyst was rarely used before the Middle Kingdom, the author believes the Central African provenance for Nubian amethyst as more plausible than an Egyptian one.

As early as 1995, Gatto already highlighted the stagnation in prehistoric and protohistoric research in Lower Nubia, primarily attributed to the objective impossibility to reprise fieldwork due to the presence of Lake Nasser. Moreover, the data collected and published by archaeological missions in the region is often fragmented and, to a considerable extent, has not undergone systematic analysis yet. Thus, a re-examination of the existing documentation proves desirable, both regarding excavation reports and for a thorough comparative study of the recovered materials (Gatto 1995: 101). However, during the last twenty years Nubian archaeology has experienced a boost in fieldwork activity, with the salvage project related to the construction of the Merowe Dam and the beginning of the Qatar-Sudan archaeological project, both involving the Middle Nile Valley (Näser 2020: 39). Additionally, as Rampersad noted (Rampersad 1999: 436-438), many aspects related to the culture of A-Horizon remain unclear. Firstly, it is necessary to provide absolute radiocarbon dating for its earliest phase, which is currently lacking. Similarly, archaeozoological and archaeobotanical analyses of faunal and floral remains are warranted, both for studying distribution and clarifying the domestication process of plants and animals. Thirdly, a quantitative study on pottery and its associations is needed, as the only serious typological classification available at the present day was conducted by Nordström and it solely pertains to the material discovered by the Scandinavian Joint Expedition during the UNESCO Campaign in the 1960s (Nordström 1972; 2006).⁶¹ Furthermore, regarding the nature of animal burials in human necropolises, a deeper examination would be beneficial

to clarify the numerous ambiguities and to enable effective comparisons with animal symbolism in nearby Egypt, in the Western and Eastern Deserts and in the Middle Nile Valley. Finally, moving beyond Williams' hypothesis concerning the royal status of Qustul's tomb owners would allow the site's detachment from its unique status, thus facilitating its analysis within the social development of Terminal A-Horizon. This would shed a light on social transformations and recontextualise the artefacts within a broader framework, overcoming the current interpretation of them as anomalies, more akin to antiquarianism and the cult of "museum-worthy artefacts" than to a proper analysis of their archaeological context. Ultimately, the author believes a comprehensive survey of the material retrieved during the three major Nubian Surveys is essential, together with research into the exact location of dispersed artefacts and osteological remains, to create a detailed corpus which would serve as a foundational basis for future studies in Nubian archaeology.

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⁶¹ More recently, two notable works include Nordström, Bourriau 1993 and the slightly different and more general work of Romain David on ceramic studies (David ed. 2022).

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Appendix A – Animal Tombs

PERIOD	CEMETERY	TOMB	DOGS	GOATS	CATTLE
Early A-Horizon	Shellal 7	223	1 (beheaded)		
		224	1 (beheaded?)		
		227	1		
		228	1		
		231	2		
		252	3		
		255	1	1	
		256	1		
		264	1		
Classical/Terminal A-Horizon	Naga Wadi 142	14			1 (uncertain date)
		15			1 (uncertain date)
		16		1	
		17		1	
		17a		1	
Terminal A-Horizon	Qustul L	L3			1 (2 bones)
		L6			1 (beheaded)
		L20			1 (beheaded)
		L25			1
		L26			1
		L27			1
		L33			1 (unusual orientation E-W)

Adapted from Flores 1999: 134-141 and Reisner 1910: 39-45.

Appendix B – Shellal Tombs

[illegible]

[illegible]

N.	Bodies	Gender	Age	Necklaces	Bracelets	Clothing (leather)	Beads	Pendants	Palettes	Pottery	Malachite	Resin	Needles pins	Ivory items	Bone items	Rubbing/ grinding implements	Maces	Axes	Baskets	Grains seeds	Ostrich
253	1	M	adult		1 ivory		shell	1 pendant		1 pan (half) 1 cup (fr.)	fr.				1 spat- ula 1 horn						
254	1	N.D.	infant	2 shell	1 jasper/ shell	1 bag 1 mass		2 pebble 4 tor- toise shell cres- cents	1 stone				1 wood			2 stone 1 pebble			1		
257	1	M	adult																		
258	1	N.D.	infant				4 shells														
259	1	N.D.	infant																		
260	1	F	adult				2 shells														
261	1	F	adult																		
262	1	N.D.	adult																	1 dum nut 1 seed	
263	1	F	adult	1 shell/ coral		1 coil of twisted thong	shells								1 sharp- ened rib 1 horn spatula						
265	0																				
266	1	N.D.	adult											1 spoon (fr.)							
267	1	M	adult																		
268	0													1 spoon (fr.)							

Table elaborated basing on Reisner's excavation report (Reisner 1910: 39-45).

Appendix C –Sayala Tombs

N.	Bodies	Copper implements	Ivory items	Maces	Stone objects	Bracelets	Piercings	Beads	Amulets/ Pendants	Malachite	Resin	Pottery	Palettes	Stone vessels	Rubbing/ grinding/ implements
1	2	4 chisels 3 adzes 1 bar 1 harpoon	1 handle	2 gold handles 1 marble head 1 quartz head	1 slate dipper			turquoise shells garnet carnelian	1 quartz lion's head			9 bowls 4 jars 2 <i>situlae</i> 1 pan 1 pot	2 slate double bird 1 quartz 1 granite	1 bowl porphyry	1 slab 1 pebble 1 quartz pebble
2	0				1 granite censer 1 granite mortar (fr.)	mother-of-pearl (fr.)		1 cowrie shells				2 jars 1 bowl potsherds	1 pebble 1 diorite		2 sandstone slabs 1 quartz rubber
3	0				1 mica mirror	1 shell (fr.) 1 mother-of-pearl 1 ivory		shell			quantity N.D.	4 bowls 1 toilet jar 1 jar potsherds	3 quartz		1 pebble
4	3				2 sandstone mortars 1 quartz pounder 1 stone mortar 1 mica mirror (fr.)	4 10 shell bone green glazed		2 shell 1 carnelian	1 quartz pebble	quantity N.D.		1 bowl 1 pot	2 speckled porphyry 1 b/w porphyry 1 b/w stone 2 quartz		5+ pebbles 1 slab 2 sandstone slabs 1 quartz slab
5	0						1 shell (nose)	shell green-glazed				6+ bowls	1 speckled stone	1 alabaster	1 sandstone table

N.	Bodies	Copper implements	Ivory items	Maces	Stone objects	Bracelets	Piercings	Beads	Amulets/ Pendants	Malachite	Resin	Pottery	Palettes	Stone vessels	Rubbing/ grinding implements
6	2	1 chisel			flint flakes	1+ shell (fr.) 1 mother-of- pearl (fr.)		shell cowries		quan- tity N.D.	quan- tity N.D.	1 shallow ware 2 jars potsherds 1 toilet jar 2 bowls (fr.)	1 quartz 1+ speckled stone		3 pebbles
6 ⁹	0					1 shell (broken) 1 ivory		shells				2 bowls 1 jar	3 speckled stone 1 quartz		
7	0					mother-of- pearl (fr.) shell (fr.)		carnelian				1 bowl (broken)	1 quartz (broken)		

⁹ In Firth's excavation reports, Tomb 6 is described in the following terms: "Grave: Parallel sides and rounded ends, 140 × 80-120 cm. Sealing slab in position across foot of grave. Burial: Skeleton contracted on L. side. Head WSW. Bones of a second burial B. in debris". Then, before the description of Tomb 7, another grave description is provided, however the tomb is not designated by a number: "Grave: Parallel sides with rounded ends 180 × 105-140 cm. Burial: Removed". Subsequently, the report mentions tombs 7, 8, 9, 10, 12, 15, 23, for a total of thirteen published tombs. It seems unlikely that the second grave mentioned together with Tomb 6 is the "second burial B. in debris", since the description both involves grave shape and burial content. Furthermore, subsequent burials within the same grave are usually given by Firth in the section focused on burial content. In this case, we have a brand-new description of both grave shape and burial content, without a tomb number assigned. It is unclear whether the unnumbered tomb cuts or superimposes Tomb 6, neither Firth mentions any kind of stratigraphic relation between the two structures. In recent bibliography, I have not found any information about this anomaly, since most authors state that, out of thirty-one tombs in Cemetery 137, Firth published only thirteen, whereas, apparently, number 6 includes two different structures, for a total of fourteen published tombs. Hence, I decided to treat separately Firth's descriptions, by assigning the number 6b to the unnumbered tomb.

N.	Bodies	Copper implements	Ivory items	Maces	Stone objects	Bracelets	Piercings	Beads	Amulets/ Pendants	Malachite	Resin	Pottery	Palettes	Stone vessels	Rubbing/ grinding implements
8	0									frag- ments		potsherds			
9	0											1 bowl			
10	0				1 mica mir- ror							1 bowl (boat- shaped) 1 bowl	1 speckled stone		
12	0											2 bowls (fr.) 1 bowl	1 quartz		
15	0											2 bowls 1 jar	3 b/w stone 1 quartz		
23	0							gold garnet glazed steatite							

Table elaborated basing on Firth's excavation report (Firth 1927: 204-211).

N.	Bodies	Age	Copper implements	Ivory items	Wooden items	Stone objects	Necklaces	Bracelets	Piercings	Beads	Amulets/ Pendants	Malachite	Pottery	Palettes	Stone vessels	Rubbing/grinding implements
6*	1			1 wand/ throw stick 1 boat- shaped shid (?) 1 comb with carved gi- raffes	1 bow stave (?)			1 mother- of-pearl (fr.)				quantity N.D.			1 ala- baster (fr.)	
7	0												pot- sherds			
8	1												2 bowls			
9	1					1 mortar							1 bowl			
11	1															
18	1												1 toilet jar 2 bowls			
19	0								1+ shell nose/lip studs		1 mother- of-pearl crescent					

Table elaborated basing on Firth's excavation report (Firth 1927: 212-216).

* Firth suggests the possibility that Tomb 6 may date to the Old Kingdom. The absence of pottery makes it difficult to ascribe the tomb to a specific date, however the shape and decoration of the comb suggest its pertinence to the Terminal A-Horizon.

Appendix E –Qustul Tombs

N.	Bodies	Sex	Age	Copper implements	Tools	Models	Shell hooks	Ivory/bone items	Censers	Necklaces	Bracelets	Studs	Beads	Amulets/ Pendants	Mica	Pottery	Palettes	Stone vessels	Rubbing/ grinding implements	Maces
L-1	0							1 worked bone (fr.)	1 lime- stone		1 deco- rated (?)		3 gold 9 faience 55 feld- spar	4 resin		Potsherds (E/N)	1 quartz	1 jar 2 bowls 1 bowl base	19 pebbles	
L-2	2	F: N.D.	adult adult		2 stands (E)* 1 strai- ner (E) (fr.) 1 carved wood (fr.)		2	1 horn comb (fr.) 1 horn- core	2 (fr.)		8 ivory (fr.) 3 shell (fr.) 1 “stone” (fr.)		Shells 5 sea- shells			3 jars (N) 3 jars (E) 3 miniature cups (fr.) 1 faience jar potsherds	6 sand- stone	23 jars 12 bowls 1 boat (?) 1 alabas- ter fragments	Pebbles 4 pestles 2 mortars (fr.)	
L-4	0						1											1 fr. 5 bowls	1 mortar	
L-5	0				1 pot- stand (E) 1 carved wood (fr.)		9					1+	2 square (?)		fr.	1 faience jar (fr.) bowl sherds potsherds (E/N)		6 jars 3 bowls	1 mortar	
L-7**	0						2					2								
L-8	0						1	1 ivory jar (fr.)			1 ivory (fr.)		shell carnel- ian			1 pot potsherds			2 stone balls	

* E stands for “Egyptian”, N for “Nubian”; S-P for “Syro-Palestinian”.

** Due to the absence of pottery, Williams posits L-7 to be an animal burial. However, subsequent works (Flores 2004; Hartley 2015 and related bibliography) do not include this grave amongst animal burials. Given the doubt about the nature of this tomb, I decided to include it amongst the human burials.

N.	Bodies	Sex	Age	Copper Implements	Tools	Models	Shell hooks	Ivory/bone items	Censors	Necklaces	Bracelets	Studs	Beads	Amulets/ Pendants	Mica	Pottery	Palettes	Stone vessels	Rubbing/ grinding implements	Maces
L-9	0								2 ft.							2 bowl (N) 1 storage jar (N) 1 jar (E) 2 bowl (E) 1 S-P 5 cups 4 miniature cups 2 pots potsherds	1 pottery	3 jars 3 bowls		
L-10	2	M; N.D.	adult			1 carved wood (bovine leg?)			1							1 jar (E) 1 bowl (E) 2 bowls (N) potsherds		1 jar 1 alaba- ster jar (fr.)	1 mortar 1 pestle 1 carnelian pebble	
L-11	0				“in- cised piece of stone” (?)	1 food model (earth/ clay) 1 hippo foot (pot- tery) 1 eye inlay	9	1 ivory stick (fr.) ivory (fr.) 2 bone handles	1 “Ar- chaic Horus” 1 in- cised 1				19 car- nelian gold garnet 4 crys- tal		fr.	10 minia- ture cups 4 bowls 7 bowls (E) 6 jars (E) 8 pots potsherds (E/N)		7 bowls 1 bowl base 15 jars alabaster (fr.)	1 carnelian pebble 1 mortar (fr.) 4 pestles pebbles	1 head (fr.)
L-12	2	M?; N.D.	adult child								1 ivory (fr.)					potsherds				
L-13	0						13						shells 2 beads (?)			5 bowls (N) 3 bowls (E) 3 jars (E) (fr.) Potsherds (E/N)		1 jar	1 carnelian pebble	
L-14	1	F	adult				2		1		1 ivory (fr.)	3					1 am- ethyst		1 carnelian pebble	
L-15	2	M; F	adult adult	1 tray							10 shell (fr.)		1 quartz/ agate			5 storage jars (E) 1 jar (E) 1 cup 1 bowl	1	1 double jar 3 bowls 1 bowl (N) 1 jar	pebbles	

N.	Bodies	Sex	Age	Copper implements	Tools	Models	Shell hooks	Ivory/bone items	Censors	Necklaces	Bracelets	Studs	Beads	Amulets/ Pendants	Mica	Pottery	Palettes	Stone vessels	Rubbing/ grinding implements	Maces
L-16	0				1 pot-stand				1 calcite (?)		1 ivory (fr.)					4 bowls (E) 1 miniature cup				
L-17	1	N.D.	adult	1 awl 3 rings			1673	1 ivory spoon 2 points 1 ivory seal		2 shell 1 gold	1 gold 31 shell 15 ivory	2642 plugs 128	nerita shell 741 carnelian 313 garnet 231 shell	3 bag-shaped shell 3 carnelian (globular) 2 carnelian (cone) 1 gold fly		1 storage jar (E) 2 storage jars 1 strainer jar (E) 8 bowls 2 cups 1 miniature cup 1 boat (?)	4	6 jar 2 bowl	Pebbles 1 mortar 1 pestle 1 green pebble	
L-18	1	F	adult													1 bowl (E) 1 strainer (E) (fr.) 5 miniature cups 1 jar (N) 1 jar (E) 1 double jar 1 tricorner boat 5 bowls (E) 7 pots 1 cookpot 1 sherd (S-P) potsherds (E/N)				
L-19	0			1 awl fragments	3 pot-stands	1 "piece of open tile" (?) 1 hippo head (terracotta)	4	2 burnt ivory (fr.) 1 ivory casket 1 ivory leg 1 ivory pin (fr.) 2 ivory jars (fr.) 1 ivory cup (fr.) 1 ivory inlay	2 incised 1 blackened (?) 2 fr.		2 ivory 1 ivory (fr.)		7 carnelian shells		7 fr.		1 amethyst 1 fr.	alabaster fr. 6 bowls 2 jars 1 porphyry jar	3 pestles pebbles 7 polished pebbles	
L-21	0						fr.													
L-22	1	M?	adult				6	1 ivory hook (fr.) 2+ ivory fr.	1 decorated 1 fr.				4 shell 4 carnelian 3 amethyst 1 "long" 1 "white"			1 flask (E) 1 faience miniature cups 1 saucer (E) 1 pot 1 jar (N) 1 jar (E) (fr.) potsherds	2	3 jars 2 bowls 1 bowl base alabaster fr.	6 pestles 3 pebbles Polished pebbles	

N.	Bodies	Sex	Age	Copper implements	Tools	Models	Shell hooks	Ivory/bone items	Censers	Necklaces	Bracelets	Studs	Beads	Amulets/ Pendants	Mica	Pottery	Palettes	Stone vessels	Rubbing/ grinding implements	Maces
L-23	0				3 pot-stands	26 tokens (clay) 1 hippo head spout 1 game-board (alabaster)	3						3 shell 1 carnelian 1 gold			22 storage jars (E) 1 miniature cup 2 bowls 1 bowl (E) 1 pot potsherds	1 (fr.) 1 with feet 1 quartzite 5	4 jars (S-P) 1 jar (S-P) alabaster (fr.)	1 flint blade	
L-24	1? N.D.	N.D.	N.D.	1 finial 1 spearhead 1 bed inlay	4 pot-stands	14 gaming balls (carnelian, faience, amethyst, b/w stone) 1 token 1 stone inlay 1 game-board (lime-stone) ochreous clay 1 hippo ear (terracotta)	1	1 bone ring 3+ ivory gaming pieces	1 lime-stone 2 1 fr.				87 garnet 2 crystals 252 faience 7 globular 307 carnelian 1 gold	2 carnelian (fr.) 1 hippo (miniature)		2 jars (E) 1 storage jar (E) 2 jugs (S-P) 5 bowls (E) 2 bottles (E) 6 miniature cups 3 pots Potsherds (E/N/S-P)	2 3 quartz	1 vessel ("unusual form") 1 jar 1 bowl sherds	1 carnelian pebble 2 mortars pebbles sandstone fr. 5 pestles 2 quartz pebbles	1 head
L-28	0				pot-stand (fr.)														1 polished pebble	
L-29	0																	1 vessel	pebbles 1 mortar (fr.)	

N.	Bodies	Sex	Age	Copper implements	Tools	Models	Shell hooks	Ivory/bone items	Censors	Necklaces	Bracelets	Studs	Beads	Amulets/ Pendants	Mica	Pottery	Palettes	Stone vessels	Rubbing/ grinding implements	Maces
L-30	0								1							1 pot/bowl potsherds (E/N)		3 jars 1 bowl 1 vessel 1 base	1 quartzite pestle	
L-31	2	F; N.D.	adult child					scattered animal bones								1 bowl 1 jar potsherds		1 bowl (?) 6 bowls*** 1 jar***		
L-32	0							8 bone awls								1 ladle				

Table elaborated basing on Seele's excavation report and Williams' publication of Cemetery L (Seele 1984; Williams 1986: 198-388).
*** The six bowls and the jar were found in two unnumbered and unlocated shafts, west of L-31. According to Williams, it is plausible that the objects originally were part of the funerary equipment of tomb L-31.