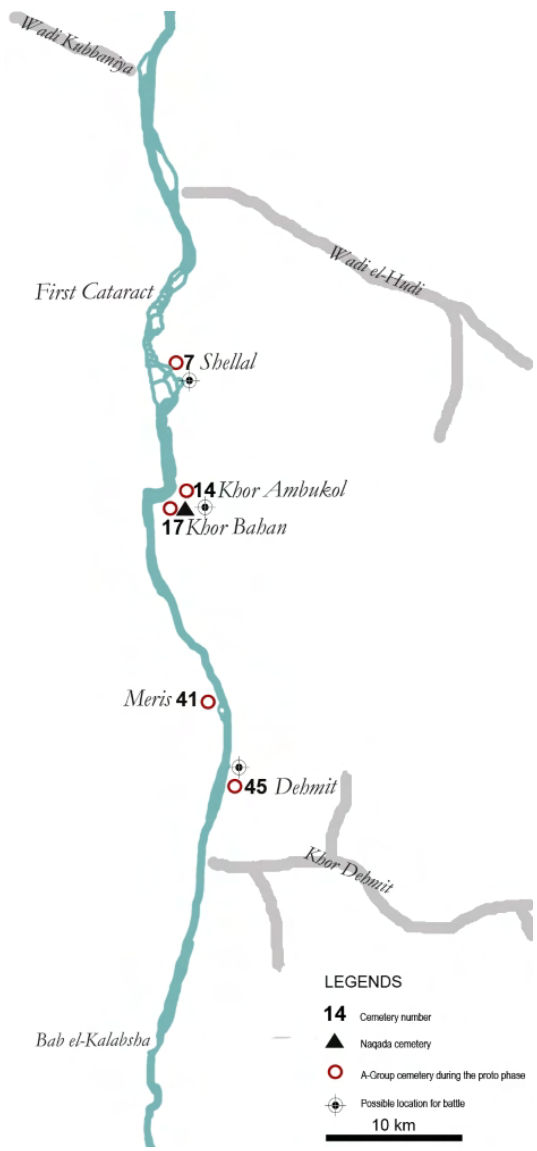


article/ *The Role of Warfare and Headhunting in Forming Ethnic Identity: Violent Clashes between A-Group and Naqada Peoples in Lower Nubia (mid-4th millennium BCE)*

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abstract/ This article reassesses the earliest cemeteries dating to the 4th millennium BCE in northern Lower Nubia. Remains from two cultural groups have been found in the region - native predecessors of the A-Group people and Naqada people arriving from Upper Egypt. The evidence presented suggests that Naqada people from the chiefdom at Hierakonpolis conducted a violent expansion into Lower Nubia in the mid-4th millennium BCE. The violent encounters with the natives are testified through evidence of interpersonal violence in five cemeteries of the predecessors of the A-Group people, young males buried with weapons in a Naqada cemetery in A-Group territory, and a settlement pattern shifting southwards. The author argues that the violence led to an ethnogenesis among the native population of northern Lower Nubia, and the ethnic boundary between the two groups became even more defined through headhunting provoking a schismogenesis. This case study provides new insights into warfare in ancient Nubia and an opportunity to discuss ethnic identity, ethnogenesis, and schismogenesis in the Nile Valley at the beginning of the Bronze Age.

keywords/ Warfare, ethnicity, headhunting, schismogenesis, Early Bronze Age, Nubia, Egypt



Map 1. Northern Lower Nubia with sites dating to the mid-4th millenium BCE.
 Graphic: Henriette Hafsaas.

1. Introduction

Lower Nubia in today’s southern Egypt has been studied by archaeologists since the beginning of the 20th century. Yet, the collective self-awareness and group identity of the people inhabiting the northernmost part of Lower Nubia in the 4th millennium BCE is still elusive. In this article, I will argue that the region from the First Cataract to Bab el-Kalabsha was the setting of violent encounters between peoples who increasingly came to view each other as culturally different during the mid-4th millennium BCE. I will demonstrate that the predecessors of the A-Group people were attacked by a band of Naqada warriors from Hierakonpolis in several deadly clashes that ultimately drove the A-Group predecessors south of Bab el-Kalabsha while Naqada peoples settled in the area between Bab el-Kalabsha and the First Cataract (Map 1).

The evidence for the violent expansion is interpersonal violence leading to deaths and injuries among the A-Group predecessors, young males belonging to the Naqada people buried with weapons in a cemetery of the A-Group predecessors, and a shifting settlement pattern with the A-Group predecessors retreating southwards as the Naqada people expanded into their territory. I will argue that the formation of the ethnic identity of the A-Group people was an ethnogenesis,¹ as the distinctive material culture of the A-Group people became archaeologically visible around the middle of the 4th millennium BCE (Table 1).²

A-Group phases		Contemporary Egyptian phases	Years BCE (calibrated)
Southern Lower Nubia	Northern Lower Nubia		
Terminal Abkan	Early proto-phase	Naqada IA-IB	3750-3650
	Late proto-phase	Naqada IC-IIA	3650-3530
Early phase		Naqada IIB-IIC	3530-3425
Middle phase		Naqada IID1-IIIA2	3425-3200
Early terminal phase		Naqada IIIB	3200-3085
Late terminal phase		Naqada IIIC1	3085-3000

Table 1. Chronology for the A-Group people including cross-dating with Egypt.

After the first violent clashes near the First Cataract, headhunting appears to become part of the warfare practices as the Naqada people continued their expansion southwards. Headhunting probably affected the consolidation of ethnic identities among the A-Group and Naqada peoples, and the practice

contributed to defining an ethnic boundary between the two ethnic groups in a process of schismogenesis.

The topic of this article is ethnogenesis, and especially how conflicts and competition affected the formation of ethnic identity. Ethnogenesis is a dynamic process where continuity and change are encompassed in forging a new ethnic identity.³ The ethnogenesis among the A-Group predecessors was enhanced in a process of schismogenesis, which made the A-group and Naqada peoples diverge further from each other. Schismogenesis is a process of differentiation first described by Gregory Bateson⁴ and recently expanded upon by David Wengrow and David Graeber.⁵ Ethnogenesis and schismogenesis are related concepts of identity formation through intercultural contact, but schismogenesis more specifically refers to the process where two groups of people who already are different diverge further due to interaction with each other.

The geographical focus in this article is limited to the region between the First Cataract and Bab el-Kalabsha, which I will refer to as northern Lower Nubia. *Bab el-Kalabsha* means ‘Gate of Kalabsha’ in Arabic. The toponym is descriptive as granite cliffs constricted the river to a width of only 220 metres, making this one of the narrowest passages of the Nile (Figure 1), while rocks and shoals broke the flow of the water.⁶ The rising cliffs of Bab el-Kalabsha were thus a distinctive geographical marker, and a position for exercising territorial control.



Figure 1. The landscape at Bab el-Kalabsha. Painting by Edward Lear (1871). Public domain, downloaded from Artvee.com.

For more than a century, scholars have overlooked the instances of violent injuries and lethal weapons in the cemeteries in northern Lower Nubia dating to the mid-4th millennium BCE.⁷ The omission of this evidence has limited our understanding of the role of warfare in the formation of an ethnic boundary through processes of ethnogenesis and schismogenesis. Furthermore, a warfare perspective will provide new knowledge on violent practices in the Nile Valley at the beginning of the Bronze Age and the emergence of the A-Group people as an ethnic group in the mid-4th millennium BCE.

2. Background

The core area of ancient Egypt was the lower reaches of the Nile, where the river flows like an elongated oasis through the Sahara. Travelling from the north, the islands and rapids of the First Cataract formed the first serious obstacle to riverine navigation. To the south of the First Cataract, the landscape is different. This is Nubia. The floodplain is narrower resulting in less fertile land. Six cataracts with granite boulders and treacherous rapids make travelling more difficult on water and over land along the Nubian stretch of the Nile. Furthermore, the cataracts divide Nubia into several smaller regions where the northern part of Lower Nubia is the closest southern neighbour of ancient Egypt.

Around 4000 BCE, people in Upper Egypt adopted agriculture as the main form of food production.⁸ New forms of a shared material culture emerged from around 3750 BCE, although regionality was still present.⁹ The transition to food production was followed by the gradual emergence of centralized forms of political organization, and three chiefdoms appeared around 3650 BCE.¹⁰ The political centralization culminated with the formation of the territorial state of dynastic Egypt around 3085 BCE.¹¹ The time span from ca. 3750 to 3085 BCE is termed the Naqada period in Upper Egypt (see Table 1).¹² I will call the population in Upper Egypt during this epoch for *the Naqada people* to signal their cultural unity and increasing communal self-awareness.¹³

In the latter half of the 4th millennium BCE, Lower Nubia was inhabited by the so-called A-Group people.¹⁴ Before the inhabitants of Lower Nubia came into more frequent contact with the Naqada people during the Early A-Group phase,¹⁵ the predecessors of the A-Group people in northern Lower Nubia appear less conscious about displaying a collective identity through material culture.

Nevertheless, the A-Group predecessors had a distinctive tradition of pottery making, and they appear to have shared beliefs about death and practiced similar burial rituals. In contrast to the agricultural Naqada people, these A-Group predecessors probably maintained a pastoral way of life in continuation of the traditions encompassing the Nile Valley in the 5th millennium BCE.¹⁶ Although both groups inhabited quite similar ecological environments along the Nile, the differences in modes of food production suggest that the daily tasks of the people living in northern Lower Nubia was different from that of the Naqada people in Upper Egypt.

Archaeologists have diverging interpretations of the collective identity of the people living on the banks of the 130 kilometers long stretch of the Nile from Bab el-Kalabsha in Lower Nubia to Gebel es-Silsila in Upper Egypt during the 4th millennium BCE. Some scholars suggest an expansion of Naqada settlements or colonies into northern Lower Nubia.¹⁷ Others consider all sites in Lower Nubia and north to Kubbania¹⁸ or Gebel es-Silsila in Upper Egypt to belong to the A-Group people.¹⁹ Maria Gatto has fronted a third explanation and suggests a hybrid identity or entanglement of Naqada and A-Group identities in the region north of the First Cataract.²⁰ In an elaboration of these positions, I argue that an ethnic boundary was established between the two groups in northern Lower Nubia. This boundary was a social construction, and the distribution of sites changed over time as the Naqada people expanded and the A-Group people retreated southwards. Both peoples inhabited northern Lower Nubia, but their sites were not contemporary.²¹ This blend of sites has given rise to the opposing conclusions based on the difficulty in drawing a border. Inconsistencies also exist in how collective identities are perceived among archaeologists working in the Nile Valley, so I will explain how ethnic identity will be understood in this study.

3. Ethnic Identities, Groups, and Boundaries

Ethnic identities seem to become more pronounced from the beginning of the Bronze Age. This development has been linked to the formation of more complex societies.²² The political communities engaged in wars against each other during the Bronze Age were often ethnic groups, so warfare studies focusing on this period need to consider ethnicity. In historically particular circumstances, war could be crucial for constructing and modifying ethnic identities, and warfare could also be responsible for the disappearance of ethnic groups.²³

Siân Jones has formulated a renowned definition of ethnic groups by combining subjectivist and objectivist perspectives on ethnicity. Accordingly, ethnic groups are based on mutual perceptions of cultural differences between groups that are interacting or co-existing.²⁴ The subjectivist approach to ethnicity is attributed to Fredrik Barth. He criticized the understanding of ethnic groups as comparable to the outdated equation between race, culture, and language. Barth emphasized self-ascription as fundamental for the forging of ethnic identity.²⁵ However, ethnic identification is also dependent on ascription by others since ethnicity will only make an organizational difference if the ethnic identity is recognized by others and they act on this difference.²⁶ Furthermore, Barth argued for shifting the focus of research away from differences between cultures and their historical boundaries. Instead, scholars should address the processes involved in forming and maintaining ethnic identities and upholding ethnic boundaries despite interaction.²⁷ This perspective can also be seen as a critique against culture-historical approaches in archaeology.²⁸

Since Barth's seminal article, ethnicity is generally understood as an aspect of social relationships between people who perceive themselves as culturally different from each other in contact situations,²⁹ such as exchange relationships and inter-group competition. The cultural characteristics that symbolize the ethnic identity remain unexplained in subjective perspectives, where ethnic identities are seen as fluid and situational.³⁰ The subjective approach can thus be complemented by an objective perspective incorporating the cultural contexts and social structures in which ethnic groups interact. G. Carter Bentley applied Pierre Bourdieu's concept of habitus for explaining ethnicity.³¹ Habitus is a "system of durable, transposable dispositions" that characterize life in a particular environment.³² In this way, habitus can provide an objective grounding for the subjective construction of ethnic identity.³³ The structural dispositions of habitus permeate the cultural practices and social relations typical for a distinct lifestyle,³⁴ and habitus is thus a factor in forging ethnic identities.³⁵ A relevant example of habitus for archaeologists is "ethnically specific suites of motor habits" that develop with intentional and intensive training, such as pottery making.³⁶

Ethnic identities of past peoples can leave traces in the archaeological record through obvious signs used intentionally to exhibit ethnic identity through material culture.³⁷ More subtle remains can materialize through habitus as culturally structured practices.³⁸ Ian Hodder has demonstrated through

ethnoarchaeological fieldwork in Baringo (Kenya) that people actively maintain certain forms of material culture as expressions of ethnic identity, while other forms of material culture cross-cut ethnic boundaries.³⁹ Objects that cross ethnic boundaries can be explained as foreign goods imported into the assemblage of an ethnic group from another group through trade, intermarriage, or raiding. The archaeological identification of an ethnic group becomes more convincing if the association between material culture and ethnic identity is based on a careful contextual analysis of a combination of objects and practices in multiple categories,⁴⁰ although the remains of a site are rarely monocultural due to intercultural interaction. Contact with “others” is after all a prerogative for ethnicity.⁴¹

4. Ethnic Identity in Lower Nubia

I have previously examined the ethnic identity of the people inhabiting Lower Nubia in the 4th millennium BCE through a contextual approach. When the material culture and cultural practices were corresponding across several categories and at several sites, then the similar sites were most probably made by a group of people with a collective identity. For Lower Nubia in the latter part of the 4th millennium BCE, I propose that this group identity was ethnicity.⁴² The ethnonym that this group used for themselves is unknown to us, but their land was called “Ta-Sety” – *Land of the Bow* – according to Egyptian inscriptions from the beginning of the First Dynasty.⁴³ The geographical distribution of pottery vessels, cosmetic palettes, and burial positions in Lower Nubia in the latter half of the 4th millennium BCE shows that Naqada traditions were prevalent north of Bab el-Kalabsha, while A-Group traditions dominated south of Bab el-Kalabsha. These results combined with less widespread grave goods give us a probable distribution of the two ethnic groups in Lower Nubia.⁴⁴ I thus try to overcome the reduction of ethnic identity to techniques for manufacturing and decorating pottery.⁴⁵ The aim is to bring the actors behind the material culture to the foreground. The interpretation of cultural differences as manifesting ethnic identity for the A-Group and Naqada peoples is strengthened by later expressions of ethnic differences between peoples in Nubia and Egypt in written sources.⁴⁶ I thus propose an ethnic boundary between the A-Group people and the Naqada people in the latter half of the 4th millennium BCE.⁴⁷ This boundary was social, and people and objects could cross the border. Still, the ethnic boundary probably also reflected ideas of territoriality, and Bab el-Kalabsha

seems to be the location of the border. The situation was different earlier in the 4th millennium BCE, as we will see in the next section.

5. The A-Group Predecessors in Northern Lower Nubia

According to David Wengrow, funerary rites were remarkably similar in the Nile Valley from the confluence of the Blue and White Niles to Middle Egypt during the 5th millennium BCE. Deceased individuals were placed in contracted positions on their sides, and often accompanied by portable objects related to the decoration and ornamentation of the body – especially the skin and hair. This uniformity suggests a widespread and consistent set of beliefs and practices connected with a pastoral way of life, which fostered a mobile, body-centred habitus. Among the body-related objects were combs for the hair and cosmetic palettes used for grinding pigments for painting the skin.⁴⁸ A coherent cultural group in Lower Nubia is difficult to distinguish at the beginning of the 4th millennium BCE.⁴⁹ The area was thinly populated and other collective identities than ethnicity probably prevailed, such as corporate lineage groups.

Harry S. Smith realized that the sites in northern Lower Nubia initially termed ‘B-Group’⁵⁰ actually constituted the earliest A-Group phase.⁵¹ He later dated these graves more accurately as contemporary with Naqada I in Upper Egypt.⁵² After reassessing the excavation reports from these B-Group sites, I agree with the dating presented by Smith, in accordance with other scholars.⁵³ The material culture and cultural practices at these sites resemble the A-Group people more than the Naqada people, and these peoples were likely the direct forebearers of the A-Group people. I have therefore termed this earliest phase for *the proto-phase of the A-Group* (see Table 1).⁵⁴

The earliest cemetery dating to the 4th millennium BCE in northern Lower Nubia has been identified as the graves on the south-eastern knolls of Cemetery 7 at Shellal – the widest plain and thus most attractive habitat in the First Cataract region.⁵⁵ Between Shellal and Bab el-Kalabsha, four other sites originally attributed to the B-Group by Reisner belong to the proto-phase of the A-Group people.⁵⁶ I will briefly describe these proto-phase sites.

5.1. Cemetery 7 at Shellal

The earliest graves in Cemetery 7, which spanned several periods, consisted of 50 human and nine animal burials. These earliest graves at Shellal were placed higher in the terrain than the later cemeteries of the plain. The deceased were buried in a contracted position. Out of 29 individuals with recorded burial position, 62 per cent were placed on the left side. The orientation of the head appears random. The individuals in the graves were often covered by goat skins or mats.⁵⁷

Small spiral shells were used as personal decoration – often as necklaces – in 17 graves.⁵⁸ Most of the pots found at the site were similar in shape to the A-Group pottery tradition, but no types were distinctive of its later phases, such as rippled or eggshell wares.⁵⁹ A fragment of a white cross-lined pot of the Naqada people was found in the debris and indicates a Naqada IA date.⁶⁰ Seven out of twelve palettes were made of various unidentified hard stones in the cultural traditions of the Neolithic in Upper Nubia and Central Sudan,⁶¹ as well as in the later A-Group phases. The other five palettes were made of grey-green siltstone. The only known quarry for siltstone used for palettes is Wadi Hammamat, midway between the Nile Valley and the Red Sea in Upper Egypt.⁶² The palette shapes were described as rough, irregular, oval, oblong, and ovoid,⁶³ which fit a Naqada I date.

In Cemetery 7, four weapons or tool-weapons were found in three graves – two maces and two ground stone axes (Figure 2). The mace-heads were of the disc-shaped type and made of black and white speckled stone. The shape is similar to the disc-shaped maces of Neolithic Sudan.⁶⁴ Maces were specialized striking weapons, while ground stone axes could have been used as both weapons and tools. However, the size of these stone axes, with lengths of ca. 8 and 10 centimetres respectively, suggests that they could have been effective as weapons.

The few Naqada objects found at the site suggest that the cemetery was used contemporary with Naqada I.

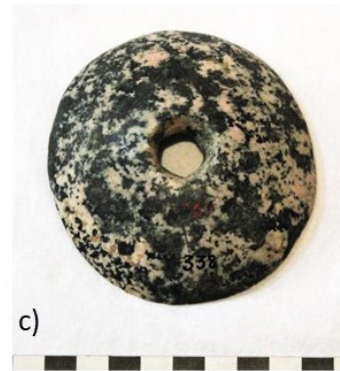
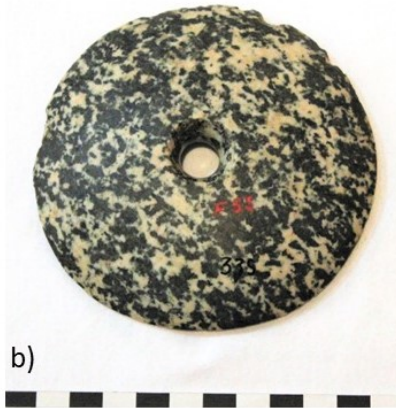
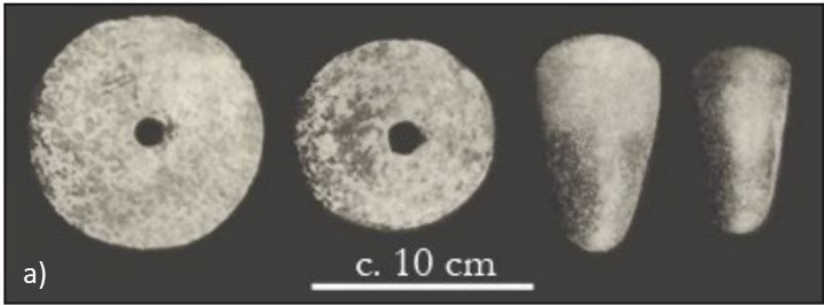


Figure 2: a) The mace-heads and axe-heads uncovered in Cemetery 7. From the left: grave 229, grave 230, grave 230, and grave 234. Photo from Reisner, *The Archaeological Survey of Nubia*, plate 63/d. b) The disc-shaped mace-head from grave 229 at Cemetery 7. Photo by Alexandros Tsakos. Courtesy of Nubia Museum, Aswan. c) The disc-shaped mace-head from grave 230. Photo by Alexandros Tsakos. Courtesy of Nubia Museum, Aswan.

5.2. Cemetery 14 at Khor Ambukol

Cemetery 14 with 23 human burials was located on the east bank at Khor Ambukol – ca. 9 kilometers upstream from Cemetery 7 at Shellal. The burial position was preserved for seventeen bodies, with 47 per cent placed contracted on the left side and the remaining on the right side. The orientation of the head appears random. The deceased were usually placed on matting and almost always accompanied by sewed leather.⁶⁵ I have previously noticed a segregation

between females and males in this cemetery. The females were buried in the north-eastern part of the cemetery and the males in the south-western part.⁶⁶ The identification of the biological sex was based on the examination of the human remains.⁶⁷ However, gender differentiations in the grave goods have not been identified so far,⁶⁸ but the separation of the sexes in death may suggest a gendered division of labour.⁶⁹

Only six pots were uncovered in four graves at Cemetery 14.⁷⁰ Three black-mouthed pots and two black pots with a pointed base fit the A-Group pottery repertoire.⁷¹ No pots were diagnostic for the pottery produced by the Naqada people. Furthermore, four graves contained small spiral shells. Two rectangular palettes of indeterminable stone show affiliation with the traditions of Neolithic Nubia and Central Sudan.⁷² Two rhomboidal siltstone palettes originated from Upper Egypt, and this shape was used for some of the earliest palettes.⁷³ Two ivory combs with carved animals, probably gazelles,⁷⁴ belong to the shared features of the Neolithic in the Nile Valley.⁷⁵ The finds from the cemetery are in accordance with the A-Group of the proto-phase, while two palettes from Upper Egypt suggest a date contemporary with Naqada I.

5.3. Cemetery 17 at Khor Bahan

Khor Bahan is a large khor coming down from the high desert on the east bank ca. 10 kilometers south of Shellal. The alluvial fan below the khor offered considerable fertile land,⁷⁶ and Cemetery 17 was located here (Figure 3).

I have previously argued that predecessors of the A-Group people used the highest terrace at Khor Bahan as a burial ground during the proto-phase, while the Naqada people reused the cemetery.⁷⁷ Of the ca. 100 graves on the highest terrace, 24 human burials can be attributed to the proto-phase of the A-Group. I have presented several lines of evidence for this identification in addition to pottery and palettes: goat skin wrappings, small spiral shells, tortoise-shell bracelets, and the burial of males and females in different parts of the cemetery, like at nearby Cemetery 14.⁷⁸ These graves also had a general lack of material culture from the Naqada people.⁷⁹

The bodies were placed on the left side in eight graves and on the right side in five graves, which means that 63 per cent of the deceased with preserved burial position were placed on the left side.⁸⁰ No complete pots were found in these

graves, but potsherds with a red exterior and black interior were recorded in four graves.⁸¹ The description of these pots could fit the traditions of pottery making of both the A-Group predecessors and the Naqada people. Eight cosmetic palettes were uncovered.⁸² Five palettes were made of white stone, black and white speckled stone, or other hard stones in continuation of earlier practices and in accordance with later A-Group traditions. Three palettes were made of siltstone from Upper Egypt and of shapes dating to Naqada I. Weapons were absent as grave goods in these graves.



Figure 3: Cemetery 17 at Khor Bahan on the higher terrace of the khor, to the right of the white tents. The alluvial plain was already flooded behind the Aswan Dam as the palm trees would have lined the riverbank. Photo from Reisner (1910: plate 23/b). Colorized by cutout.pro.

5.4. Cemetery 41 on the Meris Plain

Cemetery 41/200 was located on the central knoll of the Meris plain, ca. 25 kilometers south of Shellal.⁸³ A total of 37 human graves and three animal graves were excavated. The bodies with recorded burial positions were placed on the left side in 13 graves and the right side in 12 graves, which means that 52 per cent were placed on the left side. The grave goods consisted of items for personal decoration: small spiral shells, tortoise-shell bracelets, and cosmetic palettes.⁸⁴ Only two complete pots were uncovered. Unfortunately, these pots were undiagnostic and coming from unsecure contexts. Potsherds with red exteriors

and black interiors as well as black polished wares were found in several graves.⁸⁵ Red-polished wares with black interiors were used by both Naqada and A-Group peoples, but the black polished wares are closer to the A-Group pottery tradition.⁸⁶ Three of the palettes were made of siltstone and two of other stones. The Naqada objects in this cemetery consisted of three siltstone palettes with elongated rhomboidal shape and two copper needles.⁸⁷ The copper needles are probably the earliest copper objects uncovered south of the First Cataract.⁸⁸

No specialized weapons were uncovered in these graves. However, six graves contained flint blades.⁸⁹ For the bodies where the sex could be established, flint blades were found with males in four of five cases, and the flint blades were deposited singly in five of the six instances. One of these blades was also described as “broad”. These flint implements were probably used both as tools and weapons – so-called tool-weapons. I suggest that these blades were linked to masculine practices and identity,⁹⁰ since they mainly occurred with males. A comparative case comes from the contemporary Copper Age cemetery Tiszapolgár-Basatanya on the Hungarian Plain. Flint blade knives longer than seven centimeters were restricted to males in this cemetery, and archaeologists have interpreted the longest blades at Tiszapolgár-Basatanya as knives used as weapons.⁹¹

The few datable objects suggest that the site was used in the latter part of the proto-phase, contemporary with Naqada IC-IIA.

5.5. Cemetery 45 on the Dehmit Plain

Cemetery 45/200 at Shem Nishai on the plain of Dehmit was located ca. 32 kilometers south of Shellal. A total of 33 human burials were published.⁹² Of the bodies with preserved burial position, 17 bodies were placed on the left side and 12 bodies on the right side, so 59 per cent of the burials were placed on the left side. Several orientations of the head were practiced.⁹³ Goat skins covered the bodies.

Small white shells were uncovered in two graves, and two quartzite palettes were found. The excavation report describes 16 pots, so pottery vessels were more common in this cemetery than at the other A-Group sites of the proto-phase. Fourteen pots were made following A-Group traditions. A red-polished black-topped vase (Petrie’s B19a) and a coarse red bowl (Petrie’s R23a) were the only

Naqada style pots.⁹⁴ Both date within Naqada IC-IIA. The identity of the people buried in this cemetery is comparable to the other A-Group sites of the proto-phase.

5.6. Summary

Burial positions and orientations are unreliable for determining ethnic identity during the first half of the 4th millennium BCE. The standardized burial position among the Naqada people, contracted on the left side with the head to the south, was only applied from Naqada II onwards.⁹⁵ The A-Group predecessors placed the deceased contracted on either sides, like the later A-Group people, but without the head oriented to the south or southwest like the standard for the A-Group people from the early phase.⁹⁶ The positioning of the dead in the grave for both the A-Group predecessors and the Naqada people probably derived from shared features in the burial traditions along the Nile during the Neolithic.⁹⁷ Most of the pots and palettes found in the cemeteries examined here were made in accordance with the later A-Group traditions, but with a few Naqada imports. The use of animal skins and small spiral shells in these burials seems typical for the A-Group people of the proto-phase.

The imported Naqada finds suggest that the sites of the A-Group proto-phase had a chronological progression where the cemeteries were established further south with time. The A-Group predecessors apparently retreated southwards. I relate this migration to a violent expansion of Naqada people into Lower Nubia. A contemporary Naqada site in northern Lower Nubia is examined in the next section.

6. The Earliest Naqada Cemetery in Lower Nubia

Nine cemeteries in northern Lower Nubia were used by the Naqada people during the 4th millennium BCE. The dating of these sites suggests a gradual expansion southward.⁹⁸ In this article, I will only discuss the site contemporary with the proto-phase of the A-Group people. The other Naqada sites were established after the A-Group predecessors had retreated from northern Lower Nubia.⁹⁹

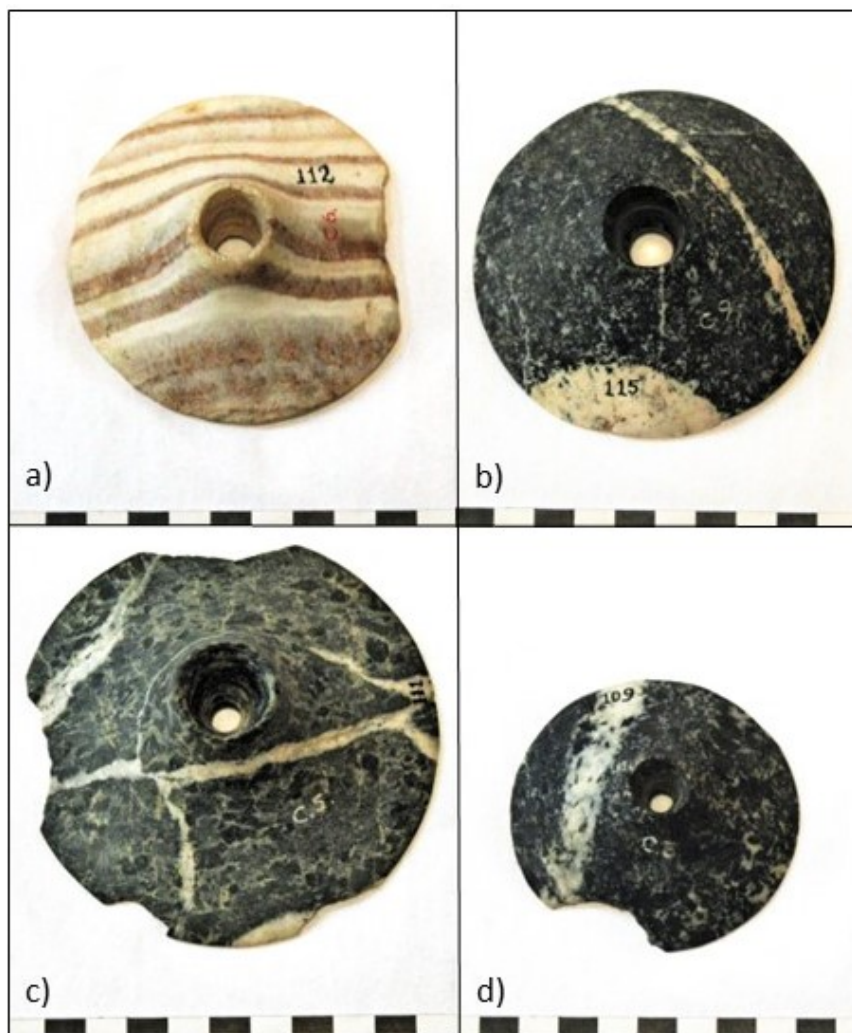


Figure 4: Some of the mace-heads uncovered in the Naqada graves in Cemetery 17. a) Mace-head from grave 89. b) Mace-head from grave 70. c) Mace-head from grave 50. D) Mace-head from grave 88. Photos by Alexandros Tsakos. Courtesy of Nubia Museum, Aswan.

6.1. Reuse of Cemetery 17 at Khor Bahan

I have previously argued that Naqada people reused the A-Group cemetery of the proto-phase at Khor Bahan. Cemetery 17 is the earliest known Naqada site south

of the First Cataract, and the site is significant in terms of warfare.¹⁰⁰

The 29 graves belonging to the Naqada people and dating to Naqada IC were placed between the two clusters of A-Group graves of the proto-phase.¹⁰¹ Of the seventeen skeletons completely or partially preserved, sixteen were males in the age range from youth to adult. Only one individual was female, and she was middle-aged. Human remains were absent in twelve graves (Appendix 1). Notably, each of the graves without human remains had an empty area intended for a body. I have proposed that these empty graves were cenotaphs for warriors whose bodies were lost on the battlefield and the burial rituals thus performed in absentia.¹⁰²

This Naqada cemetery is extraordinary regarding war since several graves contained numerous weapons. Sixteen mace-heads were uncovered in twelve graves, and other weapons were found in four graves (see Appendix 1 and Figure 4).

Weapons were thus found in 55 per cent of the graves. Other weapons uncovered were flint daggers, flint knives, flint and chalcedony blades, and various types of arrowheads. Except for the lunates, these weapons were characteristic of the Naqada people. Some of the arrowheads had their closest parallels at Hierakonpolis in southern Upper Egypt, suggesting that this was the homeland of the individuals buried in Cemetery 17 (Figure 5).



Figure 5: Arrowheads typical for Hierakonpolis found in Naqada graves in Cemetery 17 in Lower Nubia. a) Large concave-base arrowhead with long straight lobes found in grave 50. b) Three tanged arrowheads with barbs found in grave 78. Photos by Alexandros Tsakos. Courtesy of Nubia Museum in Aswan.

In the cemetery, five males were interred with a single mace, while seven graves without human remains contained eleven maces (see Appendix 1). The latter graves may have been the cenotaphs for eleven warriors whose remains were not retrieved after the battle. Weapons are rare in Naqada graves in Upper Egypt.¹⁰³ Being killed in action and buried in foreign territory was probably a context that made it necessary to provide these Naqada warriors with their weapons in the afterlife.

The predominance of male burials in this cemetery is exceptional. I suggest that the reason is that they derive from a warrior band. Warriors dispatched to fight far from the homestead would usually be males.¹⁰⁴ The anatomists recorded no pathologies or trauma in this osteological material, since they, unfortunately, concentrated their attention on racial characteristics rather than pathology and trauma.¹⁰⁵

Based on the contextual data, I have argued that Cemetery 17 was a burial ground for Naqada warriors who had made a violent expansion into the A-Group predecessors' territory.¹⁰⁶ Despite the lack of evidence for violent trauma, so many dead males is suspicious. Violence, also in war, is often the commonest cause of death for young adult males. The A-Group predecessors probably attacked the Naqada warriors with bows and arrows that would only leave microscopic traces on the bones, like the victims at Jebel Sahaba in southern Lower Nubia during the Upper Palaeolithic.¹⁰⁷ Graves of fallen warriors are usually placed close to the battlefield,¹⁰⁸ so the fighting probably happened near Khor Bahan.

In Cemetery 17, archaeologists also found 21 dogs in twelve graves. Several dogs had remains of collars and leashes.¹⁰⁹ Gnawed bone fragments were found under the ribs of these dogs, suggesting that they were sacrificed on full stomachs when their owners were buried.¹¹⁰ A parallel has come to light at the elite Cemetery HK6 at Hierakonpolis. Around the large and richly equipped tomb 16, dating to Naqada IC-IIA, was a complex of associated graves belonging to humans and animals. Among the sacrificed animals were 27 dogs, often buried together with young males.¹¹¹ The plundered graves of these young males still contained some tanged arrowheads characteristic for Hierakonpolis.¹¹² Similar tanged arrowheads were also found in Cemetery 17 (see Figure 5b). These individuals in Cemetery HK6 have thus been interpreted as hunters.¹¹³ I find it probable that

some, perhaps all, of these young males also were warriors. The difference between hunters and warriors was probably minor during the Naqada period. Both warriors and hunters were skilled in weaponry and cooperation. The chieftains in Upper Egypt probably raised, equipped, and led hunting expeditions and war parties to achieve their political ends.¹¹⁴ Indeed, the nineteen men depicted on the unprovenanced Hunters' Palette carry the same types of weapons as found in Cemetery 17 at Khor Bahan and HK6 at Hierakonpolis: maces, spears, bows and arrows, and throw sticks. Furthermore, three hunting dogs were partaking in the lion hunt together with the men (Figure 6).



Figure 6: The Hunters' Palette (BM EA 20790) depicting nineteen men and three hunting dogs in a lion hunt. Length: 30,5 cm. © The Trustees of the British Museum (CC BY-NC-SA 4.0).

Since dog burials are associated with graves of males with weapons at Khor Bahan and Hierakonpolis, I will suggest that Naqada people trained dogs to assist with hunting and warfare. Dog burials are also attested at Neolithic cemeteries in Sudan¹¹⁵ and at Cemetery 7 of the proto-phase of the A-Group,¹¹⁶ so dog burials are not exclusively a Naqada practice.

7. Evidence for Violence in the Earliest A-Group Cemeteries

The violent injuries recorded in the cemeteries of the A-Group predecessors have been categorized according to whether the bodily harm was caused by blunt

force, i.e., striking, or sharp force, i.e., stabbing/slashing/piercing.¹¹⁷ Not all injuries obtained in warfare would be deadly, although the aim of war is usually to defeat the enemies by killing or expelling them.¹¹⁸ Comparative research has demonstrated that the head is the preferred body part to attack in most societies.¹¹⁹ Preferences may vary for attacking the vault of the skull or the face.¹²⁰ Fractures to the skull are thus a well-known indication of violence.¹²¹ Moreover, blunt force trauma to the skull is more easily attested archaeologically than injuries from arrows, spears, and daggers, which often affect soft tissues.¹²² In northern Lower Nubia, several violent deaths caused by fractures to the skull after blunt force violence, probably with a mace, are attested during the mid-4th millennium BCE.¹²³ The practice of attacking the head also led to distinctive defensive injuries.¹²⁴ Fractures of the distal ulna in the lower arm can derive from fending a blow to the head. This characteristic injury is often referred to as a parry fracture – especially if the radius is unaffected and the fracture line is transverse.¹²⁵ Fractures of the middle of the clavicle can also be defensive injuries caused by avoiding blunt force violence to the head.¹²⁶

The violent injuries testified on the bones could be lethal or nonlethal. Antemortem injuries have had time to heal. Perimortem injuries have had no time to heal and occurred around the time of death and may also have been the direct cause of death.¹²⁷ Blood-stained bones sometimes testify to the perimortem infliction of the injuries.¹²⁸ Postmortem damages to the bones occur after the individual is dead.¹²⁹

Nubiologists have overlooked the data on violent injuries in northern Lower Nubia during the mid-4th millennium BCE for more than a century, although some attention has been given to the scientific value of the anatomical examinations by Sir Grafton Elliot Smith and Frederic Wood Jones in the last decades.¹³⁰ The report on the human remains from northern Lower Nubia shows ample evidence of violence in the proto-phase graves of the A-Group people.¹³¹ The evidence is overwhelming when considering that only a limited range of violent injuries cause changes on the skeleton.¹³² The study of the human remains by Elliot Smith and Wood Jones has probably been disregarded for so long because archaeologists wish to distance themselves from the racist paradigm these anatomists worked in.¹³³ Without the evidence dealing with violence, however, archaeologists have had the impression that the contact zone between peoples in Upper Egypt and Lower Nubia during the mid-4th millennium BCE was more peaceful than the violent cases I will present

suggest. In this analysis of the human remains, osteological case descriptions are only provided for individuals with evidence of healed or unhealed trauma related to interpersonal violence. Most of these injuries are unambiguous traces of violence, but I cannot rule out that some resulted from accidents.

The human remains in Cemetery 7 included two violent cases (Appendix 2). The male in grave 257 died from multiple blows to the head that fractured several bones in his face. Besides the blunt violence, a piece on the back of his skull had been cut away by a sharp weapon – probably a copper-alloy implement.¹³⁴ The female in grave 263 had a healed parry fracture of her right ulna. This fracture is a typical defensive injury.¹³⁵ The graves of both victims were on the fringe of the cemetery, and the male in grave 257 was probably the last individual to be buried in the cemetery before abandonment.¹³⁶ The male in grave 267 had a healed fracture probably unrelated to interpersonal violence.

Injuries caused by violence were also recorded at Cemetery 14 (Appendix 3). The male in grave 10 died from excessive blunt force violence to the skull, eight fractured ribs on his right side, and a fracture on the right side of the pubis. The violence had caused much bloodstaining of the bones.¹³⁷ The female in grave 13 had a perimortem fracture of a rib on the left side that had caused blood stains on the bones.¹³⁸ The injury happened at the time of her death. The female in grave 19 had a healed fracture of the left ulna just above the mid-point, which is most probably a parry fracture.¹³⁹ The male in grave 23 had a healed fracture of his right cheekbone,¹⁴⁰ which is an injury seen in assaults with blunt force violence.¹⁴¹

In the A-Group graves of the proto-phase in Cemetery 17, two individuals had antemortem fractures related to violence (Appendix 4). The male in grave 29 had fractured the distal portion of the right ulna,¹⁴² which suggests a parry fracture caused when fending a blow to the head.¹⁴³ Additionally, the mid-point of the left clavicle had a healed fracture (Figure 7a).¹⁴⁴ A direct frontal blow with a heavy device,¹⁴⁵ like a mace, could inflict this injury. Both injuries seem related to interpersonal violence and may have occurred during a single attack. The male in grave 24 also had a healed fracture of the middle of the right clavicle (Figure 7b).¹⁴⁶

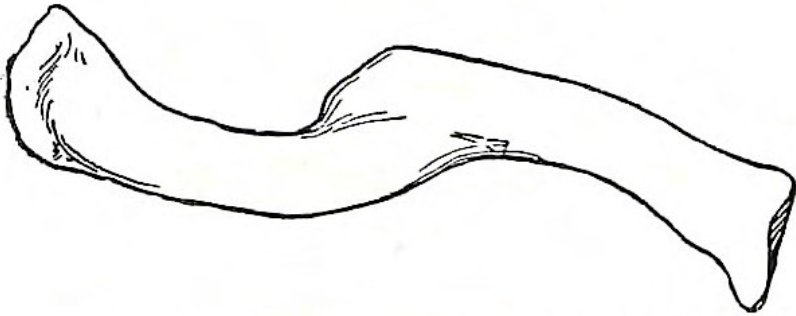


Figure 7a: Healed fracture of clavicle from proto-phase A-Group graves in Cemetery 17. Male in grave 24. No scale. Drawing from Elliot Smith and Wood Jones (1910: figure 74).

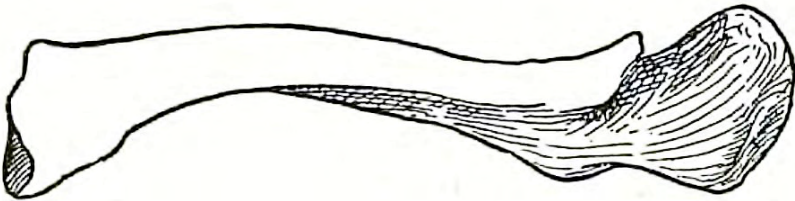


Figure 7b: Healed fracture of clavicle from proto-phase A-Group graves in Cemetery 17. Male in grave 29. No scale. Drawing from Elliot Smith and Wood Jones (1910: fig. 75).

The archaeologists recorded no injuries related to interpersonal violence at Cemetery 41/200, but the skeletal remains were fragmentary and not prioritized for detailed anatomical study (Appendix 5).¹⁴⁷

Abundant skeletal evidence for interpersonal violence was recorded at Cemetery 45 (Appendix 6). The elderly male in grave 211 appears to have been executed by having the back of his neck cut with a sharp instrument. This individual received seven incisions across the posterior surface of two of the cervical vertebrae (Figure 8).¹⁴⁸

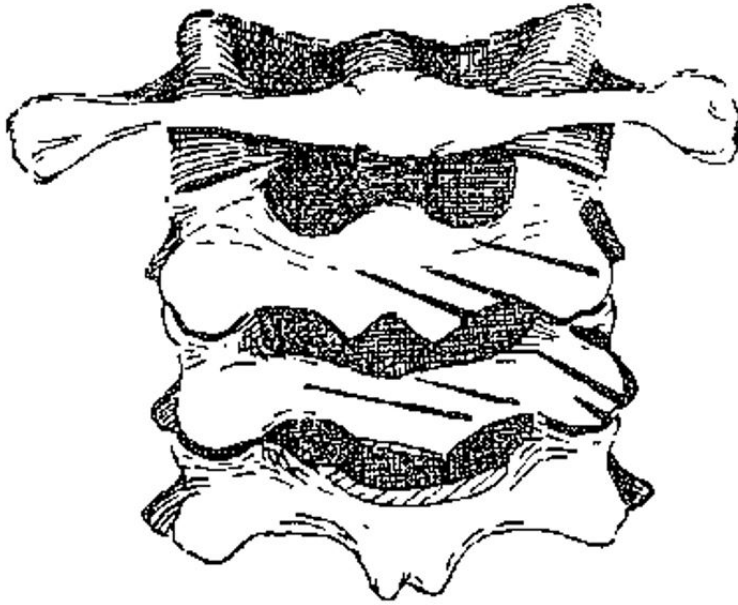


Figure 8: The male in grave 211 in Cemetery 45 had seven cut marks on his third and fourth cervical vertebrae. Drawing from Elliot Smith and Wood Jones (1910: fig. 69).

This practice of execution has in recent years been revealed on a large scale at Hierakonpolis.¹⁴⁹ The anatomists suggested that a copper-alloy weapon had been used.¹⁵⁰ The lowest cut probably caused death as it “passed into the spinal canal by cutting off the tip of the spine”.¹⁵¹ Furthermore, the male in grave 202 had perimortem injuries on the right side of his chest. Five ribs were fractured and had caused much blood-staining – especially around the nares suggesting bleeding from the nose.¹⁵² The female in grave 201 had a healed fracture through the left cheekbone,¹⁵³ which is a common injury in an assault with blunt force violence.¹⁵⁴ Individuals in grave 204 and 235 had healed fractures most likely unrelated to interpersonal violence.

7.1. Absent Skulls in the A-Group Cemeteries of the Proto-Phase

In addition to the violent deaths just described, the skull was missing from several graves in the cemeteries of the A-Group predecessors. In Cemetery 7, all skulls were present, but the skull of an adult male in grave 226 was distorted and broken. In Cemetery 14, the skull was absent from the male individuals in graves 8 and 12.¹⁵⁵ In Cemetery 17, the unsexed individual in grave 19 was missing the skull.¹⁵⁶

Cemetery 41/200 appears to have been vandalized in ancient times. The bodies were all greatly disturbed, and skulls and other body parts were missing. The male individuals in graves 227 and 238 lacked their skull.¹⁵⁷ Broken or smashed skulls were recorded in graves 205, 206, 216, 218, 219, 224, 235, and 236.¹⁵⁸ These damages to the bones occurred postmortem – possibly in acts of desecrating the corpse. Moreover, the pots seem to have been broken intentionally in this cemetery since only two were found complete. The later Naqada inhabitants of the plain possibly vandalized the cemetery of the A-Group predecessors.¹⁵⁹

In Cemetery 45/200, the skull was missing from the bodies of females in graves 204, 223, 232, and 241, and of the male in grave 228.¹⁶⁰ Furthermore, the individuals buried in graves 203, 205, 212, 217, 218, and 232 had their skulls broken postmortem.¹⁶¹ We saw above that the male in grave 211 had been stabbed in the back of his neck seven times with a sharp implement. The assault weapon was almost certainly a copper-alloy dagger or spear. The attacker probably came from Upper Egypt, since no large copper implements are known from the proto-phase of the A-Group people. Copper-alloy daggers and spears have been found in Upper Egypt in contexts dating to slightly later in the Naqada period.¹⁶²

In the human skeleton, the joint between the skull and the atlas vertebra is among the first fixtures to fall apart. Decomposition was perhaps the means through which the skulls were separated from the bodies.¹⁶³ A pattern of vandalizing the bodies through removing or crushing the head is appearing in the proto-phase cemeteries of the A-Group people in northern Lower Nubia.

7.2. Capital Punishment at Hierakonpolis

Examinations of skeletal remains at Hierakonpolis show that stabbing in the throat or full decapitations were relatively common in Cemetery HK 43 during Naqada IIA-C.¹⁶⁴ In the excavated parts of the vast cemetery, 21 individuals out of 453 had lacerated vertebrae, i.e. 4,6 per cent.¹⁶⁵ The cut marks were observed on males in 52 per cent of the cases, while 10 per cent were females. The remaining 38 per cent had unidentified sex. Most of the people killed in this way were young adults. The cut marks were found on several vertebrae, usually the second and the third. The numerous lacerations suggest “repeated blows with a lighter blade”.¹⁶⁶ Based on the available weapon technology during Naqada II, I suggest that the implements used were sharp pointed weapons like daggers or spears of copper-alloy or flint.¹⁶⁷ At Hierakonpolis, the purpose of the stabbing was to sever the neck, although complete decapitation also occurred.¹⁶⁸

The practices of decapitation and/or dismemberment in Upper Egypt are often interpreted as rites of human sacrifice, like retainer sacrifices in connection with the First Dynasty royal burials.¹⁶⁹ David Wengrow has suggested that dismembered bodies had received an alternative treatment in death when the individual had established a greater social network in life than the complete body could satisfy during the funerary rituals. Different parts of the body could then be buried in different locations and thus provide funerary ceremonies for more people.¹⁷⁰ The bodies with lacerated vertebrae in Cemetery HK43 seem incompatible with these interpretations. The individuals at Hierakonpolis were not sacrificed retainers, since elite graves were absent.¹⁷¹ Furthermore, the graves of people with lacerated vertebrae in Cemetery HK43 had hardly any grave goods, so they were not themselves belonging to an elite with a large network. The violence performed on these poor people at Hierakonpolis thus seems related to ceremonial executions of criminals, which are later attested in Egypt.¹⁷² Sean P. Dougherty and Renée Friedman indeed suggest that the people with severed necks in Cemetery HK43 had received capital punishment.¹⁷³

I propose that we consider the possibility that the bodies without heads dating to the proto-phase in northern Lower Nubia belonged to A-Group predecessors killed in action and decapitated on the battlefield.¹⁷⁴ Decapitation of prisoners of

war certainly was a later practice in Egypt, as attested in iconography such as the Narmer palette from the very beginning of the First Dynasty (Figure 9).

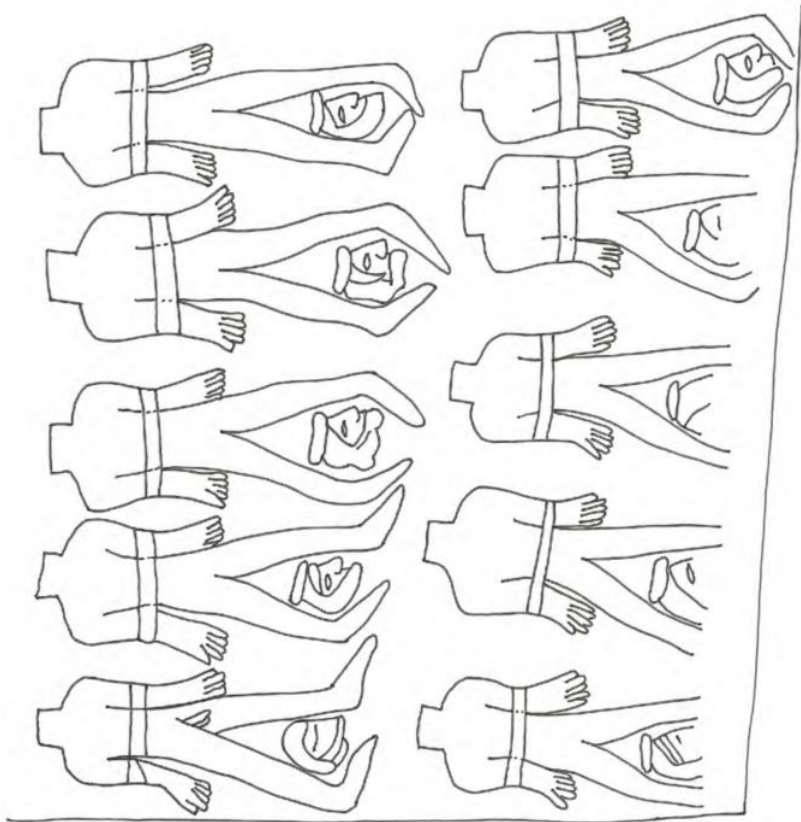


Figure 9: Detail of decapitated corpses on the obverse face of the Narmer palette (Egyptian Museum, Cairo JE 32169). Drawing by Henriette Hafsaas.

The head could also have been removed after some time of exposure on the battlefield. The Naqada people may have collected the skulls of fallen victims of violence before their kinsmen could return to bury their remains. Neither capital punishment nor dismembered and divided bodies seem likely explanations for the missing skulls in the small-scale and decentralized society of the A-Group predecessors.

7.3. Summary

The reassessment of the anatomical examination of the human remains from the five A-Group cemeteries of the proto-phase demonstrates that of the sample of preserved and examined bodies, five individuals had died of violence and another six individuals had survived a violent attack (Table 2). The sample consisted of 167 burials, and 7 per cent of the population was affected by violence attested in the osteological material. Most of the injuries seem to have been caused by blunt force violence – most probably stone maces. However, two individuals died in attacks where sharp force violence also was used – most likely copper-alloy weapons. Both males and females were injured and killed in these cemeteries (see Appendices 2-6).

Site	Number of burials	Violent deaths		Violent injuries antemortem		Absent skulls		Broken skulls		
		Number	%	Number	%	Number	%	Number	%	
Cemetery 7	50	1	2 %	2	4 %	0	-	1	2 %	
Cemetery 14	23	2	9 %	1	4 %	2	9 %	2	9 %	
Cemetery 17	24	0	-	2	7 %	1	4 %	0	-	
Cemetery 41	37	0	-	0	-	2	5 %	8	22 %	
Cemetery 45	33	2	6 %	1	3 %	4	12 %	6	18 %	
Total	Per cent	167	5	3 %	6	4 %	9	5 %	17	10 %

Table 2. Violent deaths, violent injuries antemortem, missing skulls, and broken skulls in total and in per cent in A-Group cemeteries dating to the proto-phase. Data from Appendices 2-6.

Furthermore, nine individuals appear to have been buried without their skull, and seventeen individuals were uncovered with their skull broken (see Table 2). In the sample of 167 burials, the skull was missing in 5 per cent of the graves. Additionally, 10 per cent of the burials were found with the head broken. Relevant comparative evidence from the Bronze Age is hard to find. Most cemeteries in Lower Nubia have been plundered in ancient and modern times. Furthermore, the human remains in Lower Nubia received less scientific attention after the first investigation by Elliot Smith and Wood Jones and before the UNESCO salvage campaign in the 1960s.¹⁷⁵

However, the data on violent deaths and injuries in these five cemeteries shows that a high per centage of the population was affected by violence, which is

compatible with a context of inter-group violent conflict. The frequency of interpersonal violence and missing skulls in cemeteries in Lower Nubia is difficult to assess due to both the widespread disturbances of the cemeteries and the inadequate attention given to the human remains in many cemeteries further south.

8. Discussion of the Violent Clashes between A-Group Predecessors and Naqada People

The previous sections have emphasized three main sources of evidence for war between Naqada intruders and native A-Group predecessors in the region between the First Cataract and Bab el-Kalabsha in the mid-4th millennium BCE. The most obvious evidence is the individuals killed or injured by violence in the A-Group cemeteries of the proto-phase (see Table 2). The second line of evidence is the Naqada cemetery consisting of young males with weapons at Khor Bahan. The third source of evidence is contextual with the shift in the settlement pattern as the Naqada people expanded into northern Lower Nubia and the A-Group predecessors retreated. I will now discuss how these findings can be interpreted as a historical sequence with several episodes of violence in a war between the Naqada people and the A-Group predecessors.

The Naqada people in Hierakonpolis and the A-Group people were aware of each other even before they came into closer contact in northern Lower Nubia in the mid-4th millennium BCE, since both groups sporadically used the area between the First Cataract and Gebel es-Silsila in Upper Egypt before the mid-4th millennium BCE.¹⁷⁶ Imports in the graves also demonstrate interaction. The region north of the First Cataract thus appears as the first contact zone between the two populations.¹⁷⁷ Ongoing archaeological investigations north of the First Cataract may provide further evidence for interaction between the A-Group and the Naqada peoples throughout the 4th millennium BCE.¹⁷⁸

The peoples from the nearest Naqada center at Hierakonpolis were probably responsible for the violent Naqada expansion into Lower Nubia. Hierakonpolis was the southernmost of the Predynastic centers in Upper Egypt, and the site is situated around 130 kilometers downstream from the First Cataract. During Naqada IC, Hierakonpolis had grown to a large urban settlement, and the first elite cemetery including a tomb worthy of a chieftain was established. The

developments at Hierakonpolis caused a rapid increase in the population,¹⁷⁹ as confirmed by a palaeodemographic examination of Cemetery HK43.¹⁸⁰ Archaeobotanical analyses demonstrate that the inhabitants subsisted on cereals, especially emmer wheat, supplemented with herding livestock and collecting wild plants.¹⁸¹ The flood plain was probably reaching the carrying capacity needed to sustain the growing population with the agricultural technology used at the time. Hierakonpolis needed more land, but possibilities for expansion were limited in all directions. Deserts encroached from the east and west, and the Nile Valley to the north and south was already inhabited. To the north, the Naqada people living in the Qena Bend were forming a chiefdom under the big man at Naqada. Since the A-Group predecessors lived dispersed with a decentralized organization, the chieftain of Hierakonpolis must have calculated that it was possible to conquer northern Lower Nubia by killing or displacing the inhabitants.¹⁸² Slightly before the expansion into northern Lower Nubia considered in this article, Naqada people had settled and established a cemetery at Kubbaniya between Gebel el-Silsila and the First Cataract.¹⁸³ Nubiologists often interpret the Naqada cemetery at Kubbaniya in southern Upper Egypt as an A-Group site,¹⁸⁴ but the material culture is overwhelmingly Naqadian. For instance, 31 palettes were made of siltstone, seven of other materials, and only four of quartzite.¹⁸⁵ Siltstone was the preferred material for the Naqada people, while the A-Group people used other stones – mainly white quartzite.¹⁸⁶ The fertile plain at the mouth of Wadi Kubbaniya was probably settled by Naqada people expanding southwards.¹⁸⁷ Another Naqada cemetery and settlement with potsherds dating to Naqada IC was recently discovered at Nag el-Qarmila just to the north of Wadi Kubbaniya.¹⁸⁸ We do not know if the Naqada people had to expel – violently or not – a native population before they settled in this area.¹⁸⁹

I propose that the chieftains of Hierakonpolis dispatched several warrior bands to fight the communities between the First Cataract and Bab el-Kalabsha with the purpose to incorporate this territory into the chiefdom of Hierakonpolis. The A-Group predecessors at Shellal probably faced a violent attack by the Naqada people at the beginning of Naqada IC. Two individuals in Cemetery 7 carried traces of violence on their bones (see Appendix 2). The earliest A-Group occupation in this area appears to have ended with the burial of a male killed by excessive violence. His head was hit repeatedly with weapons causing both blunt and sharp force injuries. According to both pictorial and archaeological sources,

the mace was the favoured weapon in hand-to-hand fighting in the Nile Valley during the 4th millennium BCE.¹⁹⁰ The final blow at the back of his head was delivered with a copper-alloy axe or adze. This weapon of prestigious metal signals high social status, so it was probably the leader of the warrior band who gave him the final blow. This sharp force injury is furthermore one of the earliest attested uses of copper-alloy weapons in the Nile Valley. The A-Group predecessors appear to have retreated southwards after this violent clash – probably to the vicinity of Khor Ambukol and Khor Bahan where two contemporary cemeteries are placed in proximity. These cemeteries were soon afterwards abandoned due to new violent attacks.

The Naqada peoples buried in Cemetery 17 at Khor Bahan appear so uniformly equipped with mace-heads and other weapons that they probably formed a band of warriors under central command acting on the orders of the chieftain of Hierakonpolis. Males constituted a majority of 94 per cent of the burials in this cemetery (see Appendix 1). In addition, seven graves with weapons but no body have been interpreted as cenotaphs for killed warriors.¹⁹¹ The Naqada warriors buried at Khor Bahan appear to have died young, which strongly suggests that the A-Group predecessors fiercely fought back the intruders. Outnumbered by the Naqada warriors, the A-Group predecessors probably attacked in ambushes. The preferred weapons of ambushes during the Bronze Age were bows and arrows.¹⁹² Warrior bands dispatched to foreign territory traditionally consist of men,¹⁹³ like the Naqada warriors in this study. In defensive warfare in the vicinity of habitation sites, women can participate in the fighting and thus be wounded or killed.¹⁹⁴ Females were among the killed and wounded in the cemeteries of the A-Group predecessors in this study (see Appendices 2 to 6).

Violence can contribute to formalizing group identities.¹⁹⁵ The forging of new collective identities can take the form of ethnogenesis. The A-Group predecessors needed to distinguish between friends and enemies after the Naqada people attacked them. Moreover, it became crucial to belong to a community larger than corporate lineage groups to be protected, and thus essential to be recognized visually as different from the enemy, whom the A-Group people appear to have attacked in ambushes. The ethnic identity of the A-Group people was probably established as they perceived themselves as culturally different from the Naqada people and perhaps the A-Group predecessors saw themselves as having common descent in accordance with a former lineage organization of the society.¹⁹⁶ The A-Group predecessors thus

appear to have conceived themselves as a distinctive cultural group in accordance with the definition of ethnic groups presented initially. I thus see the ethnogenesis of the A-Group predecessors from an emic perspective placing the A-Group predecessors as actors forging their own ethnic identity.¹⁹⁷ The Naqada people also treated the A-Group predecessors as culturally different, so the ethnic identity made an impact on their relationship.

Interpreted together, the evidence presented strongly suggests that the communities of native A-Group predecessors at Shellal, Khor Ambukol, and Khor Bahan at first attempted to defend their territory when the Naqada people entered the region during Naqada IC. The Naqada warriors buried in Cemetery 17 indicate that the A-Group predecessors resisted the expansion at a high cost of lives for the intruders. Despite opposition, the warriors from Hierakonpolis achieved their mission – likely because they were better organized by being trained for combat and better equipped with specialized weapons of war, and they probably outnumbered the A-Group predecessors. The first clashes ended when the native people retreated, first from Shellal and then from Khor Ambukol and Khor Bahan. The decisive battle probably took place near Khor Bahan where the Naqada warriors were buried in the cemetery recently abandoned by the A-Group predecessors. The graves of fallen warriors are usually located close to the battlefield,¹⁹⁸ and the graves without bodies suggest that not all fallen warriors were brought back to the site for burial. After the battle near Khor Bahan, the A-Group predecessors appear to have resettled on the plains of Meris and Dehmit further south.

The next clashes took place soon afterwards at Meris and Dehmit. Beside the violent deaths and injuries, I have identified a pattern where up to 12 per cent of the individuals in the cemeteries of the A-Group predecessors in northern Lower Nubia were recorded with the skull absent (see Table 2). Furthermore, up to 22 per cent of the individuals had their skull broken post-mortem. Especially cemeteries 41 and 45 have high numbers of missing and broken skulls. Archaeologists usually explain the absence of the skull in Nubia as an effect of grave plundering, and this explanation may in many instances be valid. However, the systematic pattern seen in the five cemeteries investigated here may require a different explanation for why the skull was absent or broken in so high numbers on a frontier with violent conflict.

As we saw in the examination of violence in the earliest A-Group cemeteries, a male in grave 211 in Cemetery 45/200 had been stabbed in the back of his neck seven times with a sharp implement – possibly a copper-alloy dagger or spear (see Appendix 6). A reconstruction of the violence placed the man prostrate with his face down in front of his assailant who struck him seven times. If the weapon indeed was a copper-alloy dagger or spear, as suggested from the cut marks and comparable decapitations at Hierakonpolis,¹⁹⁹ then his attacker was probably coming from Upper Egypt. Only the Naqada people had access to copper-alloy weapons at this time. By considering the context of war between the Naqada people and A-Group predecessors, the male had probably been wounded by an arrowshot or taken captive, and then finished off by the stabbing in the neck. The missing skulls in other A-Group cemeteries of the proto-phase could have been executions of wounded warriors in skirmishes with Naqada people. More in line with the evidence, the head was possibly removed postmortem after some time of decomposition on the battlefield before the body was buried by the next of kin. The removals of the heads were probably undertaken in acts of ritual violence. Postmortem violence and humiliation of the enemy is also attested in Syria in the mid-4th millennium BCE.²⁰⁰

The seizure, modification, and display of human body parts as trophies have been practiced worldwide since prehistoric times.²⁰¹ Decapitation was also practiced in Upper Egypt – even at the contemporary and neighbouring center of Hierakonpolis.²⁰² The head is considered the most prestigious trophy since the head is believed to contain the individual's spirit.²⁰³ Simon Harrison has argued that headhunting is a device to mask or deny the humanness of a chosen category of people in societies where male identity is related to hunting animals.²⁰⁴ Moreover, Harrison suggests that actors created and negotiated group boundaries and thus the groups themselves through such practices:

“[H]eads were taken not because the victims were distant strangers, but to make them distant, to generate estrangement, and ‘produce’ a category of people as enemies with whom to fight.”²⁰⁵

This quote seems analogous to the war between the Naqada people and the A-Group predecessors in northern Lower Nubia after the first clashes. Masculine

identity at Hierakonpolis appears associated with hunting and warfare during Naqada IC-IIA, and I suggest that headhunting in northern Lower Nubia was related to creating and negotiating a boundary between the A-Group predecessors and the Naqada peoples. The Naqada people needed to make the A-Group predecessors more distant to justify expelling them from their land.

The presence of competition and conflict can intensify ethnic polarization.²⁰⁶ The Naqada people and the A-Group predecessors shared cultural similarities from a Neolithic body-centred habitus, like contracted burials on the side and cosmetic palettes.²⁰⁷ Although the first violent confrontation provoked an ethnogenesis among the A-Group predecessors, the Naqada people proceeded to make them more different after the first clashes. The next process of differentiation between the A-Group and the Naqada peoples is comparable to a schismogenesis, whereby cultural groups define themselves against each other.

9. Concluding Remarks on Ethnogenesis and Schismogenesis in Lower Nubia

In this article, I have argued that two culturally related, but distinctive populations – the Naqada people and the A-Group predecessors – clashed in deadly battles in northern Lower Nubia in the mid-4th millennium BCE. Since the first violent clashes of the two groups, the people north and south of the First Cataract region came to perceive themselves as culturally different. The violent conflict arose from increased contact and intensive competition for territory and resources. This context furthermore created the social environment where the forging of an ethnic identity became necessary for the A-Group predecessors. The Naqada people also recognized the A-Group predecessors as different from themselves, and ethnicity became an organizational factor in the relationship between the two groups.

The war was instigated by a violent expansion of the Naqada people from Hierakonpolis. Several episodes of violence can be detected with probable battles at Shellal, Khor Bahan, and Dehmit. The first violent clashes at Shellal and Khor Bahan instigated the confrontational ethnogenesis of the A-Group predecessors. The conflict escalated with new violent clashes near Meris and Dehmit. Headhunting appears to have contributed to a schismogenesis by dehumanizing the other. The A-Group predecessors and the Naqada people increasingly came to

define themselves in opposition to each other, and their cultural and social differences continued to widen with time. For the latter half of the 4th millennium BCE, the A-Group people left a distinctive archaeological heritage in the region between Bab el-Kalabsha in northern Lower Nubia and Batn el-Hajar above the Second Cataract.

When the ethnic boundary was in place, the Naqada people established at least eight sites in northern Lower Nubia.²⁰⁸ The narrow passage with towering cliffs at Bab el-Kalabsha was a natural position for exercising territorial control, and the distribution of sites suggests that this was the border between A-Group and Naqada territory. During the Early A-Group phase, the A-Group people and the Naqada people started interacting in peaceful ways across the ethnic boundary.²⁰⁹ Exchange between the Naqada people and the A-Group people made it profitable to belong to the A-Group people as the whole community prospered.²¹⁰ The Naqada people retreated from northern Lower Nubia with the establishment of the southern border of the dynastic and territorial state of Egypt at the First Cataract at the shift between Naqada IIIB and IIIC around 3085 BCE.²¹¹ The A-Group people became eradicated as an ethnic group when the newly founded state of ancient Egypt undertook a violent expansion into Lower Nubia after ca. 3085 BCE.²¹²

10. Appendices

Cemetery 17: Naqada graves dating to Naqada IC					
The human remains were in an extremely disintegrated state. M = Male, F = Female, U = Mature individual with undeterminable sexual diagnosis.					
Grave	Ind.	Human remains	Sex	Age	Weapons
5	1	Disturbed	M	Adult	1 x disc-shaped macehead of black and white speckled stone 2 x flint blades 1 x possible bow of decayed wood
	2		M	Adult	
6		None			1 x disc-shaped macehead of pink limestone 2+ x flint blades 1 x chalcedony flakes set in wooden edge
7	3	Undisturbed	M	Youth	
	4		M	Adult	
10		None			
26	5	Disturbed	M	Young adult	
35	6	Fragmentary	M		1 x macehead, possibly of diorite 2 x flint blades
37	7	Fragmentary	M	Youth	
43	8	Complete	M	Adult	
49		None			2 x bifacial flint knives
50		None			1 x disc-shaped macehead of diorite (Fig. 4 c) 1 x concave base arrowhead of flint (Fig. 5 a) 1 x long flint blade 115 x lunate arrowheads of chalcedony
56	9	Fragmentary	M	Young adult	1 x double-ended macehead of breccia w/traces of handle binding 5 x bifacial flint knives
57	10	Fragmentary	U		1 x bifacial comma-shaped knife of flint 1 x blade knife of flint
58	11	Complete	M		1 x disc-shaped macehead 3 x rhomboidal flint daggers
60	12	Fragmentary	M		
61	13	Disturbed	M	Young adult	
62	14	Undisturbed	M	Youth	
68		None			1 x hexagon-shaped macehead of alabaster 2 x fishtail flint daggers 2+ x slingshots (described as stone marbles of hematite balls) 2 x decayed horns (possibly bow tips from a composite bow)
70		None			2 x disc-shaped maceheads (Fig. 4 b) 1 x rhomboidal flint dagger 2+ x lunate arrowheads of chalcedony 2+ x flint blades 2+ x slingshots (ivory tusk filled with porphyry marbles)
74	15	Fragmentary	M	Adult	2+ x chalcedony blades 2 x slingshots of breccia
78		None			2 x disc-shaped maceheads 2+ x lunate arrowheads of chalcedony 3 x barbed and tanged flint arrowheads (Fig. 5 b) 2 x decayed horns (possibly bow tips from a composite bow)
79	16	Fragmentary			
81	17	Fragmentary	M	Young adult	
82		None			
83		None			
84		None			1 x flint blade 15 x slingshots (described as manganese nodules) 2 x broken horns (possibly bow tips from a composite bow)
86	18	Undisturbed	F	Middle-aged	
88		None			1 x disc-shaped macehead of diorite (Fig. 4 d) 1 x double-ended macehead of breccia 1 x double-ended macehead of porphyry 2 x mace-handles 2 x decayed horns (possibly bow tips from a composite bow)
89	19	Disturbed	M	Adult	1 x disc-shaped macehead (Fig. 4 a)
95		None			1 x broken macehead 1 x broken flint knife

Appendix 1: Human remains and weapons in the Naqada graves in Cemetery 17. Data from Elliot Smith and Wood Jones (1910) and Reisner (1910).

Cemetery 7: Graves 200-267 of A-Group predecessors							
The anatomists noted more than 33 bodies in very fragmentary states that were not studied. Conditions of human remains not described for all cases. M = Male, F = Female, U=?Mature individual with undeterminable sexual diagnosis.							
Grave	Ind.	Human remains	Sex	Age	Antemortem injury	Perimortem injury	Skull
202	1	Fragmentary	F	Adult			
	2	Fragmentary	M	Adult			
203	3	Fragmentary	M	Adult			
204	4		M	Adult			
205	5	Undisturbed	M	Old			
206	6	Disturbed	F				
207	7	Undisturbed	F				
208	8	Undisturbed	M				
209	9	Undisturbed	F	Young adult			
	10	Undisturbed		Fetus			
210	11	Fragmentary		New born			
211	12	Fragmentary	U	Young adult			
212	13	Fragmentary	U	Young adult			
213	14	Undisturbed		Child			
214	15	Disturbed	M	Adult			
215	16	Fragmentary	F				
216	17	Fragmentary					
217	18	Fragmentary	F				
218	19	Fragmentary	M				
219	20	Fragmentary	M				
220	21	Fragmentary		Infant			
221	22	Fragmentary	M				
222	23	Undisturbed	M				
	24	Undisturbed	F				
224	25	Disturbed	F	Young adult			
226	26	Undisturbed	M	Adult			Broken
229	27	Disturbed	M				
233	28	Disturbed	M				
234	29	Undisturbed	M				
235	30	Undisturbed		Child			
236	31	Fragmentary	F	Young adult			
237	32	Fragmentary	F	Young adult			
238	33	Disturbed	F	Old			
239	34	Disturbed		Young child			
240	35	Undisturbed		Infant			
241	36	Fragmentary	M	Old			
250	37	Undisturbed	F	Adult			
251	38	Disturbed		Young child			
253	39	Fragmentary	M				
254	40	Undisturbed		Child			
257	41		M	Adult		Fractured facial bones Two fractures of mandible Cut in right parietal bone	
258	42	Disturbed		Young child			
259	43	Disturbed		Child			
260	44		U	Adult			
261	45	Fragmentary	M	Adult			
262	46	Fragmentary	U	Adult			
263	47	Undisturbed	F	Adult	R. ulna fractured		
265	48	Fragmentary	F	Adult			
266	49	Fragmentary	U	Adult			
267	50		M	Adult			

Appendix 2: Burials with human remains and osteological case descriptions for individuals with evidence of healed or unhealed trauma related to interpersonal violence in Cemetery 7. Data from Elliot Smith and Wood Jones (1910).

Cemetery 14							
Conditions of human remains not described for all cases. M = Male, F = Female, L = Left, R = Right.							
Grave	Ind.	Human remains	Sex	Age	Antemortem injury	Perimortem injury	Skull
1	1			Infant			
2	2			Infant			
3	3		F	Adult			Broken
4	4	Fragmentary	F	Adult			Broken
5	5	Disturbed	F	Adult			
6	6	Fragmentary		Child			
7	7	Fragmentary		Youth			
8	8	Fragmentary		Fetus			
	9			Child			
	10		M	Adult			Absent
9	11			Young adult			
10	12		M	Adult		Mortal injuries to r. side of face 8 fractured ribs on r. side Fracture on r. side of pubis	
12	13	Fragmentary	M	Adult			Absent
13	14		F	Adult		1 fractured rib l. side Much blood-staining	
14	15	Fragmentary	M	Adult			
	16			Fetus			
16	17		F	Aged adult			
17	18		F	Aged adult			
18	19	Fragmentary		Child			
19	20	Fragmentary	F	Aged adult	L. ulna fractured		
20	21	Fragmentary	M	Adult			
21	22			Fetus			
41	23		F	Young adult			

Appendix 3: Burials with human remains in Cemetery 14. Osteological case descriptions for individuals with evidence of trauma related to interpersonal violence and absent or broken skulls. Data from Elliot Smith and Wood Jones (1910).

Cemetery 17: Graves of the A-Group predecessors						
Conditions of human remains not described for all cases. M = Male, F = Female, U = Mature individual with undeterminable sexual diagnosis, L = left, R = right.						
Grave	Ind.	Human remains	Sex	Age	Antemortem injury	Skull
9	1	Fragmentary	M	Adult		
12	2	Disturbed	M	Adult		
13	3			New-born		
14	4			New-born		
18	5	Undisturbed	M	Adult		
19	6		U	Adult		Absent
21	7	Fragmentary				
22	8		M	Adult		
24	9		M	Adult	R. clavicle fractured	
25	10	Disturbed	F	Adult		
27	11		F	Adult		
28	12	Disturbed	F	Adult		
29	13		M	Adult	R. ulna fractured L. clavicle fractured	
30	14	Disturbed	F	Adult		
	15		F	Adult		
34	16	Disturbed	F	Adult		
48	17		M	Adult		
51	18	Disturbed	F	Adult		
55	19		F	Aged adult		
59	20			Youth		
63	21	Disturbed	M	Adult		
65	22		M	Adult		
87	23			Infant		
90	24		F	Aged adult		

Appendix 4: Burials with human remains in the A-Group predecessor part of Cemetery 17. Osteological case descriptions for individuals with evidence of trauma related to interpersonal violence and absent skull. Data from Elliot Smith and Wood Jones (1910).

Cemetery 41

The contents of the graves were in a badly damaged and extremely disintegrated state. Conditions of human remains not described for all cases. M = Male, F = Female, U = Mature individual with undeterminable sexual diagnosis.

Grave	Ind.	Human remains	Sex	Age	Skull
202	1	Fragmentary		Fetus	
203	2		M	Aged adult	
204	3	Fragmentary	M		
	4	Fragmentary	F		
205	5		M	Adult	Broken
206	6	Disturbed	F	Adult	Broken
207	7	Fragmentary	F		
208	8			Child	
209	9	Fragmentary	F	Adult	
210	10	Fragmentary	F	Adult	
212	11	Disturbed	M	Adult	
213	12		F	Young adult	
214	13	Fragmentary	F		
215	14		M	Adult	
216	15		F	Adult	Broken
217	16	Disturbed	F	Adult	
218	17	Fragmentary	M	Adult	Broken
219	18		F	Adult	Broken
220	19	Disturbed		Infant	
221	20	Disturbed	M	Adult	
222	21	Fragmentary	M	Adult	
223	22	Disturbed	M	Adult	
224	23		F	Adult	Broken
225	24	Fragmentary	U	Adult	
226	25			Infant	
227	26		M	Adult	Absent
228	27	Fragmentary		Child	
229	28	Fragmentary	F	Adult	
231	29	Fragmentary	M	Adult	
232	30	Disturbed		Infant	
233	31	Fragmentary	M	Adult	
234	32	Fragmentary			
235	33	Disturbed	M	Adult	Broken
236	34	Disturbed	F	Adult	Broken
238	35	Fragmentary	M	Adult	Absent
	36	Fragmentary	M	Adult	
239	37	Fragmentary		Child	

Appendix 5: Burials with human remains and individuals with absent or broken skulls in Cemetery 41. Data from Elliot Smith and Wood Jones (1910).

Cemetery 45							
The bodies were in a better state of preservation than the other cemeteries with some naturally mummified corpses. Conditions of human remains not described for all cases. M = Male, F = Female, L = left, R = right.							
Grave	Ind.	State	Sex	Age	Antemortem injury	Perimortem injury	Skull
201	1		F	Aged adult	Fracture of l. zygomatic process		
202	2		M	Adult		4th-8th r. ribs fractured and blood-stained. Copious blood-staining at the margins of the nose.	
203	3		F	Adult			Broken
204	4		F	Adult			Absent
205	5		F	Adult			Broken
206	6		F	Young adult			
207	7		M	Adult			
208	8		M	Adult			
209	9		F	Adult			
210	10		F	Adult			
211	10		M	Adult		Cuts on 2nd-4th cervical vertebrae	
213	11	Fragmentary	M	Adult			
	12		F	Adult			
215	13		M	Adult			
216	14		F	Adult			
217	15	Disturbed	M	Adult			Broken
218	16	Disturbed	M	Adult			Broken
219	17	Disturbed	M	Adult			
	18	Disturbed	F	Adult			
220	19	Disturbed	F	Adult			Broken
221	20	Disturbed	F	Adult			
222	21	Fragmentary	M	Adult			
223	22	Disturbed	F	Adult			Absent
227	23	Fragmentary	M	Adult			
228	24	Fragmentary	M	Adult			Absent
229	25		F	Adult			
232	26		F	Adult			Broken
233	27			Child			
235	28	Disturbed	F	Adult			
236	29			Child			
238	30	Fragmentary	M				
240	31		M	Adult			
241	32		F	Adult			Absent
	33		M				

Appendix 6: Burials with human remains in Cemetery 45. Osteological case descriptions for individuals with evidence of trauma related to interpersonal violence and absent or broken skulls. Data from Elliot Smith and Wood Jones (1910).

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Endnotes

1. For general discussions of the concept ethnogenesis, see Roosens, *Creating Ethnicity*, and Weik, “The Archaeology of Ethnogenesis.” ↵
2. Nordström divided the A-Group into three stages, Early, Classic/Middle, and Terminal, in his seminal work *Neolithic and A-Group Sites*, p. 18. ↵
3. Voss, “What’s new?” p. 656. ↵
4. Bateson, *Naven*. ↵
5. Wengrow and Graeber, “Many Seasons Ago,” p. 238. See also Graeber and Wengrow, *The Dawn of Everything*, especially Chapter 5. ↵
6. Trigger, *History and Settlement in Lower Nubia*, p. 14. ↵
7. See Nordström, *Neolithic and A-Group Sites*, p. 19 for a brief reference to the violent cases noted by Elliot Smith and Wood Jones (see below). ↵
8. Wengrow et al., “Cultural Convergence in the Neolithic of the Nile Valley,” pp. 102-3. ↵
9. Stevenson, “The Egyptian Predynastic and State Formation,” p. 431. ↵
10. Bard, “Political Economies of Predynastic Egypt and the Formation of the Early State,” p. 6 and p. 12. ↵
11. Bard, “Political Economies of Predynastic Egypt and the Formation of the Early State,” p. 1; Köhler, “Prehistoric Egypt,” p. 144; Stevenson, “The Egyptian Predynastic and State Formation,” p. 451. ↵
12. See Dee et al., “An Absolute Chronology for Early Egypt,” for absolute dates. ↵
13. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 123. ↵

14. Nordström, *Neolithic and A-Group sites*; Hafsaas-Tsakos, “Hierarchy and Heterarchy”; Roy, *The Politics of Trade*; Glück, “The Heritage of the A-Group”; Gatto, “The A-Group and 4th Millennium BCE Nubia.” ↵
15. See for instance Takamiya, “Egyptian Pottery Distribution in A-Group Cemeteries,” p. 56 for the establishment of the contact, and Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 337. ↵
16. Wengrow et al., “Cultural Convergence in the Neolithic of the Nile Valley,” p. 98; Gatto, “The A-Group and 4th Millennium BCE Nubia,” p. 129. ↵
17. Some examples from the last 20 years: Hendrickx, “Predynastic—Early Dynastic Chronology,” p. 71 and p. 76; Wengrow, *The Archaeology of Early Egypt*, p. 75; Bard, “Political Economies of Predynastic Egypt and the Formation of the Early State”; Gatto, “The A-Group and 4th Millennium BCE Nubia,” p. 127 and p. 129. ↵
18. Also spelled Kubaniya and Kubaniyeh. ↵
19. Some examples from the last 20 years: Edwards, *The Nubian past*, pp. 68-9; Nordström, “The Nubian A-Group,” p. 134; Takamiya, “Egyptian Pottery Distribution in A-Group Cemeteries,” p. 41; Friedman, “The Nubian Cemetery at Hierakonpolis,” p. 62; Török, *Between Two Worlds*, p. 35; Roy, *The Politics of Trade*, p. 49; Glück, “The Heritage of the A-Group,” p. 199; Meurer, “Nubians in Egypt from the Early Dynastic Period to the New Kingdom,” p. 290. ↵
20. Gatto, “Cultural Entanglement at the Dawn of the Egyptian History,” p. 117; Gatto, “The A-Group and 4th Millennium BCE Nubia,” p. 130. ↵
21. See also Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 336. ↵
22. Earle and Kristiansen, “Organizing Bronze Age Societies,” p. 243. ↵
23. Otto, Thrane, and Vandkilde, “Warfare and Society,” pp. 16-7. ↵
24. Jones, *The Archaeology of Ethnicity*, p. xiii. ↵
25. Barth, “Introduction,” pp. 10-1. ↵

26. Barth, "Enduring and Emerging Issues in the Analysis of Ethnicity," p. 12; Smith, "Ethnicity," p. 1. ↩
27. Barth, "Introduction," pp. 10-1. ↩
28. E.g., Smith, *Wretched Kush*, p. 14. ↩
29. Eriksen, *Ethnicity and Nationalism*, p. 12. ↩
30. Jones, *The Archaeology of Ethnicity*, p. 75 and p. 78. ↩
31. Bentley, "Ethnicity and Practice." ↩
32. Bourdieu, *Outline of a Theory of Practice*, p. 72. ↩
33. Bentley, "Ethnicity and Practice," p. 27. ↩
34. Jones, *The Archaeology of Ethnicity*, p. 120. ↩
35. Smith, *Wretched Kush*, pp. 18-9. ↩
36. Maceachern, "Scale, Style, and Cultural Variation," p. 123. ↩
37. See Barth, "Introduction," p. 14. ↩
38. Gosselain, "Materializing Identities." ↩
39. Hodder, *Symbols in Action*, p. 22 and p. 58. ↩
40. Emberling, "Ethnicity in Complex Societies," p. 318; Manzo, "Clash of Civilization on the First Cataract?," p. 103; Smith, *Wretched Kush*, p. 31; Stevenson, *The Predynastic Egyptian Cemetery of el-Gerzeh*, p. 77. ↩
41. Smith, *Wretched Kush*, p. 19. ↩
42. See Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, Chapters 8-10. ↩
43. Nordström, *Neolithic and A-Group Sites*, p. 17. ↩

44. For a more detailed analysis, see Chapter 8 in Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*. See also Gatto, “Egypt and Nubia in the 5th-4th Millennium BCE,” p. 132. ↩
45. See Matic, *Ethnic Identities in the Land of the Pharaohs*, p. 28. ↩
46. Smith, “Ethnicity.” ↩
47. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 253. ↩
48. Wengrow, “Rethinking ‘Cattle Cults’ in Early Egypt,” p. 96; Wengrow et al. “Cultural Convergence in the Neolithic of the Nile Valley,” p. 105; Haaland and Haaland, “Early Farming Societies along the Nile,” p. 548. ↩
49. Stevenson, “The Egyptian Predynastic and State Formation,” p. 432. ↩
50. In the first systematic excavations in northern Lower Nubia, George Reisner gave the different material assemblages the letters A, B, C, D and E to indicate their relative chronological sequence. The so-called A-Group and C-Group have since been used as the terms for the indigenous populations inhabiting Lower Nubia during the Bronze Age. Junker was the first archaeologist dating the B-Group graves earlier than the A-Group in *Bericht über die Grabungen der Akademie der Wissenschaften in Wien auf den Friedhöfen von El-Kubanieh-Syd*, p. 26. ↩
51. Smith, “The Nubian B-Group.” ↩
52. Smith, “The Development of the A-Group Culture in Northern Lower Nubia.” ↩
53. E.g., Gatto, “Cultural Entanglement at the Dawn of the Egyptian History,” p. 110; Raue, “Cultural Diversity of Nubia in the Later 3rd-mid 2nd Millennium BC,” p. 294. ↩
54. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 73. ↩
55. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 278. ↩

56. Smith, “The Development of the A-Group Culture in Northern Lower Nubia,” p. 98 and p. 101; Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, table 1. ↩
57. Reisner, *The Archaeological Survey of Nubia*, pp. 33-42. ↩
58. Reisner, *The Archaeological Survey of Nubia*, pp. 33-45. ↩
59. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, pp. 257-9. See also Smith, “The Development of the A-Group Culture in Northern Lower Nubia,” p. 98; Roy, *The Politics of Trade*, pp. 68-9. ↩
60. See Hendrickx, “Predynastic-Early Dynastic Chronology,” table II/1.4b. ↩
61. Usai, “Other Stone Tools,” pp. 56-7. ↩
62. Aston, Harrell, and Shaw, “Stone,” p. 57. ↩
63. Reisner, *The Archaeological Survey of Nubia*, pp. 33-8. ↩
64. Usai, “Other Stone Tools,” pp. 55-6 ↩
65. Reisner, *The Archaeological Survey of Nubia*, pp. 141-4. ↩
66. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, fig. 77. ↩
67. Elliot Smith and Wood Jones, *Report on the Human Remains*, pp. 257-62. ↩
68. See Nordström, “Gender and Social Structure in the Nubian A-Group,” for later gender differences among the A-Group people. ↩
69. See Hodgson, “Gender, Culture, and the Myth of the Patriarchal Pastoralist,” p. 10 for pastoral labor structured by gender (and age). ↩
70. Reisner, *The Archaeological Survey of Nubia*, pp. 142-4. ↩
71. Reisner, *The Archaeological Survey of Nubia*, fig. 92/1-2. ↩
72. Usai, “Other Stone Tools,” pp. 56-7. ↩
73. Stevenson, “Social Relationships in Predynastic Burials,” p. 191. ↩

74. Reisner, *The Archaeological Survey of Nubia*, p. 142, p. 144, and plate 66/b/31 and 33. ↩
75. Wengrow et al. "Cultural Convergence in the Neolithic of the Nile Valley," p. 103. ↩
76. Reisner, *The Archaeological Survey of Nubia*, pp. 113-4. ↩
77. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 269 and p. 285. ↩
78. See above. ↩
79. Hafsaas-Tsaoks, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, pp. 266-70. ↩
80. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, table 18. ↩
81. Reisner, *The Archaeological Survey of Nubia*, pp. 134-5. ↩
82. Reisner, *The Archaeological Survey of Nubia*, pp. 133-7. ↩
83. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, pp. 271-3. ↩
84. Reisner, *The Archaeological Survey of Nubia*, p. 211. ↩
85. Reisner, *The Archaeological Survey of Nubia*, pp. 211-4 and fig. 145. ↩
86. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 272. ↩
87. See Reisner, *The Archaeological Survey of Nubia*, pp. 212-3. ↩
88. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 272. ↩

89. Reisner described these flint implements as flakes. The published photos of other flint flakes identified by Reisner are in fact blades, see Reisner, *The Archaeological Survey of Nubia*, plate 62/b/1 depicting blades called flakes in the description. ↩
90. See Hafsaas-Tsakos, “Edges of Bronze and Expressions of Masculinity,” for a later example of expressions masculine in Nubia. ↩
91. Vandkilde, “Warriors and Warrior Institutions in Copper Age Europe,” p. 405. ↩
92. Elliot Smith and Wood Jones, *Report on the Human Remains*, pp. 169-73. ↩
93. Reisner, *The Archaeological Survey of Nubia*, p. 258 and pp. 262-5. ↩
94. Reisner, *The Archaeological Survey of Nubia*, fig. 212/2-5, 12. ↩
95. Stevenson, *The Predynastic Egyptian Cemetery of el-Gerzeh*, p. 145. ↩
96. Nordström, *Neolithic and A-Group Sites*, p. 130. ↩
97. Wengrow et al., “Cultural convergence in the Neolithic of the Nile Valley,” p. 105. ↩
98. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, pp. 316-7. ↩
99. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, Chapter 9. ↩
100. See Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, pp. 285-94 for more details. ↩
101. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 285. ↩
102. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 291. See also Hårde, “Funerary Rituals and Warfare in the Early Bronze Age Nitra Culture of Slovakia and Moravia,” p. 358, for a similar interpretation. ↩
103. Gilbert, *Weapons, Warriors and Warfare in Early Egypt*, p. 83. ↩

104. McMahon, "State Warfare and Pre-state Violent Conflict," p. 181 ↩
105. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 116. ↩
106. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, pp. 327-8. ↩
107. Crevecoeur et al., "New Insights on Interpersonal Violence in the Late Pleistocene Based on the Nile Valley Cemetery of Jebel Sahaba." ↩
108. McMahon, "State Warfare and Pre-state Violent Conflict," p. 181. ↩
109. Reisner, *The Archaeological Survey of Nubia*, pp. 137-9. ↩
110. Elliot Smith and Wood Jones, *Report on the Human Remains*, pp. 116-7. ↩
111. Friedman, "Hierakonpolis," pp. 38-9. ↩
112. Droux and Pieri, "Further Adventures at HK6: The 2010 Season," p. 4. ↩
113. Friedman, "Hierakonpolis," p. 39. ↩
114. Gilbert, *Weapons, Warriors and Warfare in Early Egypt*, p. 84. ↩
115. Chaix and Reinold, "Animals in Neolithic Graves." ↩
116. Reisner, *The Archaeological Survey of Nubia*, pp. 37-42. ↩
117. Elliot Smith and Wood Jones, *Report on the Human Remains*. ↩
118. Helbling, "War and Peace in Societies without Central Power," p. 115. ↩
119. Judd, "Continuity of Interpersonal Violence between Nubian Communities," p. 324 with references. ↩
120. Judd, "Trauma in the City of Kerma," pp. 46-8. ↩
121. Martin and Harrod, "Bioarchaeological Contributions to the Study of Violence," p. 121. ↩
122. McMahon, "State Warfare and Pre-state Violent Conflict," p. 182. ↩
123. Elliot Smith and Wood Jones, *Report on the Human Remains*, pp. 330-2. ↩

124. Filer, "Ancient Egypt and Nubia as a Source of Information for Cranial Injuries," p. 70. ↩
125. Judd, "Trauma in the City of Kerma," p. 46; Judd, "The Parry Problem," p. 1661; Martin and Harrod, "Bioarchaeological Contributions to the Study of Violence," p. 121. ↩
126. Robinson, "Fractures of the Clavicle in the Adult," table 3. ↩
127. Martin and Harrod, "Bioarchaeological Contributions to the Study of Violence," p. 124. ↩
128. Blood-stained bones were observed in some well-preserved human remains, see Elliot Smith and Wood Jones, *Report on the Human Remains*, pp. 329-30. However, stains from decomposed blood are usually absent in violent deaths uncovered from archaeological contexts, see Walker, "A Bioarchaeological Perspective on the History of Violence," p. 578. ↩
129. Martin and Harrod, "Bioarchaeological Contributions to the Study of Violence," p. 124. ↩
130. E.g., Molleson, "The Nubian Pathological Collection"; Filer, "Ancient Egypt and Nubia as a Source of Information for Cranial Injuries"; Judd and Redfern, "Trauma," p. 362; Cockitt et al. "Capturing a Century of Study." ↩
131. Elliot Smith and Wood Jones, *Report on the Human Remains*, pp. 331-2. ↩
132. See Martin and Harrod, "Bioarchaeological Contributions to the Study of Violence," p. 118. ↩
133. Marshall and Buzon, "Bioarchaeology in the Nile Valley." ↩
134. Elliot Smith and Wood Jones, *Report on the Human Remains*, pp. 331-2. ↩
135. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 313. ↩
136. Hafsaa-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 259. ↩
137. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 331. ↩

138. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 108. ←
139. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 312. ←
140. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 299. ←
141. Punjabi et al., “Causes and Management of Zygomatic Bone Fractures,” p. 36. ←
142. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 313 and fig. 87. ←
143. Judd, “The Parry Problem,” p. 1661. ←
144. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 305 and fig. 74. ←
145. Robinson, “Fractures of the Clavicle in the Adult,” p. 476 and table 3. ←
146. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 306 and fig. 75. ←
147. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 152. ←
148. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 301. ←
149. See below. ←
150. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 334. ←
151. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 301. ←
152. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 334. ←
153. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 299. ←
154. Punjabi et al., “Causes and Management of Zygomatic Bone Fractures,” p. 36. ←
155. Elliot Smith and Wood Jones, *Report on the Human Remains*, p. 108. ←
156. Reisner, *The Archaeological Survey of Nubia*, p. 134. ←
157. Reisner, *The Archaeological Survey of Nubia*, pp. 212-4. ←
158. Elliot Smith and Wood Jones, *Report on the Human Remains*, pp. 155-6; Reisner, *The Archaeological Survey of Nubia*, p. 213. ←

159. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 274. ↩
160. Reisner, *The Archaeological Survey of Nubia*, p. 262 and pp. 264-5 ↩
161. Elliot Smith and Wood Jones, *Report on the Human Remains*, pp. 170-3. ↩
162. Gilbert, *Weapons, Warriors and Warfare in Early Egypt*, pp. 42-3. ↩
163. McMahon, "State Warfare and Pre-state Violent Conflict," p. 182. ↩
164. Dougherty and Friedman, "Sacred or Mundane." ↩
165. Dougherty and Friedman, "Sacred or Mundane," p. 310 and p. 313. ↩
166. Dougherty and Friedman, "Sacred or Mundane," p. 316. ↩
167. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, pp. 279-80. ↩
168. Dougherty and Friedman, "Sacred or Mundane," p. 313. ↩
169. Wilkinson, *Early Dynastic Egypt*, p. 266. ↩
170. Wengrow, *The Archaeology of Early Egypt*, pp. 116-23. ↩
171. Dougherty and Friedman, "Sacred or Mundane," p. 327. ↩
172. Wilkinson, *Early Dynastic Egypt*, p. 266. ↩
173. Dougherty and Friedman, "Sacred or Mundane," p. 330. ↩
174. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 281. ↩
175. Buzon, "Bioarchaeology of Nubia," pp. 1052-3. ↩
176. Gatto, "Egypt and Nubia in the 5th-4th Millennia BCE." ↩
177. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 332. ↩
178. See Gatto, "Cultural Entanglement at the Dawn of the Egyptian History." ↩

179. Hoffman, Hamrouch, and Allen, “A Model of Urban Development for the Hierakonpolis Region,” p. 181; Haaland and Haaland, “Early Farming Societies along the Nile,” p. 546. ↩
180. Batey, *Population Dynamics in Predynastic Upper Egypt*, p. 31. ↩
181. Fahmy, “Missing Plant Macro Remains as Indicators of Plant Exploitation in Predynastic Egypt.” ↩
182. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 324. ↩
183. Junker, *Bericht über die Grabungen der Akademie der Wissenschaften in Wien auf den Friedhöfen von El-Kubanieh-Syd Winter 1910-1911*. ↩
184. E.g., Nordström, *Neolithic and A-Group Sites*, p. 28; Edwards, *The Nubian Past*, p. 70; Glück, “The Heritage of the A-Group,” p. 209. ↩
185. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 126 and n. 10. ↩
186. See above. ↩
187. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 123. ↩
188. Gatto, “Egypt and Nubia in the 5th-4th millennia BCE,” pp. 129-30. ↩
189. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 324. ↩
190. Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 325. ↩
191. See above. ↩
192. Hårde, “Funerary Rituals and Warfare in the Early Bronze Age Nitra Culture of Slovakia and Moravia,” p. 372. See also Honegger, “The Archers of Kerma,” in this volume. ↩
193. McMahon, “State Warfare and Pre-state Violent Conflict,” p. 181. ↩

194. McMahon, "State Warfare and Pre-state Violent Conflict," p. 181. ←
195. Martin and Harrod, "Bioarchaeology and Violence," p. 134. ←
196. Hafsaa-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, p. 334. ←
197. See also Smith, *Wretched Kush*, p. 16, for a general observation. ←
198. McMahon, "State Warfare and Pre-state Violent Conflict," p. 181. ←
199. See Dougherty and Friedman, "Sacred or Mundane," p. 316. ←
200. McMahon, "State Warfare and Pre-state Violent Conflict," p. 180. ←
201. Pommerening and Hendrickx, "Kopf und Schädel im Alten Ägypten." ←
202. See above. ←
203. Okumura and Siew, "An Osteological Study of Trophy Heads," p. 685. ←
204. Harrison, "Skull Trophies of the Pacific War." ←
205. Harrison, "Skull Trophies of the Pacific War," p. 831. ←
206. Smith, "Ethnicity: Constructions of Self and Other in Ancient Egypt," p. 117. ←
207. Wengrow et al., "Cultural Convergence in the Neolithic of the Nile Valley," p. 105. ←
208. Hafsaa-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, chapter 10. ←
209. Hafsaa-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, pp. 336-7. ←
210. Hafsaa-Tsakos, "Hierarchy and Heterarchy." ←
211. Seidlmayer, "Town and State in the Early Old Kingdom," pp. 112-3. ←

212. Smith, "Nubia and Egypt," p. 259; Edwards, *The Nubian Past*, p. 73; Török, *Between Two Worlds*, pp. 50-1; Hafsaas-Tsakos, *War on the Southern Frontier of the Emerging State of Ancient Egypt*, pp. 376-81. ←