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Cultural Continuity and Change in the Wake of Ancient Nubian-Egyptian Interactions

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Anthropology

by

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ABSTRACT

Cultural Continuity and Change in the Wake of Ancient Nubian-Egyptian Interactions

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Through the analysis of multiple lines of archaeological evidence, this dissertation examines the ways in which cultural identities are constructed, negotiated, and maintained in contexts of intercultural interaction and colonialism. Specifically, these processes are addressed within the Kerma period (ca. 2500-1500 BC) and the Egyptian New Kingdom (ca. 1500-1070 BC) in ancient Nubia. The sites that form the basis of this dissertation, Hannek and Abu Fatima, are located near the Third Cataract of the Nile River in what is now northern Sudan. Hannek, a settlement, was occupied during the later part of the Kerma period and into the New Kingdom. Abu Fatima, a cemetery, was in use throughout the entirety of the Kerma period, with evidence to date suggesting that its use was discontinued with the Egyptian conquest. Both sites were located within the hinterlands of the Kerma state. While substantial research has been, and continues to be, conducted at the large central polities of Kerma and Sai Island, far less work has been done in what would have been rural villages that were part of the Kerma domain. This dissertation thus contributes to an understanding of how the lived experiences of hinterland populations had lasting impacts on the ways that these groups conceptualized and expressed their cultural identities. In

addition, this research underscores the importance of addressing such questions at the community level rather than simply at a larger regional level.

The settlement at Hannek and the cemetery at Abu Fatima were systematically excavated during the 2015 and 2016 archaeological field seasons. Excavations were concluded at Hannek in 2016, while work remains ongoing at Abu Fatima. During the course of these field projects, architectural remains, construction techniques, and burial styles were documented at each site wherever present and site plans were drawn. In addition, multiple categories of artifactual evidence were collected from both sites, including ceramics, flaked stone tools, archaeofaunal and archaeobotanical remains, radiocarbon samples, and personal accouterments such as jewelry, clothing, grave goods, and other accessory items. These assemblages were then subjected to preliminary analysis and conservation techniques at the field laboratory in Sudan, followed by further quantitative, qualitative, and archaeometric analyses at various laboratories in the United States.

A strong adherence to Kerma traditions was noted at both Hannek and Abu Fatima, from the earliest part of the Kerma period and, in Hannek's case, through to the florescence of Egyptian colonialism in the region. Despite this overarching trend, however, the evidence indicates that these communities were consuming a small set of objects imported from Egypt. These objects became incorporated into existing Kerma-style practices within these rural villages. These findings suggest that Egyptian goods were selectively imported either because they had become culturally relevant within the Kerma social and cultural milieu over time, or because they afforded their owners with some degree of social capital by virtue of their association with foreign traditions. These results stand in contrast to the patterns previously documented at Kerma urban centers, and indeed at other hinterland sites that

have been investigated to date, where the onset of Egyptian colonialism corresponds with the disappearance of Kerma material culture from the archaeological record. For this reason, it is suggested that individual Kerma communities experienced disparate effects of Nubian-Egyptian interaction throughout the Nubian Bronze Age and beyond.

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A. Introduction to the dissertation

This dissertation examines the negotiation and material expressions of ancient cultural identities in hinterland communities in the wake of long-term intercultural interactions and colonial encroachment. In addressing these issues, the present research highlights the necessity of community-level analysis in archaeological investigations of identity. Studies of culture contact and social identity are certainly not new. Indeed, at least two decades of recent anthropological and sociological research has given way to examinations of the ways in which the crossing of physical and cultural boundaries creates profound and lasting impacts on conceptualizations of group membership (e.g., Jones 1997; Smith and Buzon 2014a; Stark 1998; Stone 2003). Such encounters can affect a wide range of decisions and behaviors, including modes of dress and personal adornment, cuisine, ritual practices, and the consumption of goods. These behaviors, when recreated over time and reproduced in subsequent generations, mold one's *habitus* (Bourdieu 1977, 1987) and ultimately one's social identities. Moreover, such actions put social identities on display, advertising one's place within a social group and cementing inter-and intra-group relationships.

By placing the concept of identity formation within the frameworks of practice theory and consumption, the importance of conducting community level analysis becomes clear. While it may be the case that some communities engaged in significant transformations of identity over time, it may also be the case that other communities within the same cultural group relied on the reinforcement of cultural continuity as a means of defining and asserting

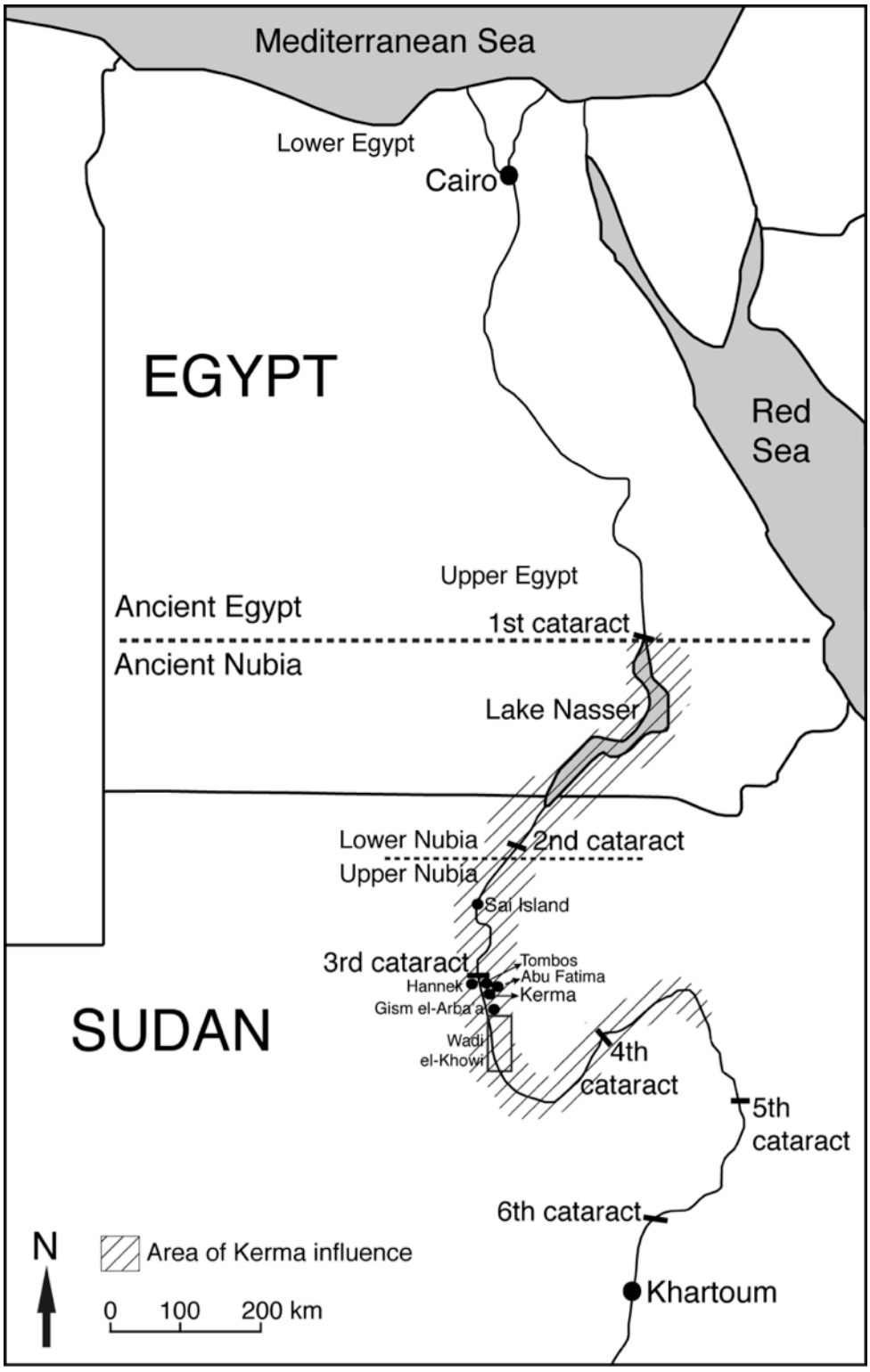


Figure 1. Map of the region discussed in this dissertation, depicting the locations of the Nile cataracts, modern cities, and ancient sites mentioned in the text (after Buzon 2011).

social identity, even during periods of sociopolitical transition. Because discrete communities are composed of different individuals with different ideas, opinions, behaviors, and desires, it should be expected that no two communities have identical trajectories of identity formation. It is for this reason that while some degree of extrapolation is useful in drawing preliminary comparisons between communities with known patterns and those with as yet unknown patterns, it is essential to view each society as its own social entity composed of individuals and factions.

Thus, when the perspectives of consumption and practice are combined with Giddens' (1984) theory of structuration, the resulting framework allows for the agency of individuals within a society. While it is true that an overarching social structure certainly governs many aspects of life, and can be highly restrictive in some contexts, it is also true that individuals, within reason, have the capacity to make decisions and act as they see fit, even in settings characterized by colonial rule. These decisions may result in overt means of identity expression, or they may lead to subtle changes in behavior patterns that have lasting impacts on daily life. Alternatively, decisions made by individuals may entail resistance to change and the reassertion of longstanding group identities. In any case, individuals within a society are far more than passive responders to changing social climates; in fact, they are active agents who determine the trajectory of their respective communities.

The transformation and performance of identities becomes especially intriguing when examined diachronically, particularly during periods of significant sociopolitical change. As Silliman (2005) has well reminded us, intercultural interactions and colonial encounters occur not as isolated episodes, but instead as long-term processes of contact. As a result, transformations of social identities tend to occur gradually, even in cases of dramatic

change. Among the social sciences, archaeology is uniquely suited to the study of diachronic change, as it allows the researcher to delve centuries—and even millennia—into the past to investigate human lifeways. Though it may be impossible to examine the psychological processes linked to identity formation in ancient societies, archaeological research allows us to evaluate the daily lived experiences of those residing in such societies—that is, their *habitus*. Moreover, the time depth inherent in archaeological contexts translates to the ability to examine the material remains of past lifeways before, during, and after social events and processes have taken place. In this way, it is possible to gain insight into how community members serve as social agents who shape the ways in which identities are conceptualized and materialized not only at a given moment in history, but also across time and physical space.

In attempting to investigate ancient identities, it is crucial to examine multiple lines of evidence, as there are multiple aspects of quotidian and ritual practice that can provide clues as to how group membership was conceptualized in antiquity. The study of foodways, architectural style and construction method, pottery style and manufacturing technique, tools, weapons, burial practices, and human remains all provide a glimpse into daily life. Each of these types of physical evidence on its own can serve to enlighten our understanding of lifeways and identities; however, it is only when taken together that the evidence for these cultural traditions can facilitate an accurate depiction of the formation and assertion of ancient social identities. It is through evidence collected during new excavations at the sites of Hannek and Abu Fatima that this dissertation examines the long history of interactions between the Egyptian and Kerman states beginning in the Nubian Bronze Age and ending with Egypt's colonial program along the Middle Nile.

B. The Present Research

This project examines how cultural identities in hinterland communities changed alongside shifting power relations as a result of long-term colonial interactions between the ancient Egyptian state and the Upper Nubian kingdom of Kerma that occurred in the formative period of the Kerma state (ca. 2500 BC) through to the Egyptian occupation of Nubia between 1502 and 1000 BC. Colonialism is a two-part process in which 1) a colonizing polity attempts to gain political, military, and/or economic control of a particular region, and 2) indigenous groups assert or reconfigure their cultural identities and traditions in opposition to foreign encroachment (Dietler 2005; Jones 2007; Silliman 2005).

Traditional approaches to colonialism in ancient societies have focused on the former, emphasizing the investigation of imperial agendas at the expense of understanding indigenous roles in colonial processes. This trend has led to three problematic assumptions about those processes: 1) that the pursuit of control is always asymmetrical in favor of a single dominant polity; 2) that colonial encounters represent a clash between two tightly bounded entities (van Dommelen 2002); and 3) that culture change is unidirectional from colonizer to colonized. Increasingly, however, scholars favor comparative perspectives that address a broader range of colonial situations. In particular, focus has shifted away from acculturation models of interaction toward an emphasis on dynamic power relations and the complexity of cultural identities (Silliman 2005; Smith 1995, 1998, 2003a; Stein 2005). The research presented here contributes to a better understanding of these issues at the sites of Hannek and Abu Fatima, located in what were once rural communities on the outskirts of the Kerma capital.

The unstable political climate in Upper Nubia between 2500 and 1000 BC suggests that there may have been marked changes over time in the conceptualizations and expressions of cultural identity among both indigenous and foreign groups living in the region. The materialization of those identities in urban centers and elite burials is becoming increasingly clear through ongoing research (e.g., D'Ercole et al. 2017; Emberling et al. 2014; Schrader 2015), but to date, only a few investigations have been made into the ways that rural dwellers manifested their identities in either domestic or funerary contexts. Thus, the objectives this dissertation are as follows: 1) to examine the extent of Egyptian presence and/or influence at the Hannek settlement, and at the Abu Fatima cemetery, during both Kerman rule and the subsequent Egyptian occupation of Upper Nubia; 2) to investigate the relative importance of local and foreign material culture in the expression of cultural identity during both before and during Egyptian occupation; and 3) to evaluate the extent to which elite/non-elite and urban/rural materializations of cultural identity within the region differed during these periods of cooperation, conflict, and change.

C. The Rise and Fall of the Kerma State

Nubia extends from the Nile River's First Cataract, located near Aswan in Egypt, to the Sixth Cataract, located just north of Khartoum, Sudan (Figure 1). Lower Nubia lies north of the Second Cataract, near the modern border between Egypt and Sudan, while Upper Nubia extends to the south of the Second Cataract. Hannek and Abu Fatima are located near the Third Cataract.

A series of competing autonomous communities in Upper Nubia merged to form a larger polity around 2500 BC, with the site of Kerma emerging as its political and administrative center. Scholars originally believed that this new political entity was organized as a simple

chiefdom. More recently, archaeological evidence has indicated that Kerma was, in reality, a formidable kingdom (Bonnet and Valbelle 2006; O'Connor 1993; Smith 1998). Kerma and Egypt developed an important trade relationship based on the exchange of prestige goods and raw materials, resulting in increased Egyptian influence and imported goods within the Kerma domain. By 2000 BC, however, the Kerma state had become so powerful that it came to be seen by its northern neighbors as a threat. Thus, Egypt established a system of forts in Lower Nubia in response to the threat of Kerman encroachment.

Kerma grew in complexity over the next few centuries, and by 1680 BC it had gained dominance over Egypt and expanded into Lower Nubia (O'Connor 1993; Török 2009), maintaining its authority there for nearly two hundred years. The power differential shifted once more in 1502 BC with the Egyptian pharaoh Thutmose I's conquest of Nubia and his subsequent implementation of a colonial program that lasted five centuries (Morkot 2001). Under Egypt's colonial rule, the Kerma centers, such as those at Sai Island and Kerma proper, largely adopted Egyptian traditions and material culture. Nevertheless, despite Kerma's ultimate defeat, the fact that it dominated the region for so long stands in stark contrast to the views of early researchers arguing that the Nubians were no match for their Egyptian counterparts (Breasted 1908; Emery 1965; Reisner 1920).

D. Hannek, Abu Fatima, and the Kerma Hinterlands

Hannek and Abu Fatima, located on opposite sides of the Nile near its Third Cataract, were situated on the outskirts of the larger Kerma domain. As hinterland communities, these and other rural villages were most certainly removed from the inner workings of the political and administrative center. However, the remoteness of such sites does not preclude their involvement in wider patterns of exchange and interaction. It is only in recent years

that we have begun to gain a more detailed understanding of the extent to which hinterland communities participated in these interactions.

It is known based on nearly a century of research (Azim 1975; Budka 2017; Gratien 1978, 1986; Reisner 1923; Vercoutter 1958) that in the urban centers at Kerma and Sai Island, Egyptian and other imports constituted only a small fraction of the overall artifact assemblages for a large portion of the Kerma period, though Egyptian influence was not unknown in these locations. We also know that eventually Kerma material culture all but disappeared from the material record in these urban locales and was ultimately replaced by Egyptian elements leading up to and following the conquest of Nubia, particularly during the period of colonial rule that constituted the Egyptian New Kingdom. In contrast, current knowledge of how these events affected hinterland communities is relatively scant. This is because only a small number of rural Kerma sites have been thoroughly investigated to date (Gratien 1997; Gratien et al. 2002; Welsby 2001). From the data collected to date, however, it appears that more variable patterns emerged in the remote parts of the Kerma kingdom, with the evidence from Hannek and Abu Fatima being no exception.

E. Structure of the Dissertation

This dissertation is organized into seven chapters, each of which examines the outcomes of long-term intercultural interaction, colonial exploits, and struggles for political control and the impacts of these processes on the negotiation and material expression of cultural identities in the Kerma hinterlands. Following this introductory chapter, I present a cultural and historical outline of Sudanese Nubia in Chapter 2, providing context for a discussion of continuity and change at Hannek and Abu Fatima. Chapter 3 addresses the theoretical framework that is employed in this research and explores the concepts of culture contact and

colonialism; identity; practice theory, structuration, and agency; and consumption and entanglement. The research objectives and hypotheses evaluated in this dissertation are also outlined in the third chapter.

Chapter 4 describes the methods used in excavating at Hannek and Abu Fatima and presents the various classes of archaeological evidence that were documented at these sites, including architecture, tools, clothing, jewelry, and other markers of cultural identity. This chapter also discusses the results of radiocarbon analysis for both sites. A brief description of previous archaeological research at the urban centers of Kerma and Sai is given in Chapter 5, along with the methods of qualitative and quantitative analyses performed on the assemblages excavated at Hannek and Abu Fatima. Chapter 6 presents the results of these analyses, concluding with a discussion of the implications of the results.

Chapter 7 discusses the outcomes of the hypothesis testing and research objectives outlined in Chapter 3, closing with an examination of the importance of community-level analysis in attempts to understand ancient identities. In the final chapter, the results of hypothesis testing presented in Chapter 7 are placed within the context of the theoretical framework detailed in Chapter 3. This discussion focuses on how patterns of consumption at Hannek and Abu Fatima affected conceptualizations of cultural identity in these hinterland communities. The concluding chapter also presents the broader impacts of this dissertation along with directions for future research.

II. The Middle Nile Valley in Cultural and Historical Perspective

A. Introduction to the Chapter

The history, archaeology, and cultures of ancient Egypt and Nubia have long fascinated the Western world. When one thinks of these societies, it is often mummies, golden treasures, and the grandeur of the pyramids that immediately spring to mind. Scholarly studies undertaken within the past century have sought to illuminate other aspects of life in ancient Egypt and Nubia, such as foodways, linguistics, and climatic and geological processes, to name just a few. Recent decades have also seen the advancement of new socially oriented approaches to this region, with particular emphasis on questions of ethnicity, materiality, embodiment, crosscultural interaction, and identity (e.g., Buzon 2006a, 2011; Hafsaas-Tsakos 2009a, 2009b; Meskell 2002, 2004; Meskell and Joyce 2003; Smith 1995, 1998, 2003a, 2003b, 2014). This dissertation aims to build upon this legacy of social theory by examining how people living in hinterland communities within the Kerma domain negotiated their cultural identities during the heyday of Kushite dominance in the region as well as during life under the Egyptian colonial program in Upper Nubia.

In this chapter, I begin by describing the geophysical context of the Middle Nile Valley. I then outline the major cultural and historical trajectories of ancient Nubia and Egypt, from the Neolithic period through to the Islamic (post-medieval) period. The aim of this chapter is to situate the reader within the overarching chronological and environmental framework of the region and its peoples, which is essential to understanding how lifeways, and therefore identities, shifted alongside political, social, and economic developments over time.

B. Geography and Landscape of the Middle Nile and the Kerma Basin

The Middle Nile Valley constitutes the region between the confluence of the Blue and White Niles in Khartoum in southern Sudan, and Aswan in southern Egypt. The part of the Nile Valley that extends from the Great Bend of the Nile near its Fourth Cataract northward through the Third Cataract is known as the Dongola Reach. Hannek is located at the northern end of the Dongola Reach, at the Third Cataract on the river's east bank. The large alluvial plain, named for the modern town of Dongola, is a section of the Middle Nile that stretches between the Third and Fourth Cataracts in the northern part of Sudan. The rocky islands and submerged granite outcrops characterizing the cataract create rapids that narrow the navigable channel of the river, significantly restricting passage by boat except during the annual flood season. The Dongola Reach is characterized by a series of floodplains with multiple paleochannels and by inundated lands directly abutting the river, though the extent of these features largely depends on the height of the annual flood (Smith 2003a; Trigger 1976). A number of natural basins are also present but are scattered more sporadically across the landscape.

These characteristics together make this region a relatively fertile zone that could reasonably have supported a dense population in antiquity. The landscape farther from the river, however, consists of rolling desert plains covered by gravel and cobbles and spotted with dispersed ferritic sandstone outcrops, in addition to marginal zones between the fertile riverine areas and the desert proper (Smith 2003c). The Dongola Reach has a long history of occupation: alluvial sedimentary data and optically stimulated luminescence (OSL) dating of deposits indicate that the paleochannel in this part of the Nile Valley was occupied

before, during, and after the Kerma period (Welsby 2001), making it home to various cultural groups over several millennia.

Abu Fatima is a small hamlet located southeast of Hannek, on the Nile's west bank, approximately 7 km north of the ancient political center at Kerma. Known 'officially' as Ashkan, Abu Fatima takes its more widely known vernacular name from the sheikh (local leader) buried in a nearby *qubba*[1]. The site is situated within the Kerma Basin, which is a sprawling alluvial plain measuring 10-15 km in width and more than 100 km in length along the Nile (Honegger and Williams 2015). Work undertaken in the last decade by Honegger (2005) and Welsby (2001) indicates that the Nile ran in multiple channels to the east of its current course during the Pre-Kerma and Kerma periods. At the height of the flood season, the Kerma Basin can encompass up to 28,000 hectares, though in a typical 'good year' its extent is closer to 15,000 hectares of alluvial sediment, making it the largest single span of fertile land between the First and Fourth Cataracts (Trigger 1976). Parts of the Kerma period cemetery at Abu Fatima have been badly damaged by modern alluvium mining in connection with the construction of a village canal, though at least 25% of the site remains intact. Excavations conducted in 2015 and 2016 were undertaken as salvage operations spurred by discussions with local authorities, who divulged plans to construct houses in the vicinity of the site.

C. Cultural and Historical Background

The ancient Egyptians referred to Nubia as 'Kush', a term that we know from Egyptian texts of the 12th Dynasty (1956-1911 BC). As discussed by O'Connor (1993) and Buzon

[1] A *qubba* is a domed tomb or shrine, typically reserved for Muslim leaders, nobility, and saints. Larger *qubbas* often serve as places of pilgrimage, though smaller ones in rural areas tend to be visited mostly by local community members.

(2011), however, the etymology of the toponym 'Nubia' remains under dispute. Many scholars have argued that the name originated from the ancient Egyptian word *nebu*, meaning 'gold' (Bianchi 2004). The popularity of this interpretation stems from the fact that Nubia served as Egypt's primary source of gold in antiquity (Adams 1977), but the validity of this hypothesis remains under scrutiny. Whatever its origin, the word 'Nubian' first appears in Greek texts of the 3rd century BC (Wenig 1980), and its use continues today, in reference to the ancient population of southern Egypt and northern Sudan. The cultural boundaries of ancient Nubia extend from the First Cataract of the Nile River, located near Aswan in modern-day Egypt, to the Sixth Cataract, located just north of Khartoum, Sudan (see Figure 1). Lower Nubia lies north of the Second Cataract, near the modern border between Egypt and Sudan, while Upper Nubia extends to the south of the Second Cataract. Nubia and its people boast a long and rich cultural history that spans more than a dozen millennia.

1. The Nubian Neolithic (ca. 5000-3000 BC)

Although there is archaeological evidence for human activity in Nubia dating to as early as about 10,000 BC, relatively little is known about Paleolithic and Mesolithic populations. In contrast, significantly more research has been carried out on Neolithic communities. The Early Neolithic (ca. 5000-4000 BC) marked the transition in Nubia from an economy characterized by hunting, gathering, and fishing to one based primarily on domesticated plants and animals (Edwards 2004). Increased reliance on cattle, caprines, camels, and agricultural produce such as millet and barley spread quickly throughout the region, occurring alongside a climatic shift toward desertification of the region as a whole (Bianchi 2004; Honegger 2014). This is not to say that Neolithic Nubians ceased fishing and the

hunting of wild animals following the adoption of domesticated foods. Rather, petroglyphic evidence dating to this period depicts the hunting of pachyderms, giraffes, and ostrich and other birds (Bakheit 2014).

These conditions, coupled with changes in the Nile's course resulted in a wide distribution of settlements across the landscape. The nature of extant sites varies widely, with some appearing as relatively permanent settlements while others seem to have been used only as seasonal habitations and/or hunting camps (Haaland 1981, 1987). Early Neolithic stone tool technology became increasingly diverse, as did ceramic vessel forms and decorative styles. The popularity of jewelry and other items related to personal adornment and display also grew at this time, suggesting not only greater social complexity, but also the growing importance of communicating individual status and identity (Edwards 2004).

Permanent settlements became more abundant during the Late Neolithic (ca. 4000-3000 BC), and resource-rich areas in Upper Nubia, such as Kerma and the Wadi el-Khowi, seem to have been densely occupied. Greater variability in grave good assemblages may indicate more complex status hierarchies than before, and there may be some evidence for exchange-based power in some areas (Edwards 2004). It is likely that the rise of permanent settlements and the move toward social stratification was the result of the shift toward agricultural in Nubia as part of the 'Neolithic revolution' occurring throughout the Old World at this time (Bianchi 2004).

2. Pre-Kerma and the Predynastic/Early Dynastic Period in Egypt (ca. 3000-2500 BC)

Comparatively little is known about the transitional phase of Upper Nubian prehistory that scholars have dubbed Pre-Kerma, especially in the Dongola Reach region. This dearth of knowledge is largely due to poor preservation of archaeological material dating to the Pre-Kerma period and is coupled with the difficulty of distinguishing Pre-Kerma material from subsequent Early Kerma evidence. The Pre-Kerma culture was first identified in the 1980s, when an early settlement about 10 hectares in size was discovered beneath Kerma's eastern necropolis (Bonnet 1988; Emberling 2014; Honegger 2004). Ceramic evidence from the site indicates that the settlement pre-dated the subsequent Kerma Period, but no clear-cut cultural elements could be defined.

Pre-Kerma officially marks the beginning of the Nubian Bronze Age in scholarly circles, but even now, three decades after its initial discovery, it is often difficult to delineate clear cultural boundaries between Neolithic, Pre-Kerma, Early Kerma, and Lower Nubian A-Group assemblages. Thus, such designations are generally left to the judgment of individual researchers, whose opinions can vary widely with regard to date and cultural origin. For these reasons, all that can be said unequivocally about Pre-Kerma populations in Upper Nubia is that they established a number of autonomous communities that coalesced over time into a larger state polity that became the kingdom of Kerma (O'Connor 1993). Recent research indicates that Pre-Kerma communities existed to the south of Kerma itself, possibly as far south as the Fourth Cataract, but current evidence is restricted almost entirely to the northern part of Upper Nubia. Thus, it is as yet impossible to say with any certainty what

relation, if any, Pre-Kerma society had to other cultural groups in the region (Honegger 2014).

3. Early Kerma (Kerma Ancien) and the Egyptian Old Kingdom and First Intermediate Period (ca. 2500-2050 BC)

Though the exact nature of the emergence of Africa's second largest state (O'Connor 1993) remains unclear, it is widely accepted that Kerma's florescence resulted from the merging of a series of Early Bronze Age communities. As the paleochannels that served the earlier Pre-Kerma communities shifted westward, so too was the primary settlement site relocated to what would become the Kerma capital, the type-site after which the cultural group and time period came to be called by archaeologists. Additional urban centers arose at Sai and Bugdumbush (Emery and Kirwan 1935; Vercoutter 1958). Together, these three central polities facilitated trade between Egypt, Nubia, and central Africa (Bonnet 1997). The Kerma period is divided into three chronological phases: Early Kerma (Kerma Ancien), Middle Kerma (Kerma Moyen), and Classic Kerma (Kerma Classique; Gratien 1978). Some scholars also recognize a fourth phase known as Late Kerma, which corresponds to the Egyptian conquest of Nubia (Table 1).

Table 1. Chronology of Upper Nubia and Egypt (after O'Connor 1993) along with major historical developments.

Date BC	Upper Nubia	Egypt	Events
2500 – 2050	Early Kerma	Old Kingdom, 1st Intermediate Period	Emergence and growth of the Kerma state
2050 – 1700	Middle Kerma	Middle Kingdom	Increased Kerman-Egyptian interactions
1700 – 1500	Classic Kerma	2nd Intermediate Period	Kerma dominance and expansion
1500 – 1080	Egyptian Occupation	New Kingdom	Kerma under Egyptian control

Early Kerma settlements in the northern Dongola Reach became more numerous and dense than those of the Pre-Kerma period, and increased differentiation of wealth among burials of this period indicate growing distinctions in status (Emberling 2014; Gratien 1986). Moreover, Kerma had become a fully formed kingdom by about 2500 BC, already under the rule of centralized leadership according to Egyptian texts (Breasted 1962; Shinnie 1996). Scholars originally believed that this new political entity was organized as a simple chiefdom. More recently, however, archaeological evidence has indicated that in reality this polity was a formidable kingdom with a great deal of political sway in the region, becoming one of the longest-lived states on the African continent (Bianchi 2004; Bonnet and Valbelle 2006; O'Connor 1993; Smith 1998).

Concurrently, during the Old Kingdom (ca. 2500-2000 BC), Egypt enjoyed a prolonged period of political and religious unity with the expansion of pharaonic ideology and a centralized bureaucratic system. As Egypt became increasingly powerful in the region, the state sought to expand its territory—and its material wealth—via a series of raids and expeditions into Lower Nubian territory. The early Old Kingdom was characterized by the colonization of its southern neighbor, largely for the purpose of exploiting Nubia's mineral resources. Shortly after the inception of the Old Kingdom state, the indigenous Nubian A-Group culture, which had until that time inhabited Lower Nubia, met its end and gave way to the Nubian C-Group civilization. In the latter half of the Old Kingdom, the Egyptian state shifted its political focus toward diplomacy and the establishment of trade relationships based on the exchange of prestige goods and raw materials. These efforts were in large part directed at Kerma, which, as noted above, had become as a middleman for exchange

between its northern and southern neighbors. Textual evidence of such activities includes descriptions by the Egyptian merchant Harkhuf of his forays into Nubia, where a local leader facilitated trade with Egypt (Breasted 1962; O'Connor 1993; Shinnie 1996).

The prosperity of the Old Kingdom, however, was not to last. By 2181 BC, centralized power in Egypt began to dwindle, marking the beginning of the First Intermediate Period. A combination of sociopolitical factioning and environmental desertification plagued the Egyptian state. Increasingly, leaders of localized nomes[2] vied for power, creating a number of competing bases of power within their respective jurisdictions. As these political factions fractured the Egyptian political system, ultimately descending into outright civil war, Kerma continued to build its power base and soon established itself as a substantial threat to Egypt's domain.

4. Middle Kerma (Kerma Moyen) and the Egyptian Middle Kingdom (ca. 2050-1700 BC)

By the Middle Kerma phase (ca. 2050 BC), the Kerma state had become so powerful as to be perceived as a menace politically and militarily in the eyes of Egyptian rulers. Following the political fragmentation that characterized the First Intermediate Period, the Egyptian state once more reunified and centralized its government at the southern capital of Thebes. In response to Kerma's growing influence, Egypt heightened its military presence by establishing a system of fortifications in Lower Nubia in an attempt to quell Kerman encroachment into Lower Nubia and, potentially, southern Egypt (Smith 1995). The construction project, begun by the pharaoh Senusret I in 1943 BC and completed 100 years

[2] This term refers to administrative districts or provinces. The word itself is of Greek origin but is widely used in the Egyptological literature.

later by Senusret III, entailed the construction of 17 heavily fortified towns spanning the Second Cataract region, along with the expansion and/or renovation of older forts (Bard 2008; Smith 1995; Trigger 1976). These massive mudbrick structures afforded Egypt the logistical capability to establish dominance over Lower Nubia, to control interregional trade and exchange, and to maintain a watchful eye over the political enterprises of the Kerma state.

Egypt also employed more aggressive tactics in its attempts to hinder Kerma expansion, including major maritime expeditions along the Red Sea that may have required nearly 4,000 conscripted troops according to textual evidence[3]. Such missions included the exploitation of valuable raw materials in Nubia as well as controlling the movements not only of Kerma but also of Lower Nubian C-Group populations and groups of desert nomads known as the *Medjay*. It is worth taking note of the fact that in deploying these expeditions, Egypt bypassed the more direct riverine route that would have taken its envoys through Kerma-controlled territory; rather seafaring ships were constructed at Coptos in Upper Egypt, disassembled, and transported by land across the Eastern Desert to the port at Wadi Gawasis where they were then reassembled and put out to sea (Bard 2008). Such convoluted undertakings underscore the threat that Kerma posed to its northern neighbors.

While Egypt was establishing its military presence farther north, population and settlement density during the Middle Kerma phase in Upper Nubia increased significantly. Despite the Egyptian stronghold over the Second Cataract, Kerma expanded its cultural and political influence along the Middle Nile (Emberling 2014). This period also saw increased

[3] Descriptions of seafaring expeditions appear in 12th Dynasty inscriptions from Wadi Gawasis, a port on the Red Sea, that indicate the deployment of more than 3,700 troops. It is unclear, however, how accurate these counts are, given the proclivity of ancient rulers toward exaggerating their military exploits.

political centralization as the Kerma center became more expansive and progressively urbanized. By this time, agriculture and domesticated herd animals had become essential to the Kerma economy and diet, on a much larger scale than has been documented for earlier periods (Bianchi 2004). In addition, or perhaps as a result, differentiation in wealth and status continued to become more pronounced, which is particularly evident from increasingly elaborate burials as well as the florescence of ancestor cults and the recognition of inherited status (Edwards 2004; Schrader 2015). Ultimately, the Kerma kingdom came to control the lands encompassing the Fourth Cataract northward to the *Batn el-Hajar* (the "Belly of the Rock"), the landform that serves to demarcate the cultural boundary between Upper and Lower Nubia.

Kerma's expansion put a great deal of pressure on the Egyptian colonial program; indeed, it is safe to conjecture that by this time, quelling the Kerma state had become of primary importance to Egyptian administrators. In turn, Kerma certainly felt the gravity of foreign encroachment, as evidenced by its own increased fortifications and more substantial settlement architecture (Bonnet 1990, 1992). Thus, with Egypt dominating Lower Nubia from the Second Cataract and aiming ever southward, we can be relatively certain that interactions between the two states—albeit increasingly hostile ones—became more pronounced during the Middle Kerma phase.

5. Classic Kerma (Kerma Classique) and the Egyptian Second Intermediate Period (ca. 2050-1700 BC)

The Kerma kingdom grew in complexity over the next few centuries, and by 1680 BC it had reached the height of its power, gaining political dominance in Upper Nubia and even expanding northward into Lower Nubia. Indeed, the Kerma capital itself more than

quadrupled in size, growing from six to about 25 hectares during the Classic Kerma phase (Bonnet 1994). By this time, Kerma had garnered influence over an area encompassing approximately 1000 km (Edwards 2007; O'Connor 1993; Török 2009), maintaining its authority there for the next two hundred years.

By the start of the Second Intermediate Period, the Egyptian state had become politically fragmented. The so-called Hyksos, who had migrated into Egypt from the Near East during the Middle Kingdom, ruled the northern part of Egypt with their capital at Avaris in the Nile Delta. Meanwhile, the Egyptians held a second, less powerful seat of government centered at Thebes in the south (Bietak 1996, 1997). It has also been posited that Kerma formed an alliance with the Hyksos against the Theban rulers (Callender 2000). The lack of a unified governing body in Egypt meant not only that Kerma enjoyed few obstructions to its rise to political dominance, but also that Egypt had little recourse against its two foreign adversaries.

As a result of Kerma expansion in the region and beyond, Kerma also heightened its trade relationships with Lower Nubian C-Group populations and the Second Cataract forts ultimately fell out of use. Such relationships facilitated even greater degree of Kerma influence, creating a political threat the likes of which Egypt had never encountered in Nubia. It should be noted, however, that the fall of the Egyptian fortresses did not entail the exodus of Egyptian populations in Nubia. To the contrary, a significant number of expatriates continued to live in the region, residing among and engaging in various forms of interaction with both C-Group and Kerma communities (Smith 1995).

On the whole, social complexity intensified throughout the Kerma period until the kingdom's eventual defeat, as is evidenced particularly by marked differentiation of burial

wealth. The earliest phase of the period marks the emergence of cultural traditions in Upper Nubia that are distinct from contemporaneous traditions in Lower Nubia in the north. Such cultural divergence continued into the Middle Kerma phase, which is now widely accepted as the formative period of Kerma cultural traditions (Lacovara 1987). By the end of the Kerma period, however, Egyptian influence resulting from long-term interaction between the two states became so pronounced that in the areas that have thus far been investigated Kerma material culture largely disappears from the archaeological record. By and large, scholars have accepted these developments as evidence for the widespread Egyptianization of Nubian communities, but further research is required if we are truly to understand what processes occurred surrounding the collapse of the Kerma kingdom.

The power differential between the Kerman and Egyptian states shifted once more, and with great finality, in 1502 BC with the Egyptian pharaoh Thutmose I's conquest of Nubia and his subsequent implementation of a colonial program that lasted another five centuries, thereby permanently eliminating Kerma as a regional power (Frandsen 1979; Morkot 2001). Despite the eventual decline of the Kerma state, longstanding Kerma dominance in the region contradicts the view of researchers who would view Nubia as a trivial regional presence compared to its northern neighbors (e.g., David 1988; Emery 1965; Grimal 1992; Van De Mieroop 2011).

6. Late Kerma (Kerma Recent), the New Kingdom Occupation (ca. 1500-1070 BC), and the Third Intermediate Period (ca. 1070-664 BC)

After the Kerma kingdom fell under the reign of Thutmose I, it remained under Egyptian control throughout the New Kingdom. The colonial program brought about significant changes within the Kerma heartland. For instance, it quelled the power of the Kerma

kingship and lay waste the capital, leading to the abandonment of the royal cemetery and the central temple (Breasted 1962; Emberling 2014). There is also fragmentary evidence suggesting that many people migrated away from the old city and established new settlements to the southwest (Edwards 2004).

As Egypt expanded its domain south to the Fourth Cataract, the empire erected stelae and other monuments throughout the Kerma heartland, declaring in no uncertain terms the Egyptian victory over "Wretched Kush" (Smith 2003a). It is at this time that Kerma material culture virtually disappears from the archaeological record, at least in the urban centers of Sai and Kerma (Morkot 2000; Nikita et al. 2014). The fact that most archaeological investigations of the Kerma period have focused on these large polities initially led to an overarching belief in the wholesale assimilation of Nubian groups to Egyptian traditions (e.g., Breasted 1909; Reisner 1923). More recent work, however, has shed light on the much more complex and multidirectional shifts in cultural practice, among Nubians and Egyptians alike (Schrader 2013, 2015; Smith 2003a, 2013).

With Egypt strengthening its colonial presence in Nubia, an influx of Egyptian administrative officials, priests, artisans, and their families emigrated southward into the Nubian heartland (Kemp 2006). There is some textual evidence from Egypt that points to the relocation of these colonizers to urban centers as they assumed newly created political offices (Emery 1965; O'Connor 1983), though it is currently unknown whether any of their compatriots may have settled in more marginal areas within the Kerma domain. There is also the possibility that local Nubian persons of influence were able to maintain positions of leadership within the local colonial government. Although acculturation of Nubian populations was certainly not mandated by Egypt, there are indications that those who chose

to maintain local traditions were relegated to relatively lower socioeconomic status within the Egyptian colonies (Ward 1994). Thus, Nubian individuals aspiring to climb the political ranks may have been pressured to adopt Egyptian cultural traditions and appearance to maintain their status under foreign rule.

Egypt's colonial presence in Nubia continued until Libyan invasions into Egypt along with drought, famine, and political dissidence among religious and administrative leaders created yet another period of factionalism for the colonial power (Wilkinson 2007). Political control shifted to Tanis in the Nile Delta, while Theban rulers and the priesthood of Amun established a border at el-Hiba, in Middle Egypt, fortifying their territory against the northern kings while technically acknowledging their authority. Thus, the once unified state lost its grip not only on Egypt but also on Nubia and portions of the eastern Mediterranean (Bard 2008). Meanwhile, Nubian leaders reestablished a political presence in their home territory and by ca. 850 BC had successfully restored their own state system.

The fate of local cultural traditions during the New Kingdom and Third Intermediate Period has remained something of a mystery in the rural Kerma communities south of the Third Cataract. Some researchers have posited that during the New Kingdom, Nubian communities assimilated to Egyptian lifeways, adopting wholesale the material culture and traditions of their colonizers. Following the occupation, these scholars argue, local populations either abandoned their former territories and emigrated to other regions or reverted to seminomadic tribal lifeways (Kendall 1982; O'Connor 1983).

More recent investigations, however, have provided a greater degree of insight into these areas, offering contrasting viewpoints to those of their academic predecessors. Surveys and excavations indicate that Egyptian ceramics are present at sites in the Dongola Reach

(Edwards and Osman 1994, 2001; Smith 2003a; Welsby 2001a; see Chapter 4, this dissertation), but there is thus far nothing to suggest that Kerman Nubians assimilated to Egyptian traditions. Moreover, recent research has uncovered no evidence for either a mass exodus from Nubia or for a retreat to less complex political organization.

To this point, Welsby notes that, in opposition to the patterns seen elsewhere, "there is no reason to suppose that the arrival of the Egyptians in [Upper Nubia] had much effect on the rural settlements occupied by Kerma farmers, and the Kerma culture may have continued for some considerable time (2001:590). In addition, Egyptian textual evidence indicates that at least some communities in the region may have remained under the control of indigenous rulers even after the Egyptian conquest, maintaining a tentative political and/or economic relationship with Egypt (Edwards 2004; Morkot 1991). It is therefore likely that many Kerma period settlements continued to be occupied by indigenous populations throughout the New Kingdom, with the addition of new settlements established along the Nile as its course gradually shifted west.

The complexity of Egyptian-Nubian interactions during this period is reflected in the variable nature of the archaeological record in the region. Although most cemeteries that have undergone detailed analysis exhibit a general shift toward Egyptian mortuary tradition, local communities seem to have adopted these foreign practices in a variety of creative ways, incorporating elements of indigenous tradition alongside Egyptian practices and objects (Säve-Söderbergh 1991; Smith 1998, 2003a). These patterns suggest the possibility that the Egyptian conquest, rather than stifling local expressions of cultural identity, opened up new avenues for identity formation and/or status-building.

7. The Napatan Period and the Nubian Pharaohs (ca. 760-300 BC)

By the eighth century BC, the Nubians had ousted Egypt as part of a political revival, ultimately establishing a new state centered near the Fourth Cataract at Napata. There is much scholarly debate over the origins of the Napatan kingdom, and as such it is uncertain precisely how the Napatan state regained control of the region. What we know at present is that it far exceeded its Kerma period predecessor in size and influence, not only in Lower Nubia and Upper Egypt to the north, but also as far south as central Sudan (Edwards 2004). By 760 BC, Napata had conquered and assumed dominance over Egypt through a succession of rulers known as the 25th Dynasty.

The Nubian pharaohs governed Egypt until they were expelled by the Assyrians in the 650s BC. Little is known about the later part of the Napatan period, other than that Egypt defeated Napata in the war of 593 BC. There is some evidence that a series of destruction episodes took place over the next couple of centuries (Edwards 2004), but despite these setbacks, Napata seems to have maintained control over parts of Upper and Lower Nubia throughout this period, especially in the region of the Second Cataract (O'Connor 1993; Williams 1990). In addition, the Napatan state may have sustained trade relations and diplomatic ties to Persia, possibly even serving alongside Xerxes' army against the Greeks in 480-479 BC (Edwards 2004; Herodotus *Histories* VII: 69).

Settlements of this period and their associated cemeteries were primarily aggregated around three major centers: el-Kurru, Nuri, and Jebel Barkal, with additional settlements in the vicinity of Kerma and the Wadi el-Khowi. Napatan pottery and other objects found their way across the entire extent of the Napatan realm (Buzon et al. 2016; Edwards 2004; Edwards et al. 2012; Wolf 2004). Egyptian pottery, glasswork, and faience objects were

widespread in Nubia during this period, as were Egyptian mortuary traditions. As before, however, these foreign cultural elements were often blended with local Nubian traditions and innovations as part of a syncretic cultural climate (Smith 2003a; Smith and Buzon 2014a).

8. The Meroitic Period (ca. 300 BC-AD 350)

After the transition away from Napatan dominance, the Nubian state shifted its capital to the city of Meroe, located between the Fifth and Sixth Cataracts. The beginning of the Meroitic period is marked by the transfer of the royal cemetery to the new capital and by a series of major building episodes. The history of the Meroitic kingdom is currently relatively sparse, and our knowledge of the period is primarily centered around the dynastic histories first developed by Reisner (1923) and mentioned in a few ancient Greek and Latin texts. The annals of the Meroitic rulers have also survived, but as yet scholars have only partially deciphered the language in which they are written.

Although the boundaries of the Meroitic state were relatively fluid and therefore difficult to define, it is widely accepted that Meroe established control of an expansive region stretching from south of modern Khartoum to the Second Cataract in the north (Edwards 2004; Török 2009). With the collapse of the preceding Napatan state, many of the old urban centers were abandoned in favor of newer, larger settlements, many of which were located in central Sudan. Far less is known about the nature and distribution of hinterland communities, though there is some evidence that populations exploited a number of areas away from the river quite extensively, particularly toward the east (Edwards 2004; Fuller 2014). In the Dongola Reach, major Meroitic settlements have been identified at Jebel

Barkal and at Kawa (Welsby 2001), as well as at Kerma following Kawa's eventual decline (Bonnet 2001).

Cultural variability is much more apparent in Meroitic contexts than in those of any preceding period. It is important to note that the cultural forms considered by scholars to be 'typical' of the Meroitic civilization were restricted mainly to the ruling elites, meaning that non-elites likely subscribed to a more variable cultural aesthetic (Haaland 2014). Such variability is especially evident in handmade ceramic traditions, which exhibit such diversity that they may reflect highly localized identities (Edwards 2004).

9. The Christian Period (ca. AD 500-1323)

Neither the gap of 150-200 years between the decline of the Meroitic kingdom and the arrival of Christian missionaries in Nubia, nor the mechanisms by which Christianity eventually took hold in the area, are well understood. It seems that the spread of Christianity in medieval Nubia was largely confined to riverine communities, and its impact varied significantly between and within regions (Edwards 2004; Welsby 2002). It is also highly possible that environmental changes, such as extreme fluctuations in Nile floods and droughts caused by low rainfall during the first millennium AD, contributed to cultural and political change alongside the influx of new religious and traditions (Hummert and Van Gerven 1983; Van Gerven et al. 1995).

Archaeological evidence suggests that in the medieval period, new urban centers emerged from which political and religious power emanated while the major polities of the Meroitic period declined (Edwards 2004; Shinnie 1965). New settlement and subsistence patterns also developed in the Upper Nubian hinterlands at this time, with a reliance on irrigated agriculture becoming prominent in the north. Rural areas became more densely

populated, and many villages were characterized by much more substantial architecture than that of their earlier counterparts. In addition, new ceramic types emerged, many of which bore explicitly Christian symbols, and many of which are reminiscent of late Romano-Egyptian styles (Adams 1986; Edwards 2004). Medieval Nubian polities maintained trade relations with Egypt, even after the Arab conquest of the latter, and a number of Red Sea trade networks flourished between Nubia and its neighbors, allowing for the import of glasswork from southern Arabia and pottery from Egypt, China and other neighboring regions.

By the end of the Christian period, new Arab and Islamic ethnic and religious identities had appeared and had begun to spread throughout Nubia, and it is likely that sizeable Arab populations were migrating into the region (Edwards 1999, 2004). Such movements of people and ideas led to large-scale social, political and religious changes throughout Nubia resulting in new, often conflicted, relationships with neighboring regions.

10. The Islamic Period (ca. AD 1317-1885)

Following the decline of Christianity in Nubia, a number of new kingdoms and polities arose across a much larger area of what is now Sudan and South Sudan. Urban centers and hinterland villages alike became increasingly integrated into large-scale trade networks, and the spread of Islam brought about new, far-reaching cultural and religious affinities (Edwards 1999; el-Zein 2000). The Ottoman Empire moved into northern Nubia in the 1560s, establishing its frontier near the Second Cataract and eventually pushing its way south to the Third Cataract where it remained into the eighteenth century. Egyptian ruler Muhammad Ali's conquest and annexation of Sudan in 1820 established much of Sudan's modern social, cultural, and political framework (Edwards 2004; Hassan 1967). During the

seventeenth and eighteenth centuries, the heightened influence of Islamic law, customs, and trading practices transformed Sudanese socioeconomic structure, often at the expense of indigenous traditions.

Present knowledge of post-medieval settlement patterns comes almost entirely from textual evidence. These documents tell us that urban communities of this period agglomerated around the *qubba* tombs of Muslim religious leaders, an group who became part of a new 'Islamic elite' that exerted considerable power and influence across the changing sociopolitical landscape, leading to the florescence of new concepts of private property and new 'Arab' identities that became intermingled with local cultural and ethnic identities (Edwards 2004; el-Zein 1987). In addition, new trans-Sudanic overland routes were established, linking populations across western, central, and northern Sudan (Adams 1988). These new contacts spurred not only the transfer of material goods across different cultural groups, but also the transfer of information and ideas related to foodways, religious practices, intellectual endeavors, and political processes.

D. Hannek and Abu Fatima in Context

Located on the west bank of the Nile near the Third Cataract, the settlement at Hannek was established during the earliest part of the Kerma period and was occupied at least as late as the Christian period, as evidenced by survey data from the 1990s (Smith 2003c) and by ceramic data from the 2015 and 2016 excavation seasons (see Chapter 5, this dissertation). The architectural, ceramic, and other archaeological evidence suggests that Hannek was likely inhabited by indigenous Nubians throughout the entirety of the Kerma period and following the Egyptian conquest, though it is not entirely out of the question that the settlement may also have housed Egyptian expatriates who adopted local lifeways.

Evidence from the later part of the New Kingdom and beyond is inconclusive as to whether an Egyptian population was present, or whether the Egyptian influence noted in several burials dating to the Third Intermediate and/or Napatan period in proximity to the Hannek settlement is simply a result of local adoption of foreign stylistic attributes.

Hannek is situated on the opposite bank of the Nile to the Kerma capital and approximately 7 km to the north, making it truly a hinterland community while Kerma held control of the region. The settlement would have been near enough to the capital to adhere to a 'Kerma' way of life, yet distant enough to be removed from political, administrative, and possibly even some economic activities. The material aspects of life at Hannek were strongly linked culturally to Kerma traditions. Domestic architecture and foodways, too, closely mirror those documented at other Kerma period sites. Although a small range of Egyptian ceramics and/or particular goods that were at one time stored within them were in use at both Hannek and Abu Fatima, the material evidence from these sites is largely characteristic of Nubian traditions. This phenomenon will be discussed in greater detail in the subsequent chapters of this work.

Abu Fatima, located on the Nile's east bank is also situated very near the Third Cataract, approximately 5 km north of the Kerma center. Though much of the ancient cemetery is badly damaged due to modern alluvium mining activity, a sizeable portion of the site remained relatively intact when excavations were undertaken during the 2015 and 2016 field seasons (see Chapter 4, this dissertation). Ceramic and other material evidence, along with radiocarbon dates, indicate that the cemetery was in use for several centuries during the Early, Middle Kerma periods, and Classic Kerma phases, with artifactual and radiocarbon data confirming later reuse during the Meroitic period. It does not appear at this time that

the cemetery was in use during the New Kingdom occupation of Nubia. In addition to the cemetery, a likely contemporaneous settlement—identified as such based on surface collection—was located just northeast of the Abu Fatima cemetery[4]. Future excavations in the possible settlement area, along with continued work in the cemetery, will accomplish much in the way of broadening our understanding of the interplay between habitation and burial settings in the expression and negotiation of cultural identities.

The Kerma period burials at Abu Fatima are, in general, reflective of Kerma mortuary tradition, the details of which are discussed in the subsequent chapters of this dissertation. The artifactual evidence suggests that individuals interred within the cemetery were likely of local origin, though ongoing and future bioarchaeological analysis of skeletal remains from the site will undoubtedly shed more light on this matter (for bioarchaeological approaches to identity, see, for example, Buzon 2008, 2011; Buzon et al. 2016; Schrader et al. 2014; Torres-Rouff and Knudson 2017). As at Hannek, a selection of Egyptian pottery was recorded in a number of the Abu Fatima burials. Overwhelmingly, however, the material evidence exhibits a Nubian character, even during the latest part of the Kerma period when local material culture was replaced by Egyptian traditions at larger centers such as Kerma proper and Sai Island.

The Third Cataract was a politically and socially complex location within the Middle Nile, especially during the Kerma period when it became a culturally pluralistic borderland, region where Egyptians, Lower Nubians, and Upper Nubians interacted in both cooperation

[4] It was originally hypothesized that the ancient settlement at Abu Fatima, or Ashkan as it is officially named, is located beneath the modern village. Many Nubian towns have a long history of use and reuse, making it difficult for archaeologists to conduct excavations due to the impracticality of disrupting the daily lives and infrastructure in modern settlements. However, preliminary surface inspection yielded evidence of sherd scatters consistent with settlement activity and dating to the correct period.

and in conflict. As the Egyptian empire pushed southward into Nubia, the sites north of the Third Cataract that fell under Egyptian control took on a cultural milieu that was influenced heavily by Egyptian practices and aesthetics (Smith 1995, 2003a). This phenomenon may largely be attributed to the establishment of Egyptian colonies at Amara, Sai, Sesebi, Soleb, and Tombos, in addition to the Second Cataract fortresses. In these settings, interactions between locals and foreigners were direct and were the result of multiple cultural groups cohabiting and vying for control of the region.

But how direct was the intercultural exchange of goods and information in the Kerma hinterlands? And were the lived experiences of these hinterland groups in times of political and social transition similar to the experiences of their urban counterparts? Most archaeological research in Nubia has focused on large polities such as Kerma and Sai, thus providing only glimpses of the diverse cross-cultural interactions throughout other parts of the region. While it is important to examine how colonial processes impacted major centers, it is also essential to gain an understanding of how rural settlers engaged with those processes because such communities formed a sizeable portion of the larger state system. The research presented here provides further insight into the differential experiences of urban and rural dwellers partaking in colonial interactions. This work highlights the necessity of community-level examinations of colonialism and identity, both in Nubia and in other world regions.

E. Summary

This chapter has examined the historical and cultural trajectory of the Middle Nile Valley from the Neolithic through to the post-medieval period, situating the hinterland sites of Hannek and Abu Fatima within the events outlined in the chapter. The reader may have

noted that greater attention has been paid here to the Kerma civilization than to Egypt. Likewise, earlier and later Nubian cultural groups have been discussed only briefly relative to Kerma. This is because the specific focus of the present research is on two communities in the Kerma hinterlands, during and immediately following the Kerma period, rather than on Egypt or other Nubian civilizations. Thus, this chapter has emphasized the interactions, both cooperative and confrontational, between the Egyptian and Kerman states, including discussions of intercultural trade and exchange, Kerma expansion, and the fluctuating nature of political control over Upper and Lower Nubia.

The chapter has also elucidated how the hinterland communities of Hannek and Abu Fatima were situated, both geographically and culturally, within this complex set of interactions. In particular, this chapter emphasizes the rural nature of these two sites, at which the material evidence points to an affinity for Nubian traditions throughout their long histories of use. Further examination of local lifeways and mortuary practices at these sites will reveal, in later chapters, the ways in which members of both communities engaged with the larger sociopolitical sphere, providing insight into negotiations and maintenance of cultural identities in the wake of social change.

III. Identity in the Wake of Nubian-Egyptian Interaction: Theoretical Perspectives and Hypotheses

A. Introduction to the Chapter

This dissertation investigates the processes by which communities on the outskirts of larger state systems engage with the effects of intercultural interaction and colonialism, and the ways in which the members of those communities conceptualize, express, and negotiate their cultural and social identities. Specifically, this research examines these conditions at the Third Cataract sites of Hannek and Abu Fatima from the beginning of the Kerma period, through its florescence and ultimate demise coinciding with the Egyptian conquest of Nubia. This diachronic approach allows for a more thorough reconstruction of life in the Kerma hinterlands than has been presented to date, and it provides insight into how identities become mutable in light of shifting social and political processes. The present research also highlights the importance of community-level analysis of colonialism and identity by focusing not only on the differential lived experiences of rural and urban populations, but also on varied experiences of differing rural communities. This chapter addresses these theoretical considerations as well as the hypotheses and research questions that guided this research.

B. Contact and Colonialism

In recent decades, scholars have realized the need to investigate the effects of crosscultural interactions on ancient societies, leading to a proliferation of culture contact literature encompassing a wide range of approaches. The term 'culture contact' refers to diverse interactions that may be violent, non-violent, long-term, short-term, large-scale,

small-scale, symmetrical, or asymmetrical (Silliman 2005) and comprises interactions of various types, including trade and exchange, diasporas, conquest, and colonialism. Studies of these phenomena have highlighted the role of culture contact in its various forms as a mechanism for sociocultural change and have enabled archaeologists to investigate the links between interaction, power relations, and the construction and negotiation of identities (Cusick 1998; Stein 2002a).

Colonialism, as one form of culture contact, is a process by which a central polity exerts control over people and territories outside its geographical boundaries (Silliman 2005), usually by establishing settlements within those territories (Stein 2002b). Traditional approaches to ancient colonialism are based on analogies with modern western European colonial programs in Asia, Africa, the Americas, and elsewhere. These studies have favored the application of core-periphery models (e.g., Algaze 1993; Blanton and Feinman 1984), which are informed to a large degree by modern world-systems theory (Wallerstein 1974). Drawing on earlier acculturation models (e.g., Malinowski 1945; Spicer 1961), these approaches presume the presence of passive indigenous communities who inevitably assimilate, either willingly or by force, to the cultural traditions of a dominant colonizing entity. Such frameworks, however, apply to only a small subset of colonial scenarios, and they are often excessively deterministic. In addition, while it may be useful to reconstruct some aspects of the remote past based on our understanding of recent history, it should not be assumed a priori that modern colonial ideologies mirror those of antiquity. Thus, scholars have moved beyond core-periphery models in favor of investigating the variability of power relations across colonial contexts. This work has revealed that while some conditions foster power differentials that are asymmetrical in favor of a single dominant polity, others are

characterized by dialectical relationships in which control may fluctuate between polities (Smith 1998; Stein 2005). The ever-shifting power differential characterizing the Kerman and Egyptian states fit into the latter category, with Kerma dominating Upper and Lower Nubia in the early part of the Kerma period, and Egypt establishing a colonial presence in the Middle Kerma phase into the New Kingdom.

It is important to note that, like many forms of culture contact, the colonial process does not occur as a series of isolated short-term episodes between two discretely bounded cultural entities with discrete cultural forms (van Dommelen 2002). Instead, colonialism should be viewed as a long-term and gradual process of cultural entanglement (Dietler 2010; Smith 2014; van Dommelen and Rowlands 2012) in which *individuals*—not cultures—interact, share knowledge, create exchange networks, form relationships, and engage in conflict. As a consequence, cultural boundaries in these contexts are fluid, allowing for the creation and transformation of identities. Identities can be conceptualized at the individual or group level, and they often shape social relationships and interactions at both of these levels. They can be ascribed or chosen, and they can be expressed both explicitly and implicitly in a variety of ways, including through foodways, modes of dress and personal adornment, participation in ceremonies and rituals, language, and burial customs, and through the stylistic and technological aspects of various material goods such as tools, architecture, and household items (Insoll 2007; Neuzil 2008; Stein 2005). Identities are multidimensional, incorporating aspects of gender, age, class, occupation, ideology, and ethnicity. It is therefore essential to examine both settlement and mortuary contexts in order to understand how colonial interactions crosscut the various dimensions of Nubian identity in rural Kerma societies leading up to and during Egyptian encroachment into the Kerma domain.

C. Social and Cultural Identities

Cultural identities become especially salient in colonial contexts, which are prime settings for the communication of both affinities and differences between actors of differing cultural backgrounds (Barth 1969). But it should be noted that identities are not expressed passively as mere reflections of similarities and differences. Identities may be asserted to communicate a shared cultural affiliation, or they may be expressed to underscore cultural differences, but in either case they actively shape the social interactions within which they are negotiated (Bhabha 1996; Jones 2007). It follows, then, that in situations of long-term colonial interaction, cultural identities and the ways in which they are expressed may change over time alongside shifting balances of power and changing social, political, and economic conditions.

Not all expressions of identity are visible archaeologically, but many leave material traces that can provide insight into how ancient peoples conceptualized and communicated their identities. For example, culinary preferences and practices are one means by which identity may be expressed (Dietler 2007; Smith 2003a). These are accessible not only through faunal and botanical remains, but also through chemical analysis of ceramics and other implements of food processing and preparation (Clark 2001). Culinary practices may also be evident through the examination of technologies and styles associated with cooking and serving vessels (Dietler and Herbich 1998; Gosselain 1998; Neuzil 2008). These object classes are most often found in settlements such as at the Hannek settlement (see Chapter 5, this dissertation).

Additionally, identities projected through modes of dress and personal ornamentation are often visible in the archaeological record (Diáz-Andreu 2005; Sørensen 2006). Where

preservation is good, it may be possible to conduct stylistic and technological analyses on textiles. More durable items of adornment, such as jewelry, amulets, or emblems associated with occupations, offices, genders, and age groups may also be examined to determine their origin and style (Joyce 2007). In Nubia, these object classes are most often seen in mortuary contexts, such as at Abu Fatima (see Chapter 5).

Cultural identity is also manifested in various architectural forms, including public, domestic, and funerary structures. Both architectural style and construction technologies are often culturally specific, but one or both of these may change as a result of societal interaction (Cameron 1998; Neuzil 2008). In addition, the contents of those structures also inform our understanding of cultural identity. In the case of domestic structures, flaked stone, ground stone, and ceramic assemblages are informative (Bowser 2000; Sackett 1982), in addition to other household items such as tools used in craft production (Clark 2001). In funerary contexts, identity may be expressed not only through tomb architecture, but also through burial position, body treatments, and grave goods (Meskell 1999; Smith 2003a).

Archaeological research contributes to understanding of the interplay between colonialism and the construction and transformation of cultural identities for several reasons. First, it generates multiple sources and classes of data that are independent from, and complementary to, historical accounts that may be ideologically charged or incomplete. In this way, archaeological data provide insight not only into the conscious communication of identity in colonial contexts, but also into unconscious everyday practices that structure daily life. Second, archaeological perspectives allow for a deeper understanding of ancient, non-Western, and non-capitalist colonial processes (Dietler 2005; Stein 2005) and the ways that identities change as a result of those processes. Finally, archaeological investigation

provides a diachronic perspective on the relationship between colonialism and identity, highlighting the transformative effects of that relationship.

D. Practice Theory, Structuration, and Agency

Social and cultural identities are constructed, maintained, or renegotiated in a variety of ways. Identity formation can be the result of conscious effort by individuals to assert or convey group membership, or it can arise organically through repetition of the behaviors that make up daily life. Moreover, identities are dynamic. Once formed, they must be constantly reasserted, renegotiated, and adapted to particular social contexts. Because group identities are part of larger social systems, however, their expression must adhere to the norms and expectations of the groups to which they belong. In order to bridge the gap between these social structures and the individual agents who live within them, it is useful to turn to the work of social theorists such as Pierre Bourdieu and Anthony Giddens.

Bourdieu (1977, 1987) and Giddens (1984) posit that institutions existing within a given society, and the activities that individuals carry out within those institutions, are governed by explicit or implicit societal rules. As such, actions performed by the members of a social group are, to some extent, confined to what is considered acceptable behavior within that group—their *habitus*. But because social norms are defined by group members to begin with, individual agents within a society have the ability to perpetuate, reject, or amend the norms that structure their behaviors. In other words, it is not social institutions that determine human activity, at least not to any degree of totality. Rather, it is individuals and groups of people who mold their social institutions, and they achieve this by way of seemingly mundane daily practices, such as modes of dress, foodways, the exchange of goods and information, and the manufacture and use of objects.

Some have critiqued Bourdieu for failing to recognize the agency of individuals in transforming their *habitus* (e.g., Meskell 2001; Stone 2003), though this claim has recently been under scrutiny in the archaeological literature (e.g., Smith 2017). In any case, if Bourdieu falls short, Giddens' theory of structuration picks up the pieces. Although Giddens (1984) accepts that societies operate within the confines of an overarching structure, he also recognizes that individuals actively produce, reproduce, and change that structure—that is, their *habitus*—through their choices and behaviors. Archaeologically, these choices and behaviors are represented in the objects left behind by the individuals who made and used them.

Objects, and the activities associated with them, constitute *habitus* in two primary ways. First, they can serve as passive markers of habitual, culturally embedded activities (Bourdieu 1977; Giddens 1984; Gosselain 1998; Hafsaas 2007). In this way, objects and practices are structured by a person's enculturative background, thereby reinforcing and reproducing his or her cultural identity. Examples of such cultural markers include technological styles associated with domestic architecture and the production of various tools and utilitarian ceramics (Clark 2001; Lemonnier 1986, 1989; Neuzil 2008), as well as food storage, preparation, and presentation (Pauketat 2001). These objects and activities are not consciously intended to signal messages to outsiders, but they indicate group affiliation nonetheless because they are deeply embedded in daily life.

Unconscious habitual behaviors are useful in gauging group identities archaeologically because these behaviors serve as the "guiding principle of people's 'practical knowledge' which in turn generates their classificatory schemes and perceptions of the surrounding world—in short, their *habitus*" (van Dommelen and Rowlands 2012: 22). Such practices

may be evident in the production techniques and morphology of utilitarian ceramics such as cookwares and storage vessels. Since these objects are rarely accessible to individuals outside a single household, they tend to change more slowly than more visible classes of artifacts because they have less potential to broadcast stylistic 'messages' of group affiliation to anyone outside the household group (Neuzil 2008; Wobst 1977). For similar reasons, construction techniques and internal divisions of space in domestic structures may also constitute unconscious markers of *habitus* and, therefore, identity (Neuzil 2008). Just as potters become enculturated to a particular technological style, builders also become enculturated to particular building techniques and materials (Cameron 1998). Moreover, architectural plans and the organization of buildings both reflects and shapes social values because buildings are the arenas in which all manner of daily practices and social interactions take place. These kinds of implicit identity markers are most readily visible in settlement contexts, as these settings exhibit the material remains of everyday life.

The second way in which objects and behaviors constitute the life-worlds of individuals and groups is that they can help create and manipulate overt symbols of identity that express conceptualizations of self and other, communicate ideological messages, engender negotiations of status, and facilitate assertions of alliance or resistance (Appadurai 1986; Bowser 2000; Dietler 2005, 2010; Insoll 2007; Jones 1997, 2007). This is made possible through the consumption of particular objects and ideas and the rejection of or indifference to others, a concept that will receive more in-depth treatment in the following section. This perspective is especially useful in understanding intercultural interactions because such interactions often occur in contested zones, where the social identities of individuals and groups become especially significant. Objects and practices are fixed firmly within these

processes because they materialize cultural frameworks, embody cultural categories, enable negotiations and interactions, and structure perceptions of self and other (Dietler 2010). Thus, when people make conscious choices to consume particular objects or engage in particular behaviors, they do so as a means of creating or reinforcing their sense of self. The fact that these objects and behaviors tend to be highly visible renders them excellent markers of cultural affiliation because they are likely to be encountered by both in-group and out-group members (Wobst 1977). Such overt markers of identity can be particularly visible in mortuary contexts, in which communities commemorate the deceased in ways that convey conspicuously the individual's social and cultural group membership.

It is, of course, impossible to gain real insight into the psychological processes of ancient populations; to do so would require the kind of ethnographic research that is conducted among living populations by sociocultural anthropologists. However, by exploring the explicit markers of identity that are expressed through overt display, alongside the implicit and unconscious identity markers that constitute the daily lived experience, it is possible to attain at least some understanding of the various groups to which individuals residing in a community may have belonged. Such an understanding can be achieved, in part, through an examination of consumption patterns and the ways in which objects and cultures become entangled.

E. Consumption and Entanglement

The concept of consumption as it relates to archaeological inquiry extends beyond its microeconomic connotations—that is, it does not refer simply to the supply and demand of goods. Moreover, the demand for goods has no necessary correlation to their availability (Dietler 2005). Instead, consumption should be viewed here as a culturally contingent,

socially oriented process (Dietler 2010). This is because the consumption of objects and even ideas necessarily entails the choices of individual agents operating within particular social contexts. As discussed in the preceding section, individuals make such choices as a result of two primary factors: 1) the desire for objects based on unconscious preferences formed through being embedded in one's *habitus*, and 2) the desire for objects or classes of objects based on deliberate efforts to gain social capital or to assert membership in a given group. Viewed in this way, consumption can be understood as a symbolic action resulting from culturally informed preferences, not for just *any* goods, but for *particular* sets of goods. Moreover, it is essential that those goods have some degree of cultural relevance in the setting in which they are consumed.

These concepts hold especially true in colonial and other settings characterized by intercultural contact. It cannot be assumed that individuals or groups participating in the exchange of goods across cultures will aspire to adopt the entirety of a foreign entity's material culture. This phenomenon has been demonstrated time and again by researchers who have critiqued Hellenization, Romanization, and Egyptianization models of interaction and culture change (e.g., Dietler 2005, 2010; Smith 1998; van Dommelen 1997). Indeed, these studies have shown that it is almost always specific items that are sought and subsequently incorporated into the local repertoire. Such examinations have also demonstrated that foreign goods may be desired for a variety of reasons: because they are viewed as 'exotic' and therefore prestigious or intriguing, because their consumption can exhibit the colonizer's dominion over the society where the objects originate, or because colonized communities wish to build or maintain social standing in the eye of their colonizers. In any case, non-local goods are only desired when they are deemed to have

meaning or utility within the consumer's own cultural milieu. Only then can such objects can become entangled with local traditions and practices, and only then can they become integral to the formation and transformation of identities.

In examining the negotiation of identities, however, it is not sufficient merely to recognize that foreign goods were consumed within a given society. This fact may serve as an important starting point for further investigations of foreign contact and exchange, but without additional lines of evidence it can tell us little more than that direct or indirect contact occurred. The presence or absence of imports alone cannot inform us as to the *meanings* of those items in their new context. Neither is it sufficient simply to calculate the ratio of imported to indigenous objects in an attempt to quantify the degree of culture change within a particular community with connections to a foreign culture (Silliman 2009). Not only is such an approach overly simplistic, it also fails to take into account the complex transformative effects of cultural appropriation and strips individual actors of their agency.

We should instead strive to view the consumption of foreign goods and ideas as "a continual process of selective appropriation and creative assimilation according to local logics" (Dietler 2010: 60). Thus, rather than viewing the presence of Egyptian objects in Kerma contexts as an attempt to imitate or adopt Egyptian culture, we should shift our focus toward investigating the *particular* goods desired in those communities and the ways in which they were integrated into existing cultural and social frameworks in a process of cultural entanglement (Thomas 1991). In addition, we should consider the ways in which Egyptian objects acquired new meanings and became associated with new practices through the creative agency of the individuals who appropriated them.

It is now widely accepted that culture change often stems from interregional contact and exchange. However, what is still too often overlooked is the fact that the transformative effects of cross-cultural interaction on lifeways and, ultimately, identities, may be experienced differentially by rural and urban dwellers, elites and non-elites, women and men, old and young, or other social groups that crosscut societies. As noted above, societies engaging in cross-cultural exchange do not adopt foreign objects and ideas indiscriminately but instead creatively appropriate and recontextualize with new meanings, categories, uses, contexts, associations, and cultural and economic values (O'Connor 1993; Thomas 1991; van Dommelen and Rowlands 2012). By imbuing these items with new meanings and values, they inevitably become culturally entangled, making them neither entirely foreign nor entirely indigenous (Silliman 2016).

It is therefore crucial for the researcher to consider that such entangled objects may have become embedded in local traditions, becoming commonplace over time. In this way, objects that were once foreign or 'exotic' become no longer distinguishable to their owners as being of foreign origin or influence (Silliman 2015). This phenomenon in turn transforms how individuals and communities conceptualize their own identities and the identities of others, as well as the ways in which those conceptualizations are materialized physically and behaviorally in the long term (Dietler 2010; Smith 2014).

F. Research Objectives and Hypotheses

The objectives of this dissertation are threefold: 1) to investigate the extent of Egyptian presence and/or influence at Hannek and Abu Fatima during Kerma expansion and dominion and during the Egyptian occupation of Upper Nubia; 2) to evaluate the relative importance of local and foreign cultural traditions in the expression of cultural identity both

before and during Egyptian occupation of the region; and 3) to evaluate the extent to which intercommunity materializations of cultural identity within the region differed. The research explores how these expressions of group membership are manifested in rural settings as compared to the urban centers of Kerma and Sai. It also examines how such materializations differ from or mirror other communities within the Kerma hinterlands, such as Gism el-Arba (Gratien 1997, 1999) and sites in the Wadi el-Khowi (Welsby 2001). To address these objectives, several lines of evidence are presented, including ceramic and lithic assemblages, faunal and botanical remains, architectural features, and a range of items used for bodily adornment, such as beads, jewelry, clothing, and other personal accouterments. It should be noted that the discussion of botanical remains is brief, given the limited size and scope of the available samples. Because social and cultural identities are multifaceted and contextually contingent, it is crucial to consider these multiple lines of evidence in order to gain the broadest understanding of how identities are performed in the course of daily life as well as in mortuary ritual.

To approach these issues, I propose three hypotheses and expectations related to the long-term colonial interactions between the Egyptian and Kerman states and how those interactions transformed both local conceptualizations and expressions of cultural identity both before and after the Egyptian conquest of Nubia. These hypotheses and their respective material correlates are also summarized in Table 2.

Hypothesis 1. *Rural Kermans developed an affinity for Egyptian objects and styles as Nubian-Egyptian interactions intensified, so much so that the local community ultimately assimilated to Egyptian lifeways*. There is evidence that the Kerma capital was visited by Egyptians and may have been home to Egyptian expatriates early in this period (Williams

2006). It is expected, however, that between 2500 and 2000 BC, during the formation and solidification of the Kerma state, small communities such as Hannek were not likely home to Egyptian residents. Rather, this hypothesis addresses the possibility that the indigenous population of Hannek practiced Egyptian lifeways and consumed Egyptian material culture after Egypt began to take hold of Upper Nubia. Even if no Egyptians established residence in the Kerma hinterlands, it is possible that rural Nubians chose or were obligated to adopt Egyptian ways of life as part of the larger colonial program as occurred elsewhere in Nubia (Gratien 1997). Assimilation such as this would have constituted a lengthy process of culture change, both in practices and in material culture, but because Hannek and Abu Fatima were both in use during the later part of the Kerma period, they are well suited to evaluating this hypothesis.

It is also expected that leading up to and during the Egyptian occupation of Nubia, Egyptian presence and/or influence in hinterland communities intensified, occurring as an influx of trade goods manufactured either in Egypt or at Egyptian settlements in Nubia. Evidence for this phenomenon in the form of Egyptian serving and storage ceramics, administrative seals, protective amulets, and beads is available currently only for larger communities, such as at Tombos (Buzon et al. 2007; Smith 2003a, 2013), located directly across the river from Hannek, as well as at Sai and the Kerma capital (Lacovara 1987, 1997). This phenomenon is also apparent in the settlements at Gism el-Arba, especially in the ceramic assemblage and the architectural repertoire (Gratien 1997; Gratien et al. 2002). It is possible that similar processes also occurred at Hannek and Abu Fatima, where there is preliminary evidence for occupation during the Egyptian colonization of Nubia.

To support this hypothesis, it will be necessary to demonstrate the following: 1) that the populations of Hannek and Abu Fatima had access to Egyptian imports or goods made in Egyptian colonies, either through direct trade or indirectly via regional centers at Sai, Kerma, or Tombos; 2) that the frequency of Egyptian goods and/or influence at these two sites increased between 2500 and 2000 BC, alongside the development and consolidation of the Kerma state; and 3) that individuals at Hannek and Abu Fatima replaced Kerma objects and practices with Egyptian ones near the end of the Kerma period and, at Hannek, following the Egyptian conquest in 1502 BC. It should be noted that individuals of higher status might have had greater access to foreign goods than those of lower status. In such a case, we would expect to find more Egyptian objects in wealthier houses and burials and fewer or no Egyptian objects in lower status contexts.

Hypothesis 2. *Rural Kermans developed an affinity for Egyptian objects and styles as Nubian-Egyptian interactions intensified, and as a result, the local community blended Egyptian traditions with indigenous ones to create a new entangled set of cultural practices.* This hypothesis addresses the possibility that under Egypt's five century long colonial program, Egyptian ideologies and cultural traditions became integrated into local conceptualizations of identity, forming a unique set of combined cultural practices and symbols (Silliman 2015). The Kerma state dominated Nubia and Egypt between 1680 and 1500 BC, and it is likely that they would have resisted Egypt's attempts to usurp control of this expansive territory near the end of this period. However, Egypt and Kerma had maintained a strong trade relationship for centuries, meaning that Egyptian material culture had long been a part of assemblages at Sai, Tombos, Kerma, and at sites as far south as the Fourth Cataract by the time Thutmose I conquered Nubia. It is therefore possible that the

presence of Egyptian objects at Hannek and/or Abu Fatima reflects more than just trade activities. Rather, it may reflect a process through which Nubian populations transformed the local cultural milieu by enmeshing particular Egyptian objects and ideas within local traditions. Because evaluation of this hypothesis entails a diachronic perspective on cultural traditions at rural Kerma sites, it is crucial that we examine both the Abu Fatima cemetery, which spans the Kerma period, as well as the Hannek settlement, which was occupied during the later phases of the period as well as during the Egyptian occupation.

If rural Kermans combined elements of both Egyptian and Nubian practices and material culture in innovative ways, then we would expect to find both foreign and local objects at the site, as well as objects, technologies, or iconography that incorporate mixed elements of Egyptian and Nubian cultural traditions (Dietler 2010; Neuzil 2008). For example, decorated ceramics may exhibit motifs that were adapted from Egyptian forms but arranged in new ways on the surface of the vessel so as to be aligned with the local aesthetic (Lyons 2003). We may also expect to find ceramic types that were made locally but are morphologically similar to Egyptian vessel forms. Architectural styles, construction techniques, and divisions of space may reflect local building traditions, while assemblages within structures may contain objects of Egyptian or Egyptian colonial origin (Cameron 1998; Clark 2001). In addition, tomb style and burial practices may adhere to Kerma tradition while incorporating Egyptian-style iconography, grave goods, or body treatments (Bonnet 2004; Kendall 1997). These kinds of patterns appear at the nearby site of Tombos, where the PI conducts ongoing research. Tombos may therefore serve as a salient case study against which to compare the archaeological material from both Hannek and Abu Fatima.

To support this hypothesis, it will be necessary to demonstrate the following: 1) that occupants of Hannek and/or Abu Fatima had access to Egyptian objects and/or iconography, either directly or indirectly via regional centers at Sai, Kerma, or Tombos; 2) that incorporation of Egyptian traditions into local material culture, architecture, foodways, burial practices, and/or iconography increased between 2500 and 1000 BC; and 3) that particular Kerman traditions persisted alongside Egyptian influence. It should be noted that we would expect to find more Egyptian objects in higher status houses and burials and fewer or no foreign objects in those of lower status individuals, as those of higher status would have gained access more easily to foreign goods and concepts (Emberling 2014; Schrader 2015).

Hypothesis 3. *Rural Kermans adhered to their Kerman identity, even during the periods of Egyptian control in Nubia, maintaining local lifeways and consuming local goods without incorporating Egyptian influence into the cultural milieu.* Polarizations of cultural affiliation tend to be most striking in contexts where groups of differing cultural backgrounds engage in competition and conflict (Jones 2007; Smith 2003a). This hypothesis addresses the possibility that indigenous communities at Hannek and Abu Fatima maintained their Kerman lifeways and identities and were removed from interactions between the Kerman and Egyptian states. As Welsby has noted, "there is no reason to suppose that the arrival of the Egyptians in [Upper Nubia] had much effect on the rural settlements occupied by Kerma farmers, and the Kerma culture may have continued for some considerable time" (2001:590). It is possible that those living at Hannek, and burying their deceased at Abu Fatima, did not establish contacts with Egypt, resulting in the persistence of local traditions despite the changes occurring in urban locales.

Ceramic assemblages from Sai and the Kerma center indicate that although Egyptian imports into the region increased over time, they constituted a small fraction of the overall assemblage until some time after the Egyptian conquest in 1502 BC, when Kerma material culture disappears from the archaeological record at these locations (Gratien 1978; Lacovara 1987). At the remote site of Gism el-Arba, however, evidence indicates that many Kerma traditions, including ceramics, architecture, jewelry, tools, iconography, and administrative paraphernalia persisted, even after the conquest (Gratien 1999). At Tombos, too, there is evidence that Nubian-style flexed burials and Nubian ceramic traditions persisted in spite of Egyptian encroachment (Smith 2003a).

Thus, if other hinterland communities maintained their Kerman identity following the Egyptian occupation of Upper Nubia, then we might expect similar patterns to have occurred at Hannek and Abu Fatima. In such a case, we would expect to see an absence of Egyptian objects, stylistic motifs, and ideological influence in both household and burial contexts at these sites. It is expected that indigenous groups would have persisted in their consumption of local goods and adhered to established practices and ideologies that were distinctly Kerman (Smith 2003a), meaning that we should see a stark difference between assemblages at Hannek and those in which Egyptian objects and practices replaced or were integrated into local traditions in terms of subsistence and production activities, ceramic styles, burial practices, iconography, modes of personal adornment, and architectural styles and divisions of space.

Table 2. Hypotheses tested as part of the current research, along with their expected archaeological correlates.

Hypotheses	Material Correlates
1. Rural Kermans developed an affinity for Egyptian objects and styles as Nubian-Egyptian interactions intensified, so much so that the local community ultimately assimilated to Egyptian lifeways.	• Access to Egyptian imports • Increase in Egyptian goods, practices, and/or influence over time • Replacement of Kerma practices and material culture with Egyptian ceramics, jewelry, tools, administrative paraphernalia, architecture, burial treatment, and iconography leading up to and following Egyptian conquest
2. Rural Kermans developed an affinity for Egyptian objects and styles as Nubian-Egyptian interactions intensified, and as a result, the local community blended Egyptian traditions with indigenous ones to create a new entangled set of cultural practices.	• Access to Egyptian imports • Persistence of local traditions alongside Egyptian influence • Locally made ceramics that combine Kerman and Egyptian forms and decoration • Kerma-style architecture that contains Egyptian or mixed Nubian-Egyptian artifact assemblages • Kerma-style burials that incorporate Egyptian-style iconography, grave goods, and/or body treatment
3. Rural Kermans adhered to their Kerman identity, even during the periods of Egyptian control in Nubia, maintaining local lifeways and consuming local goods without incorporating Egyptian influence into the cultural milieu.	• Persistence of Kerma-style ceramics, architecture, jewelry, tools, iconography, administrative paraphernalia, and other material culture both before and during the Egyptian colonial period • Close and consistent alignment of foodways, burial treatment, and other practices typical of Kerma communities • Absence of Egyptian goods, iconography, architecture, and burial treatment both before and during the Egyptian colonial period

As will be demonstrated in the following chapters of this dissertation, multiple lines of evidence from the Hannek settlement and the Abu Fatima cemetery suggest on the whole that the two local communities did in fact largely adhere to Kerma cultural practices, with a few notable exceptions. It is, however, interesting to note that test excavations in the post-Kerma period cemetery adjacent to the settlement at Hannek shows some degree of Egyptian influence in both burial style and grave inclusions. These results will also be discussed briefly in the subsequent chapters. To support this hypothesis, it will be necessary to demonstrate the following: 1) that material culture, architecture, and culinary preferences at Hannek, and funerary practices at Abu Fatima, aligned closely with Kerma traditions, which are known from larger sites such as Sai and Kerma and smaller sites such as Gism el-Arba

and those in the Wadi el-Khowi, both before and during Egyptian colonization; and 2) that occupants of Hannek and Abu Fatima did not incorporate Egyptian practices or material culture into their daily lives at either a profound or superficial level before or during Egyptian conquest.

Beyond addressing the hypotheses outlined above, there are a number of other issues that can be addressed by investigating colonial interactions at Hannek and Abu Fatima. For example, the research serves to better our understanding of both burial practices and everyday activities in rural communities within the Kerma domain. Funerary practices are useful in addressing questions of commemoration and individuality in the archaeological record, while settlement contexts are essential to examining the day-to-day activities of individuals and groups through the investigation of public and domestic structures, including insights into craft production, culinary practices, subsistence, and other aspects of daily life. In addition, the research facilitates a deeper understanding of potential changes in diet, health and disease, and interpersonal violence coinciding with diachronic fluctuations in the local political climate. As a result, it is possible to gain a more detailed look at how individuals lived their lives as well as how they were commemorated after death, even if we are unable to gain insight into the thought processes of ancient peoples.

Moreover, this research affords the opportunity to illuminate how rural Kerma communities experienced the effects of colonialism compared to their urban counterparts. Aside from Welsby's regional survey of the Wadi el-Khowi (2001), Gism el-Arba is the only rural Kerma site to have been thoroughly examined (Gratien 1997, 1999; Gratien et al. 2002). Excavations at Hannek and Abu Fatima provide a diachronic perspective encompassing the entirety of the Kerma period as well as the subsequent period of Egyptian

encroachment. The project augments present knowledge of how settlements in the hinterlands were integrated into the larger dialectics of power that resulted from long-term interactions between Egypt and the Kerma metropole.

G. Summary

The remainder of this dissertation will employ the frameworks of culture contact, identity, practice theory and structuration, and consumption to interpret the impacts of Kerman-Egyptian power struggles in the Kerma hinterlands. These theoretical perspectives will inform the investigation of the ways in which quotidian practice and the consumption of local and foreign goods molded, and were molded by, local conceptualizations of cultural and social identities. An understanding of these processes will be achieved through the analysis of a range of object classes, including ceramics, lithic tools, architecture, clothing and jewelry, and food remains. As outlined in the above hypotheses, long term contact with and eventual colonization by Egypt may have resulted in 1) the assimilation of hinterland communities to Egyptian material culture and traditions; 2) the entanglement of local and foreign objects and cultural practices; 3) the rejection of or indifference to objects and traditions of foreign origin, with a focus on adherence to Kerma lifeways. The following chapters will address these hypotheses as I examine cultural continuity and change that is evident in multiple artifact classes at the Hannek settlement and Abu Fatima cemetery sites.

IV. Excavations at Hannek and Abu Fatima: The Project and Its Collections

A. Introduction to the Chapter

In order to address the question of the extent to which Nubian-Egyptian interactions during and immediately following the Kerma period altered material culture, lifeways, and identities in hinterland communities, excavations were conducted during the 2015 and 2016 field seasons in the cemetery at Abu Fatima and in the settlement at Hannek. The Abu Fatima cemetery spans the entirety of the Kerma period (ca. 2500-1500 BC) before apparently falling into disuse until well after the Egyptian occupation of Nubia. The Hannek settlement dates primarily to the Classic Kerma phase (ca. 1700-1500 BC), with ceramic and radiocarbon evidence for Middle Kerma (ca. 2050-1700 BC), New Kingdom (ca. 1500-1080 BC), Napatan (ca. 760-300 BC), and Christian period (ca. AD 500-1323) occupation. Test excavations were also conducted in 2015 in a post-Kerma period cemetery adjacent to the Hannek settlement, which appears to date to the New Kingdom and the Napatan period.

This chapter discusses the multiple lines of archaeological evidence from both sites, situating each class of evidence within its specific context as a means of facilitating a community-level scope of analysis. First, the methods used in conducting the excavations themselves will be described. Following the project description, the types of material evidence documented at Hannek and Abu Fatima will be discussed, including architectural features; ceramic and lithic assemblages; faunal and botanical remains; clothing, jewelry, and other items of personal adornment. Finally, the results of radiocarbon dating of samples from each site will be presented.

B. Excavations and Material Evidence at Hannek and Abu Fatima

1. Excavation Methods at the Hannek Settlement

During the 1997 and 1998 field seasons, Smith (2003c) and his colleagues conducted a systematic pedestrian survey of the northern and central portions of the Dongola Reach, which included Hannek and its environs, in addition to more than 100 other previously unrecorded sites. Sites within the study area were dated within the established regional chronology based on two primary lines of evidence. First, diagnostic characteristics of artifacts such as ceramic vessel rims, handles, bases, and decorated sherds as well as groundstone and flaked stone implements, were analyzed. Second, architectural remains visible on the surface were used to determine the time period during which the sites were occupied. Smith concluded, based on this preliminary analysis, that the area encompassing Hannek was occupied intermittently from the Neolithic period (ca. 5000-3000 BC) through the Islamic period (ca. AD 1317-1885). As will be discussed in greater detail below, the settlement area of Hannek that forms the basis of this dissertation dates to the later part of the Kerma period through to the Napatan period.

Despite the presence of Egyptian-style ceramics collected at many of the sites investigated during the original survey, Smith found no evidence for either Egyptian-occupied colonies or for the pervasive assimilation to Egyptian material culture that came to characterize Lower Nubia in the north (Smith 2003c), even during the New Kingdom. These findings corroborate patterns noted in earlier reconnaissance surveys elsewhere in the Dongola Reach (Reinold 1993; Grzymski et al. 1987; Welsby 1996). These patterns suggest that life in the Kerma hinterlands was substantially different from life in the urban centers of

Kerma and Sai. Furthermore, it seems that life at Hannek differed even from that of other hinterland communities, such as Gism el-Arba and settlements in the Wadi el-Khowi.

The 1997 and 1998 survey findings were used to implement a program of systematic excavation at the Hannek settlement that began in 2015 and concluded in 2016. Based on pedestrian survey carried out prior to and during the two field seasons, the site appears to measure approximately 1.5-2 hectares. A total of 23 excavation units were placed using intuitive selection, which was based on three primary factors: 1) the density of surface artifacts, especially those with Kerma or Egyptian characteristics; 2) the presence of identifiable or possible features visible on the surface, such as architectural remains, hearths, or pits; and 3) relationship to the natural landscape, such as naturally occurring rock enclosures or areas sheltered from prevailing winds and sandstorms (Figure 2). The location of excavation units was also placed so as to provide adequate coverage of the occupied portions of the site. All but two units were placed in relatively open areas and were thus given arbitrary dimensions of 5x5m. The remaining units measured slightly larger (7x7m and 8x8m respectively), due to the natural dimensions of the granite outcrops enclosing the areas to be excavated.

Excavation was conducted using primarily broad-exposure brushing. This method is the regional standard for settlement sites, as wind erosion often creates archaeological palimpsests with shallow deposition, and brushing renders features and architectural plans more visible with little risk of damage or destruction. Broad-exposure excavations indicated that the site had been subject to deflation, resulting in shallow stratigraphy and few reliably definable features. However, trowels were used to delineate more durable contexts where such features were extant, such as in and around portions of the granite outcrop. All units

were excavated according to natural stratigraphy, and all soils were screened using one-eighth inch mesh. One-liter soil samples were collected for botanical analysis from all possible hearth features and other burned areas. In addition, a total station was employed for the purpose of recording the provenience of architectural remains and other features, as well

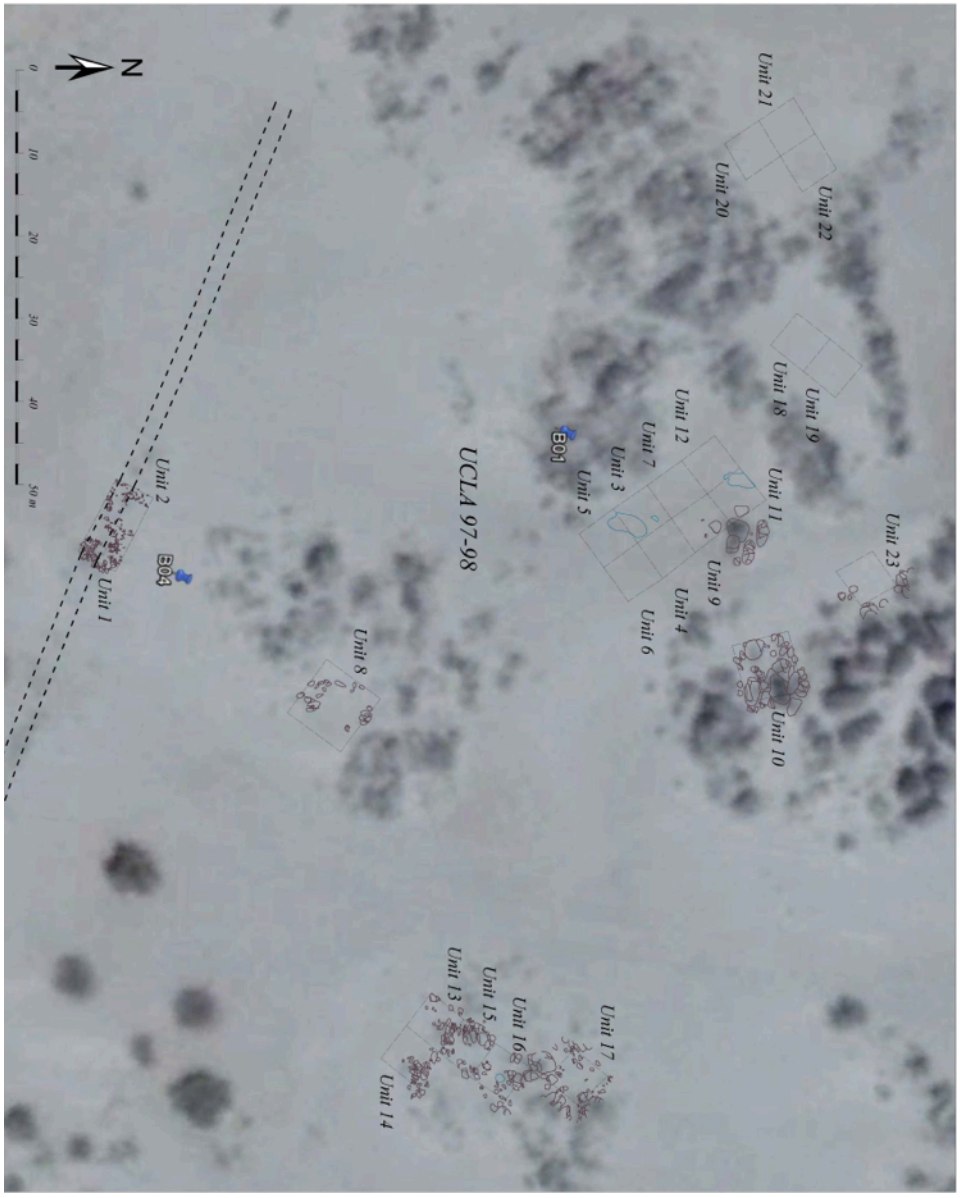


Figure 2. Aerial view of the Hannek settlement (UCLA 97/98) and plan drawing of all excavated units. Parallel lines running northwest-southeast represent a low stone fence that may be of modern origin. Drawing by Nadejda Reshetnikova.

as several notable artifacts discussed later in this chapter. After thoroughly examining the site for any additional activity areas that may have been overlooked previously, it was concluded that no other areas of the site were likely to be fruitful for excavation, and all work was completed.

2. Feature and Artifact Classes at Hannek

Architectural style and construction methods can be used to document local vs. foreign occupation, and tool technology and style can also yield evidence for cultural affiliation. Kerma domestic structures outside the city center are circular single-room structures averaging 3-5m in diameter. Early houses were constructed of mud over wooden frames set into postholes, while later houses were often built using *jalous* (mud mixed with organic matter) or mudbrick (Emberling 2014). Public structures may be circular or rectilinear in plan and were constructed using *jalous*, mudbrick, or in later phases, fired bricks. Kerma-style architecture is also characterized by semicircular open courtyard surrounded flanked by a main room and several subsidiary rooms (Gratien 1997, 1999; Welsby 2001). Egyptian-style domestic structures, on the other hand, are rectilinear and constructed of mudbrick, fired brick, or stone blocks (Bonnet and Valbelle 2006), usually following a linear tripartite plan. These aspects differ from Kerma style houses in that the latter tend to be agglutinated structures with central courtyards (Gratien 1997; Welsby 2001).

In addition, ceramic assemblages can provide evidence for culinary practices, both in terms of the kinds of food consumed and in terms of the style of vessels used for cooking, serving, and consuming foods. Kerma pottery is characterized by hand built forms made from Nile silt paste, a large percentage of which are black-topped red wares. Utilitarian types are often roughly made and tempered with organic matter, while serving vessels are

extremely fine and highly polished. Decorative styles include geometric motifs exhibiting incised lines, raised dots, and punctate designs, usually concentrated at the rim. A variety of forms are common throughout this period, and include several types of bowls, cups, jars, and jugs. In contrast, Egyptian pottery is characterized by both marl and Nile silt pastes tempered with sand, chaff, or ground limestone (Smith 1995, 2003a). Egyptian ceramics are wheel-made, and the typical repertoire includes several types of bowls, jars, jugs, amphorae, pilgrim flasks, and bread molds. Decorative styles are numerous and include painted floral, vegetal, and animal motifs, painted and incised geometric patterns, and various molded appliqués. Because the chronology of Nubian pottery is well established (e.g., Gratien 1978; Lacovara 1987, 1997), the ceramic assemblage was used as the primary method of dating architecture and other features, though dates were also derived from radiocarbon samples (see below). A wide range of vessel types exhibiting both Nubian and Egyptian styles are present in the assemblage and were subjected to typological analysis conducted by the author along with trained assistants. Qualitative and quantitative analyses of these types is presented in Chapter 5.

Foodways are also useful in ascertaining cultural affiliation. The examination of culinary practices in hinterland communities can provide insight into the practices of those engaged in intercultural contact by investigating not only food preparation methods, but also the particular foods that community members consumed. In this way, it is possible to gain an understanding of local agency and patterns of consumption, whether it is the literal consumption of foods or, in a more figurative sense, the consumption of goods and ideas. The bulk of Nubian cuisine consisted of stews and porridges, and there is evidence that sorghum and millet-based beers played a prominent role in Nubian foodways (Haaland

2007; Pope 2013). Egyptian culinary traditions, on the other hand, were centered around breads, cakes, and other oven-baked foods. Beer was also important in Egyptian foodways but was brewed from wheat and barley. Although the soil samples collected from the Hannek settlement yielded only minimal botanical remains, the results of their analysis are discussed in Chapter 6. Faunal remains, while fragmentary, were ubiquitous in all contexts and yield considerable insight into culinary practices at the site. A summary of the faunal analysis is also presented in Chapter 6. Both faunal and botanical analyses were conducted by trained specialists according to regional and methodological standards.

Jewelry and other items used for personal adornment can also aid in determining the extent of Egyptian influence at Hannek. Nubian-style jewelry is characterized by cowrie shell and ostrich eggshell beads, flat and drop-shaped ivory or stone pendants, and ivory bangle bracelets and/or hoop earrings (Smith 2003a). In contrast, Egyptian-style jewelry includes items such as stone bangle bracelets, short necklaces made from ceramic and/or stone beads, and religious amulets carved in the form of protective or patron deities (Smith 2003a). Jewelry and other such items are, as a matter of course, more abundant in mortuary contexts than in settlements, but a number of such items were recovered from multiple contexts at Hannek. These items were analyzed by the author and are discussed in greater detail in the following chapter.

In addition to the object classes described above, a range of other artifact types are also diagnostic in identifying the cultural affiliation of their owners, including stone vessels, lithics and other tools, weapons, and seal stones (Bonnet 2004; Lacovara 1997; Smith 2003a; Williams 2006). Of these categories, the only type documented at the Hannek settlement is flaked stone tools and debitage, which were ubiquitous in all areas of the site.

The lithic assemblage represents a wide range of tool types that were first subjected to typological analysis by the author, discussed later in the current chapter. This preliminary analysis was then followed by statistical analysis, which is outlined in Chapter 6.

3. Excavation Methods at the Abu Fatima Cemetery

The cemetery at Abu Fatima was chosen for archaeological investigation based on threats posed to the site's integrity by modern alluvium mining activities by the local community. It became clear upon initial inspection of the site that at least some portion of the ancient remains had been damaged at best, and at worst destroyed. Thus, the 2015 field season at Abu Fatima consisted primarily of surface examination and test excavations to determine the extent of damage to the site and to identify the areas most promising for archaeological salvage operations.

Once these areas were identified, a 10x10m grid was established, and broad-exposure brushing of the surface was implemented to better expose possible grave structures, which tend to appear as slight indentations in the surface soil, and to document all surface artifacts. Trowels, brushes, and hand scoops were used to delineate the boundaries of individual grave structures and to excavate fill. All units were excavated according to natural stratigraphy, and all soils were screened using one-eighth inch mesh. As part of the test excavation program, seven burial structures containing a combined total of nine individuals were excavated and documented. At least five additional burial structures were identified in the immediate area but were not excavated due to time constraints. Types and styles of pottery, lithic tools, jewelry, and other personal items such as leather sandals and ostrich feather fans indicated that the cemetery spans all phases of the Kerma period.

Investigations were expanded at the Abu Fatima cemetery in 2016 based on the data gathered during the 2015 test excavations. The original 10x10m units were reestablished, and broad-exposure brushing was conducted once again to remove surface debris that had accumulated during the prior year. Following these steps, previously unexcavated grave structures within the two original test units were identified and excavated. Three additional 10x10m units were also established over the course of the field season, each of which contained multiple burial structures that were identified and fully or partially excavated (Figure 3). As in the previous season, grave structures were excavated using brushes, trowels, and hand scoops. Any structures that were unable to be completed due to time constraints were covered in sheets of plastic at the level reached and backfilled so that work could resume the following season. The results of excavations subsequent to the 2016 season are not discussed in this dissertation but will be made available in future publications.

2. Feature and Artifact Classes at Abu Fatima

In mortuary contexts, it is useful to document funerary architectural style and construction methods, the number and types of funerary objects, and burial customs such as body position, orientation, and treatments. Kerma-style funerary architecture consists of round or ovoid tumulus (burial mound) superstructures covered with concentric rows of black and white stones, and burial practices include flexed burials wrapped in animal hides and placed on wooden beds at the bottom of a circular or rectilinear tomb shaft (Gratien 1978). Grave goods include Kerma-style pottery, jewelry, clothing, tools, ostrich feather

Figure 3. Aerial view of the Abu Fatima cemetery (UCSB 003) and all excavated units. Drawing by Nadejda Reshetnikova.

fans, animal hides, bucrania (ox skulls), and in some cases human and animal sacrifice (Bonnet 2004; Honegger 2004).

Egyptian funerary architecture is characterized by rectilinear structures with attached funerary temples. Individuals in Egyptian burials are laid on their backs, with the body mummified and placed in a coffin. Carved scarabs and other amulets, ceramics, jewelry, and in the case of elite burials, humanoid figurines called *ushabtis* (Smith 2003a), are often included as grave goods. Egyptian iconographic influence is visible through the use of depictions of Egyptian deities, winged sun disks, pharaonic iconography, and hieroglyphic inscriptions (Williams 2006). When analyzed alongside contemporaneous settlement data, these findings can facilitate a more detailed understanding of how changing political and social climates resulting from colonial interactions impact assertions of cultural identity, in both quotidian and ritual practice.

Overall, pottery in funerary contexts tends to be found in smaller quantities than in settlements, and the range of ceramic types usually differs between the two contexts. As will be seen in Chapter 6, utilitarian wares often comprise the greatest percentage of settlement pottery, with fewer quantities of finewares (Bourriau 1991; Lacovara 1987, 2003). When finewares do occur, however, their specific contexts and distributions can provide insight into socioeconomic status, as well as the activities necessitating the use of fineware vessels that occurred within those contexts. Conversely, vessels included in burials are very often of relatively fine quality, with considerably smaller percentages of utilitarian types (Lacovara 2003). Such patterns, of course, depend on the occupation, socioeconomic status, and often the age and/or gender of the person or persons interred. Additionally, in situations involving intercultural interaction, it is possible for burials to contain Nubian

wares only, Egyptian wares only, or any combination of local and foreign vessels (Bourriau 2004). It may also be possible to find ceramics made locally but appropriating a non-local style, further indicating the entanglement of cultural traditions and practices. Pottery excavated from the Abu Fatima cemetery was analyzed by the author and trained assistants and will be discussed in greater detail in Chapter 6.

Faunal and botanical remains may also be present in funerary contexts. Food is an important component of mortuary ritual in many societies across time and geographic space, as it is believed in many cultures that the dead require nourishment in the afterlife just as they did in life (Brandes 1997; Weismantel 1991). Faunal bone appearing in settlements is nearly always fragmentary and in disarray. Animals included in burials, however, are often complete and intact, which is evident in the documentation of articulated skeletons (Chaix and Grant 1993). It is also possible to find fragmentary faunal remains associated with ceramic vessels in burials, indicating that the animals were first butchered and the meat later prepared as a food offering for the deceased (Chaix and Grant 1987). Plant material can be fragmentary or complete, and it can include both micro- and macrobotanicals. In conjunction with faunal and botanical data from settlement contexts, plant and animal remains in mortuary contexts can also contribute to our knowledge of Kerma foodways. Moreover, these types of evidence can afford insight into ritual practice in the Kerma hinterlands. As with the faunal and botanical material from the Hannek settlement, all such remains from Abu Fatima were analyzed according to regional and methodological standards by trained specialists.

As noted above, jewelry and other items used for personal adornment are often included in burials. In a Kerma style burial, it would not be unusual to document cowrie shell and

ostrich eggshell beads, ivory or stone pendants, ivory bangle bracelets, ivory or stone hoop earrings, or belts made from leather or sinew. Egyptian style burials may include stone bangle bracelets, religious amulets and figurines, or beaded necklaces made from ceramic, stone, or faience. Nubian burials can contain elements of either cultural tradition, or a combination of both. Such objects, especially when placed deliberately in burials, can contribute substantially to an understanding of the ways in which cultural and social identities were conceptualized—and actively performed—by those in the community.

Modes of dress, too, can provide such insight, as one's mode of dress can be used as an overt marker of group membership and can also indicate cultural entanglement in some circumstances (Barth 1969; Lightfoot and Martinez 1995; Lucy 2005). During the Kerma period, Nubians were well known for their leatherworking skills, and clothing was often made from cow, goat, or sheep leather (Chaix 2017; Friedman 2007). Nubian clothing may take the form of dresses, shirts, kilts, sandals, and caps worn atop the head. These items may be unadorned, or they may feature decorative incising, piercing, beading in geometric patterns (Bianchi 2004). Sandals and belts often include braided and twisted elements, and the footbeds of sandals often exhibit decorative incising. Egyptian clothing was made most often of linen or other cloth made from plant fibers, and also consisted of dresses, shirts, kilts and leather sandals.

As in settlement contexts, burials may also contain an array of other artifact classes that indicate how identities were viewed and expressed. These items include stone or metal tools and implements as well as stone vessels. Additional prestige items such as weapons or ostrich feather fans might are found in many wealthier burials. A number of these types of artifacts were documented at the Abu Fatima cemetery and can thus be used as lines of

evidence for understanding how identities were conceptualized in this hinterland community during the social and political changes that took place throughout the Kerma period.

C. Radiocarbon Analysis

1. Dates from the Hannek Settlement

Although ceramics can provide accurate date ranges for their contexts, given the well-established chronology for Upper Nubia, it is nevertheless prudent to confirm such dates using archaeometric testing whenever possible. Thus, six samples were chosen for radiocarbon dating from the settlement at Hannek. The first step taken toward choosing appropriate samples was to delineate distinct areas of the site using the map of excavation units (see Figure 2). In order to obtain good coverage of the site, one sample was chosen from each of Areas B through G. No sample was taken from Area A, as it was determined that no appropriate sample was present in the assemblage for that area.

Due to the absence of shell in the excavated material from Hannek, and because of the dearth of plant matter and charcoal of a sample size acceptable to the laboratory, all of the six samples chosen for dating consisted of charred faunal bone. Four of these samples, however, failed in pretreatment at the laboratory and were unable to be dated. The most likely reason that these four samples failed is that they were degraded due to their proximity to surface contexts. Although the stratigraphy at Hannek was shallow across the entirety of the site, it is not unreasonable to expect that some archaeological material will retain its integrity better than other material based on individual context and preservation. For this reason, it is often difficult to ascertain which samples will undergo archaeometric testing successfully if all samples appear superficially to be in similar condition.

Table 3. Radiocarbon dates from the Hannek settlement, including uncalibrated dates (before present), calibrated dates (BC), and time period.

Sample Context	Uncalibrated Date (BP)	Calibrated Date (BC)	Time Period
Area C (Unit 8)	3613-3555	1021-807	Third Intermediate Period (post-occupation)
Area F (Unit 18)	2838-2794	2027-1881	Middle Kerma

Ultimately, of the original samples submitted, only those from Areas C and F produced reliable dates (Table 3; Stuiver and Reimer 1993). The sample from Area F (Unit 18) dates to the Middle Kerma phase (2027-1881 cal BC), which is consistent with the earliest ceramic types documented in the assemblage from the Hannek settlement. The sample taken from Area C (Unit 8) dates considerably later, following the New Kingdom occupation and coinciding with the Egyptian Third Intermediate period (1021-907 cal BC). This date coincides with the set of modest burials adjacent to the Hannek settlement, based on the stylistic elements of the artifacts associated with those burials. This date is also consistent with the latest ceramics documented at the site, with the exception of a very small number of later (i.e., medieval) sherds that are present in a few contexts. Thus, when considered together, the artifactual and archaeometric evidence confirms the long temporal range of occupation and activity at Hannek.

2. Dates from the Abu Fatima Cemetery

Eight samples representing three of the five excavated units were chosen for radiocarbon dating from the Abu Fatima material (see Figure 3; Table 4; Stuiver and Reimer 1993). Samples were taken from Units 2, 4, and 5, but no appropriate organic samples were present in the material from Units 1 or 3. Sample types included charcoal, animal hair, portions of

woven reed matting, and unidentified organic matter. Unlike several of the samples from Hannek, the analysis of all eight samples from Abu Fatima was successful, likely due to the deeper stratigraphy and superior preservation in the Abu Fatima burial contexts. Results of the radiocarbon analysis indicate that the oldest burials occur in area of the cemetery that encompasses Unit 4, with Kerma period dates ranging from as early as 2308 cal BC to as late as 2043 cal BC. These dates fall comfortably within the Early Kerma phase, transitioning into Middle Kerma. One sample from Unit 4 produced a much later date of 355-154 cal BC, placing it within the Meroitic period. As will be made discussed further in Chapter 6, this late date is unsurprising given the presence of a grave structure that appears to have been cut into existing Kerma-style pits and contained an individual placed in an extended position (Figure 4). Burial treatment of this type is atypical of the other burials in

Table 4. Radiocarbon dates from the Abu Fatima cemetery, including uncalibrated dates (before present), calibrated dates (BC), and historical time period.

Sample Context	Uncalibrated Date (BP)	Calibrated Date (cal BC)	Time Period
Unit 2	2287-2243	395-229	Meroitic
Unit 2	2271-2229	390-226	Meroitic
Unit 4	3830-3780	2308-2142	Early Kerma
Unit 4	3790-3746	2285-2134	Early Kerma
Unit 4	3774-3728	2209-2043	Early Kerma/transition to Middle Kerma
Unit 4	2180-2138	355-154	Meroitic
Unit 5	3689-3643	2135-1963	Middle Kerma
Unit 5	3452-3408	1777-1681	Middle Kerma/transition to Classic Kerma

the Abu Fatima cemetery and of Kerma burials in general. The later burial also cuts into a Kerma period pit in the adjacent excavation unit (Unit 2). The two Unit 2 samples confirm the Meroitic period reuse of this part of the cemetery, with samples producing dates of 395-229 cal BC and 390-226 cal BC.

The samples from Unit 5 both date to the later part of the Kerma period, with dates ranging from 2135-1963 cal BC at the earliest, and 1777-1681 cal BC at the latest. These dates place this area of the site firmly within the Middle Kerma phase, transitioning into the later Classic Kerma phase. Broadly, then, the radiocarbon data suggest that the earliest use of the cemetery began in the northern part of the site and gradually extended southward throughout the Kerma period. The cemetery then appears to have been abandoned during the New Kingdom occupation and the Napatan period, with sporadic reuse during the

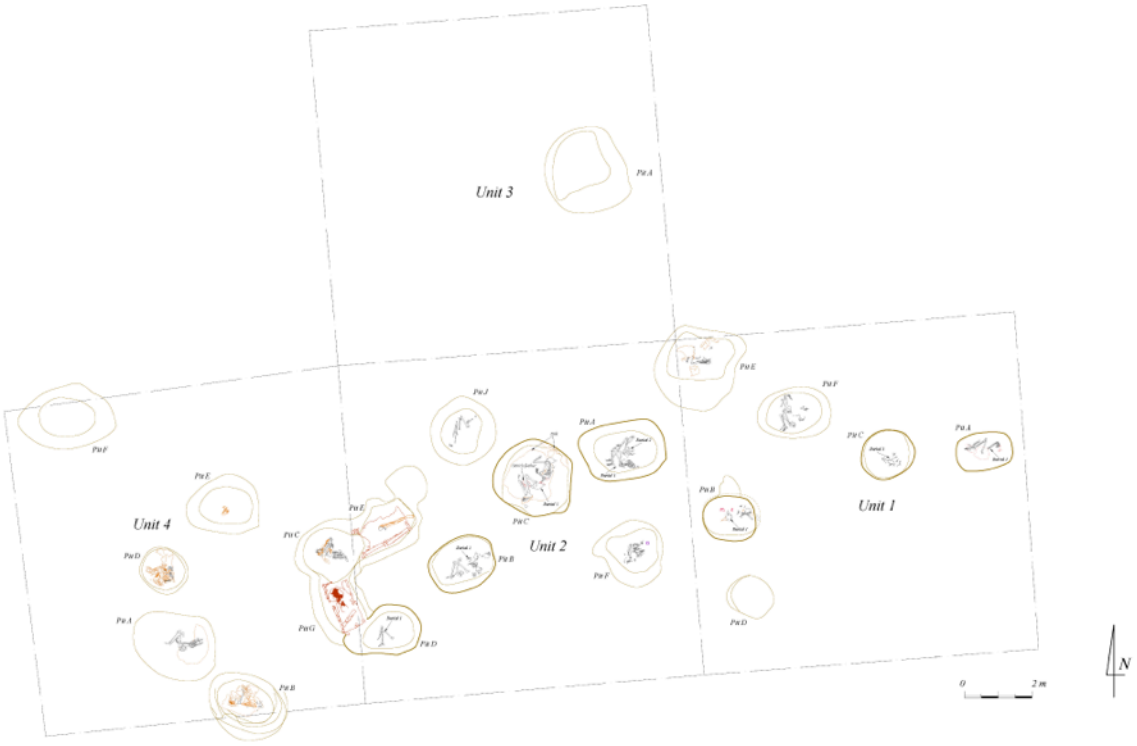


Figure 4. Plan drawing of Units 1-4 in the Abu Fatima cemetery. The Meroitic period burial (Pit E) can be seen at the western edge of Unit 2, cutting into Pit C in Unit 4.

Meroitic period. As seen at the Hannek settlement, these patterns are consistent with the ceramic assemblage from Abu Fatima, which contains types ranging from the earliest to the latest parts of the Kerma period.

D. Summary

This chapter has outlined the methods used in preliminary fieldwork and follow-up excavations at both the Hannek settlement and the Abu Fatima cemetery. The radiocarbon results and the ceramic evidence (see below for discussion) indicate that the Hannek settlement was occupied continuously from the Middle Kerma phase through to the Napatan period, with brief reuse of the site during the Christian period. Thus, Hannek stands to inform our understanding of later interactions between Kerma and Egypt, including how those living in the community experienced the New Kingdom occupation. Meanwhile, the cemetery at Abu Fatima used most heavily during the Early and Middle Kerma phases, though the ceramic and archaeometric data also indicate Classic Kerma expansion of the site. Following a long hiatus, the cemetery underwent reuse during at least the early part of the Meroitic period. Abu Fatima is therefore well situated to provide insight particularly into the ways that identities were expressed during the earlier phase of Kerman-Egyptian interactions, but it can also afford a glimpse into later expressions of identity that occurred alongside Egyptian encroachment into Upper Nubia. The following chapter discusses these patterns in great detail, in addition to presenting the results of analysis for each class of material evidence documented at Hannek and Abu Fatima.

V. Continuity and Change: Previous Research and Current Methods

A. Introduction to the Chapter

Much knowledge of the Kerma state and its relationship with Egypt has been gained as a result of a century of research in Upper Nubia. The lack of documentary evidence originating in the Kerma domain necessarily means that our entire understanding of the social and political phenomena that took place in Bronze Age Nubia is the result of archaeological excavation and analysis conducted by numerous researchers (e.g., Azim 1975; Bonnet 1983, 1986, 1990; Reisner 1923; Vercoutter 1958; Gratien 1978, 1986, 1997, 1999; Gratien et al. 2002). To date, these scholars have focused on the primary and secondary centers of Kerma's kingdom, with far less attention paid to sites in the Kerma hinterlands (but see Welsby 2001). Nevertheless, the research conducted in urban centers has provided a wealth of information surrounding Kerma cultural traditions and the transition from Kerman to Egyptian rule on the Middle Nile. Equally important, however, is an understanding of the ways these processes took shape in hinterland communities during the Kerma period and the Egyptian New Kingdom occupation of Nubia.

A wide range of artifacts and other material culture has the potential to inform our knowledge of life in the Kerma hinterlands. By quantifying the nature of assemblages such as ceramics, tools, architecture, mortuary ritual, and other classes of evidence during and after the Kerma period, it becomes possible to address the similarities and/or disparities between the Kerma center and its satellite communities. Thus, I begin this chapter by describing the social and cultural changes that took place in the Kerma capital and at Sai Island, highlighting the previous research that has been conducted in these urban centers.

The chapter then concludes with a description of the qualitative and quantitative methods of analysis performed on the various classes of evidence documented at Hannek and Abu Fatima.

B. Previous Research and Patterns of Change in the Kerma Centers

1. The Kerma Capital

Kerma, as the type-site from which current knowledge of the Kerma period and material culture has sprung, has risen understandably to the fore as a model for the lasting effects of the social and political maneuverings that evolved during the Nubian Bronze Age. The island of Sai, too, has assumed a significant role in the literature as an archetypal venue for understanding how Kerman-Egyptian interaction incited culture change throughout the Kerma domain. Indeed, it is largely due to the research conducted at these urban centers over the past century that we have gained such an extensive knowledge of the Kerma period and the people who shaped its trajectory.

American archaeologist George Reisner was the first to investigate the site of Kerma, undertaking excavations during the early part of the twentieth century under the auspices of the Egyptian government. The most widely famed archaeological features documented by Reisner (1923) at Kerma are the sprawling necropolis and the Eastern and Western *Deffufas*. The necropolis housed vast royal and elite tumuli[5] measuring as large as 90m in diameter, along with less wealthy non-elite tombs constructed on a much smaller scale, with a total numbering in the thousands. In antiquity, these tumuli were capped with concentric circles

[5] The term 'tumulus' refers to an artificially constructed mound or low-lying dome and, in the archaeological literature, nearly always refers to a grave structure. Tumuli may be constructed from an array of materials. Those of Kerma period Nubia were built from earth and capped with natural pebbles.

of small black and white cobbles creating a striking effect against the landscape. The largest of the royal tombs contained more than 300 individuals who are believed to be sacrificial victims buried along with the tomb's owner (Adams 1984).

Equally as notable on the Kerma landscape are the *deffufas*,[6] which are massive constructions of solid mudbrick. The Eastern *Deffufa* is situated immediately adjacent to the Kerma necropolis, while the Western *Deffufa* is located within the ancient city. The precise function of these structures remains unknown, though some have recently interpreted the buildings to be religious or ritual in nature (Bonnet and Valbelle 2006), while others claim that their use was primarily administrative (Hintze 1964) or military (Adams 1977).

In his excavation reports, Reisner interpreted the grand architectural remains, material wealth, and the large number of Egyptian imports documented at Kerma to indicate that the site was a far-flung Egyptian fort and/or trading post presided over by Egyptian colonists. He hypothesized that the local culture could not have accomplished the grandeur of the civilization on its own, and that Kerma's greatness was achieved early in its history by a foreign power, only to enter into decline following Egypt's exit from the Third Cataract. Further confusion may have stemmed from the fact that there appears to have been noticeable Egyptian influence on a range of locally made goods, including furniture, jewelry, and weapons (Trigger 1976). Although Kerma maintained a highly developed set of indigenous cultural traditions and sets of objects, its people were thus clearly intrigued by Egyptian trends and regularly incorporated them into the local repertoire even before the period of Egyptian colonial rule. Such patterns of consumption, alongside the often-racist

[6] '*Deffufa*' is a loan word from the modern Nubian language and is used to refer to any large-scale building (Trigger 1976).

underpinnings of Nubian archaeology at the time, may have contributed in part to Reisner's belief that Kerma was an Egyptian outpost.

Recent investigations, however, have established definitively that Reisner's chronology of the Kerma kingdom was, in fact, reversed (Adams 1984). Rather than an Egyptian outpost that fell into the hands of local Nubians, Kerma was in fact a burgeoning indigenous power. As was described in Chapter 2 of this dissertation, however, that power ultimately fell under the colonial program of Thutmose I. After the conquest and during the Egyptian colonization of Nubia, Kerma traditions at the capital were supplanted by those of the Egyptian colonists, with local cultural elements largely disappearing from the material record (Trigger 1965). Ongoing excavations by the Swiss Archaeological Mission of the University of Geneva, begun in 1977 and presently ongoing, continue to document the Egyptian settlement at what was once the Kerma capital. In recent years, Bonnet's work has given particular focus to the architecture at the site of Dokki Gel, where Egyptian and Nubian temples have been documented. These structures exhibit noticeable Egyptianizing characteristics, though some persistence of Nubian features is visible.

2. Sai Island

Archaeological excavations at Sai, too, have proved invaluable to the current knowledge of the development and trajectory of the Kerma civilization. Sai is situated on one of the largest islands on the Nile, located approximately 120km to the north of Kerma and roughly midway between the Second and Third Cataracts. Its location at the southern end of the *Batn el-Hajar* coincides with the northernmost boundary of Upper Nubia and the Kerma domain at the height of its power. Systematic excavation was first begun at Sai in the 1950s (Vercoutter 1958) and continued throughout later decades (Azim 1975; Gratien 1978, 1986).

Investigations remain ongoing under the direction of the French Archaeological Mission. Archaeological evidence stemming from this extensive research indicates that the island was occupied continuously from the Paleolithic through the Islamic period (Doyen 2009).

Our current knowledge of Kerma cultural traditions following Reisner's original expedition has been greatly augmented by the work of Gratien (1978, 1986), by whom the now widely accepted chronology of the period was established. The efforts of various researchers have demonstrated that there was a significant Kerma presence on the island spanning the entirety of the Kerma period. Early Kerma assemblages bear strong resemblance to those of the Lower Nubian A-Group and C-Group cultures (Trigger 1976). This observation is unsurprising, given the site's relative geographic proximity to these communities. The A-Group peoples, who had inhabited the region between the First and Second Cataracts (Bietak 1986), are thought by some to be the direct antecedents of C-Group populations who established their settlements slightly to the south beginning in the third millennium BC (Säve-Söderbergh 1989). A definitive biological relationship has yet to be confirmed, though recent bioarchaeological research has indicated that C-Group peoples may be more closely related to Kerma populations than to those of the A-Group (Buzon 2011; Irish 2005). However, multiple lines of A-Group and C-Group material evidence, including pottery, tomb structure, and grave inclusions show notable similarities (Geus 1991; Williams 1977). In any case, it is undeniable that some affiliation, whether biological or cultural, existed between Lower Nubian and Kerman populations at Sai.

Kerma occupation on the island persisted through to the Classic Kerma phase, when the settlement flourished as it did at the Third Cataract. Because excavations at Sai have focused largely on the Egyptian town, comparatively little is known about the earlier Kerma

settlement. What is known, however, is that Sai is currently the only major Kerma period settlement aside from Kerma itself (Budka 2011). No monumental architecture that is comparable to the *deffufas* is extant at the site, but the Kerma period necropolis has been well documented (Gratien 1986; Morris 2005). The large necropolis rivals its counterpart at the capital in overall size, though the individual tombs at Sai are somewhat smaller, less elaborate, and contain considerably fewer sacrificial victims than those excavated at Kerma (Trigger 1976).

Despite its long history of occupation and its central role as a Kerma period urban locale, archaeological efforts at Sai have focused primarily on the New Kingdom settlement and its associated cemetery (Doyen 2009). Like the capital, Sai fell to the Egyptians under the rulership of the pharaoh Ahmose, prior to Thutmose I's conquests farther south. During the occupation, Egypt established a fortified town at the site, erecting a temple dedicated to the god Amun who had achieved particular primacy at Thebes (Geus 2004). Not only did the city itself come under the control of Egyptian colonizers, but as has been demonstrated at Kerma proper, the material culture also became fundamentally Egyptian. It is notable, however, that a portion of the ceramic evidence from Sai indicates that at least some Nubian influence is present in the surface treatment and/or decoration of some vessels (Budka 2011). These examples suggest that although Kerma culture was virtually replaced at Sai during the Egyptian occupation, some Nubian expressions of cultural identity—however subtle—persisted, even under colonial rule.

C. Datasets and Methods of Analysis of the Hannek and Abu Fatima Assemblages

As discussed in Chapter 4, multiple lines of evidence were documented at both the Hannek settlement and the Abu Fatima cemetery. Ceramics and lithics were subjected to

both qualitative and quantitative analysis by the author. Architecture, burial style, jewelry, and other personal items underwent qualitative analysis by the author. Faunal and botanical remains were analyzed according to accepted methodological standards by trained specialists. Methods of analysis for all artifact classes are equivalent for both sites, for both the 2015 and 2016 excavation seasons. Any situational differences in procedure are noted in the subsections below.

1. Qualitative Methods of Ceramic Analysis

A total of 82,965 potsherds were collected at the Hannek settlement, and a total of 2,332 sherds were collected at Abu Fatima. Both ceramic assemblages were analyzed in their entirety. Sherds were bagged and labeled with their provenience information at the field sites. The sherds were then transported to the field laboratory, where they were entered into a spreadsheet containing the inventory of all excavated artifacts. After receiving a unique inventory number, each bag of sherds was individually washed in plain tap water and left to air-dry. Any sherds that were particularly fragile or degraded, and any that appeared to be decorated with special surface pigments, were cleaned using only a soft, dry brush and without water. Once dry, the sherds were returned to their original collection bags and staged for sorting and other qualitative evaluation.

Each bag was sorted individually and in its entirety. Sherds were categorized based on their cultural origin (Nubian, Egyptian, or non-Egyptian import). Within these broader categories, the pottery was organized into 34 subcategories based on three criteria: paste quality (fine, ordinary, or coarse); surface treatment and decoration (for example, fine black top, ordinary black top, mat impressed); and vessel type or portion of vessel (for example, bowl rim, jar rim, handle). Each bag of sherds was given its own data collection form,

which was labeled with the bag's context and inventory number. After sorting, the count for each subcategory was tallied and entered into the datasheet. If an individual sherd exhibited characteristics that deviated from the typical traits of its subcategory, a note was made on the datasheet to include such details.

Once these steps were completed, all sherds considered to be diagnostic were placed into a separate bag that was labeled with the sherds' provenience, and these bags were set aside for shipment to the United States for further analysis. All non-diagnostic sherds were placed back into their original bags and entered into secure storage at the field laboratory in Tombos, Sudan. Diagnostic sherds include rims, bases, handles, and those from any portion of the vessel that contains decorative elements such as incised, painted, punctate, or stamped designs. All sherds made from Egyptian marl clays were also included with the diagnostic pottery, as marls often contain unique geochemical signatures that can provide information regarding the source of the raw material. Nile silt clays do not possess these same qualities, making them less useful for sourcing.

2. Quantitative Methods of Ceramic Analysis

Prior to conducting in-depth statistical analysis of the ceramic data, it was necessary to calculate a few basic statistics in order to obtain a broad understanding of the data. In order to conduct these calculations, the data first required organization. First, the counts for all datasheets generated during the initial sorting of the pottery were entered into separate spreadsheets for Hannek and Abu Fatima. The count data were then organized by excavation unit number. For the purposes of conducting quantitative analysis, the count data for units with more than one associated datasheet were collapsed into a single dataset so that a single set of statistics could be produced for each excavation unit.

For the Hannek settlement, once the counts compiled for each individual excavation unit, the 23 units were collapsed into seven broader zones within the site, which have been labeled Areas A through G. Each of these areas encompasses one unit to eight units grouped by their location within different portions of the site. Similarly, for the Abu Fatima cemetery, the ceramic count data was compiled for each of the five excavation units. Each unit was subsequently assigned either to Area A or Area B, depending on its location within the excavated portions of the site. Combining the data in this way was determined to be the most useful method for recognizing patterns across physical space within each of the two sites, as it allowed for the examination of artifact contexts in natural, rather than arbitrary, divisions of space. This method of data organization is particularly useful for the Abu Fatima data, given that different areas of the cemetery appear to have been in use at different times over the course of at least six centuries during the Kerma period.

In addition to collapsing the physical contexts of the ceramic subcategories, it is also useful for some forms of analysis to collapse the subcategories themselves into broader ceramic types. In other words, rather than analyzing on 34 distinct and fine-grained divisions of the data, it is in some cases more meaningful to analyze fewer categories that combine interrelated subcategories. Thus, the 34 original subcategories defined above were combined in meaningful ways to create nine broad types that were documented at Hannek and Abu Fatima (Table 5; Figures 5-15).

Finewares are considered to be those types that are made with very fine paste and, in many cases, polished or well-burnished surfaces and careful decoration. Finewares are very often serving vessels, as they are meant to be seen by a wider audience than utilitarian or storage vessels. Ordinary wares are composed of a slightly coarser paste, are left

unpolished, and exhibit less meticulous decoration than their finer counterparts, or are left undecorated. Ordinary wares tend to be made for day-to-day utilitarian purposes such as

Table 5. Ceramic types used in analysis of the Hannek and Abu Fatima assemblages, along with their corresponding ceramic subcategories.

Nubian Finewares	Beaker Fine Black Top Incised Fine Black Top Handmade - Special
Nubian Ordinary Wares	Black Top Nubian Incised Punctate Stamped
Nubian Coarse Wares	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised
Egyptian Ordinary Wares	Ordinary Ordinary with Red Coat Ordinary with Light Coat Limey Ordinary Fine Ordinary Fine Ordinary with Red Coat Fine Ordinary with Light Coat Chaffy Ordinary Chaffy Ordinary with Red Coat Chaffy Ordinary with Light Coat Chaffy White
Egyptian Coarse Wares	Coarse - Wheelmade
Egyptian Marl Wares	Upper Egyptian Marl Other Marls
Non-Egyptian Imports	Other Imports
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black with Light Interior Christian Polychrome Molded
Unidentifiable Sherds	Unidentified

Figure 5. Example of Nubian Fineware (Fine Black Top, with faint comb impressions).

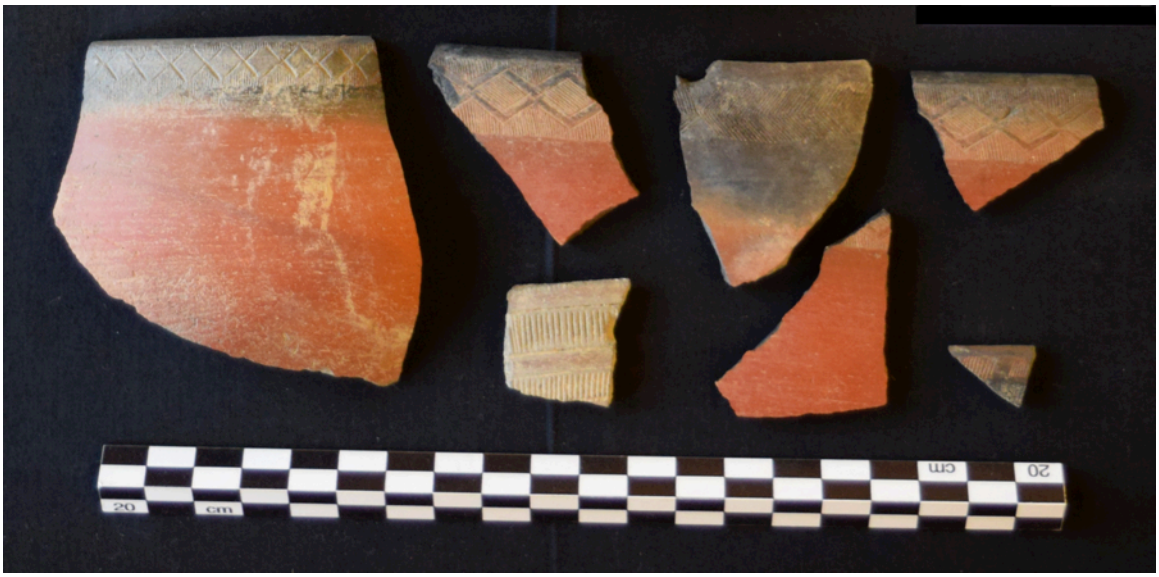


Figure 6. Examples of Nubian Fineware (Incised Fine Black Top).

Figure 7. Example of Nubian Ordinary Ware (Black Top).

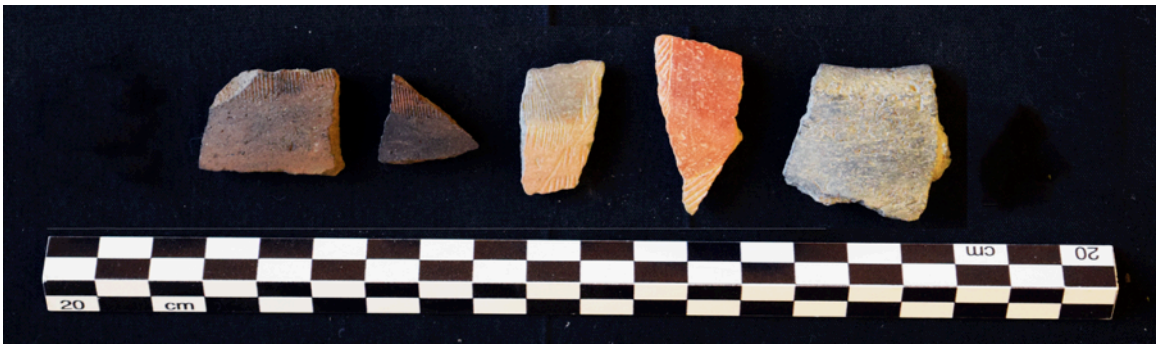


Figure 8. Examples of Nubian Ordinary Ware (Nubian Incised).

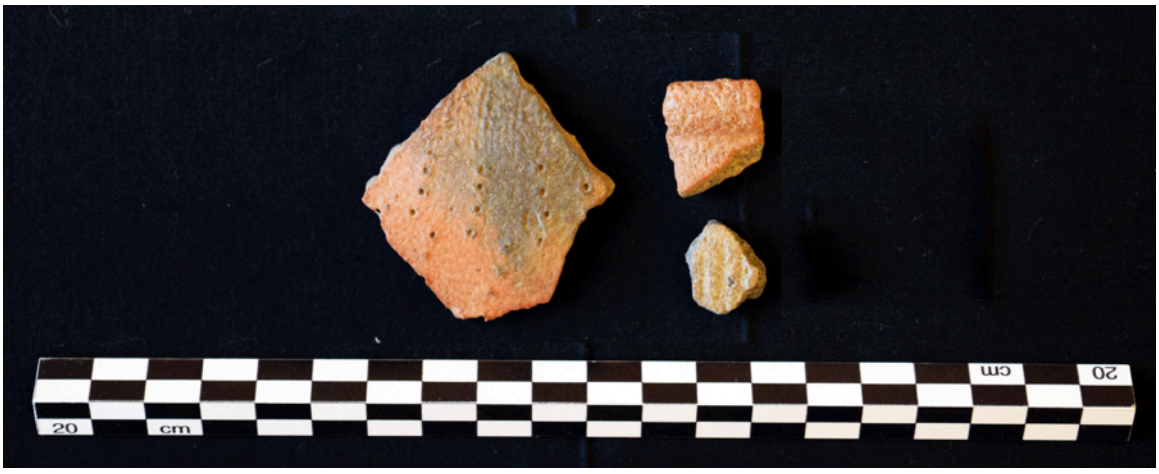


Figure 9. Example of Nubian Ordinary Ware (Punctate), at far left.

Figure 10. Examples of Nubian Ordinary Ware (Nubian Incised, at bottom far right; Stamped, bottom second from left) and Nubian Coarse Ware (Nubian Mat Impressed, multiple examples).

Figure 11. Examples of Nubian Coarse Ware (Nubian Mat Impressed, Nubian Coarse, Nubian Coarse Incised).

Figure 12. Examples of Egyptian Ordinary Ware (Ordinary).

Figure 13. Examples of Egyptian Marl Ware (Upper Egyptian Marl, top row; Other Marl, two sherds at bottom far right) and various Nubian wares.

Figure 14. Example of Egyptian Marl Ware (Other Marl, bottom row) and Nubian Ordinary Ware (Black Top, top row).

Figure 15. Examples of Egyptian Marl Ware (Upper Egyptian Marl, far left and second from right), Non-Egyptian Imports (second from left), and Nubian Ordinary Ware (Black Top, far right).

food consumption. Coarsewares are made from exceptionally coarse pastes, they often exhibit signs of hasty manufacture, and they are rarely decorated. Coarser vessels are most often used for food preparation, cooking, or other heavily utilitarian functions. The category of marl wares includes the range of vessels made from various types of marl clays that originated in Egypt. These vessels were of a material that was sturdy enough to survive long-term storage as well as long-distance shipment for trade, making them excellent for holding wine, beer, oils, and other highly sought-after products. In addition, some bowl forms were also made from marl clays and imported to the Second Cataract fortresses and to Kerma from Egypt. There is no true counterpart for these Egyptian wares in the local Nubian repertoire, as locally produced storage vessels tend to be manufactured from the same locally available Nile silt clays categorized under ordinary wares. All Christian period ceramic subcategories were combined under a single type, as they are very few in number and date to a time period that is outside the scope of this dissertation.

After compiling ceramic count data for both the excavation units and broader areas of analysis at both Hannek and Abu Fatima, basic statistics were calculated for each context. First, the counts of each of the 34 ceramic subcategories were calculated as a percentage of the total number of sherds in each excavation unit as well as in each area. The counts of each subcategory were then calculated as a percentage of the total number of sherds collected from each site. Finally, the counts of each subcategory for all units combined were calculated as a percentage of the total number of sherds at each site.

After the basic statistics described above were calculated, the ceramic data were subjected to more in-depth quantitative analyses. The first of these methods of analysis entailed examining the composition of the ceramic assemblages from Hannek and Abu Fatima in terms of the types of pottery present (see Table 5). This was achieved by creating bar graphs using the statistical software SPSS in order to represent the percentages of each ceramic ware present in Areas A through G at Hannek and Units 1 through 5 at Abu Fatima. Ceramic types at Abu Fatima were grouped by excavation unit rather than by area in order to allow for greater resolution in determining the distribution of types across the excavation portions of the site. Bar charts were also created to represent the compositions of the overall assemblages collected from each site as a whole. The charts were constructed so that the relative frequencies of each ceramic type are depicted as a portion of all ceramics within a given area or excavation unit at each site. In this way, bar charts are useful in that they provide a graphical depiction of the data, thereby facilitating the comparison of the distributions of different ceramic types across physical space.

3. Qualitative Methods of Lithic Analysis

All chipped stone artifacts were collected during excavations at both Hannek and Abu Fatima. Lithics were bagged and labeled with their provenience information at the field sites, and then transported to the field laboratory. Here each bag was entered into the inventory of excavated artifacts and assigned a unique bag number. Because the surfaces of the artifacts were nearly free of adhered soil or other accretions, the lithics as a general rule did not undergo washing procedures. Those examples that were not sufficiently clean for analysis, however, were washed using brushes and plain tap water and left to air-dry, after which they were returned to their original collection bags.

Due to time constraints, it was not possible to analyze the lithic assemblages from the 2015 and 2016 excavation seasons in the field. In addition, due to the weight of their raw materials, the project budget did not allow for the assemblages from both Hannek and Abu Fatima to be shipped to the United States in their entirety. Lithics collected at Abu Fatima during the two field seasons were relatively few in number; thus, all lithics from the Abu Fatima cemetery were shipped to the author's home institution for analysis. The 2015 and 2016 collections from the Hannek settlement were, in contrast, comparatively large. For this reason, it was necessary to select a sample of the Hannek lithic assemblage to be shipped for analysis. In order to obtain a representative sample, it was determined that the equivalent of one one-liter capacity bag from each of the 23 excavated units would be selected. If all lithics collected from an individual unit possessed a total volume of less than one liter, then the entire collection from that unit was taken. All bags not shipped to the United States were entered into secure storage at the field laboratory in Tombos, Sudan.

A total of 2,527 lithic artifacts were analyzed from the Hannek assemblage, and a total of 20 lithics were analyzed from the Abu Fatima assemblage. All bags in the selected sample from Hannek, and all bags from Abu Fatima, were sorted individually and in their entirety. Lithics were sorted into 15 general functional categories, including debitage, based on a combination of shape and use-wear patterns (Table 6). The lithic typology employed in the analysis of these assemblages was adapted from other recent studies of chipped stone technology in the region (Garcea 2003; Honnegger et al. 2013; Kobusiewicz 1998). Each bag of lithic artifacts was given its own data collection form that was labeled with the bag's inventory number and the archaeological context of its contents. After sorting, the count for each functional category was tallied an entered into the datasheet. Any lithics exhibiting

Table 6. Lithic tool types identified in the Hannek and Abu Fatima assemblages, along with their functional characteristics.

Tool Type	Function(s)
Projectile point	Originally hafted to one end of spear, arrow, dart, or other weapon.
Bifacial preform	Blade, point, or other bifacially worked tool in an unfinished state.
Chopper	Used in butchering animals and/or processing plant matter.
Perforator	Used for piercing, such as in leatherworking.
Borer	Used for drilling.
Endscraper	Used for scraping animal hides, wood, or other plant matter.
Sidescraper	Used for scraping animal hides, wood, or plant matter.
Lunate tool	Half-moon shaped microlith used for cutting grasses or plant stalks.
Triangle tool	Three-sided microlith used in multipart tools such as projectiles and maces.
Trapeze tool	Trapezoidal microlith used in multipart tools such as projectiles and maces.
Burin/graver	Used for incising or scoring material, such as in leatherworking or woodworking.
Blade/bladelet	Can be used alone as a knife, or with other components as part of a multipart tool or weapon.
Notched/denticulate	Used for sawing/cutting.
Core	Used for obtaining flakes during tool production.
Debitage	Non-tool flakes created through tool production.

traits that appeared to be atypical of a given category were given a special note on the datasheet.

4. Quantitative Methods of Lithic Analysis

As was the case with the ceramic data from Hannek and Abu Fatima, it was necessary to calculate basic statistics related to the lithic data from these sites in order to obtain a better understanding of patterns in the assemblages prior to more in-depth methods of analysis. The data were organized in much the same way as the ceramic data. First, each datasheet pertaining to individual bags of lithic artifacts was entered into a spreadsheet, after which the data were organized by excavation unit. If more than one datasheet was present for a given context, then those data were combined into a single dataset for that context.

For the purposes of this analysis, the excavation units at both Hannek and Abu Fatima were merged into the same larger spatial areas that were used in conducting the ceramic analyses—Areas A through G at Hannek, and Areas A and B at Abu Fatima. However, because the lithic assemblages from these sites contained only 15 tool categories, it was not necessary or particularly useful to combine these into broader types in the way that the pottery was categorized. Thus, statistical analysis was performed on all 15 lithic tool categories.

After combining the count data, basic descriptive statistics were then calculated for the lithic tool types present in each excavation unit and in each larger area for both the Hannek settlement and the Abu Fatima cemetery. First, the count for each tool type was calculated as a percentage of the total number of lithics in its excavation unit, and then as a percentage of the total number of lithics at the site as a whole. These calculations were then repeated

for the tool types present in each area. Finally, the count data of the combined total of each tool type were calculated as percentages of the entire lithic assemblage for each site.

After these descriptive statistical analyses were carried out, the lithic data were subjected to more in-depth quantitative analysis. As with the ceramic assemblages, clustered bar charts were created for each lithic tool type present in the Hannek and Abu Fatima assemblages. The percentage data calculated for each tool type were used to chart the relative frequencies of each type within a given area at Hannek or a given excavation unit at Abu Fatima. Tool types were grouped by unit rather than area at Abu Fatima in order to gain a more fine-grained perspective on the distribution of types across the excavated portions of the cemetery. Bar charts were then generated to depict the relative frequencies of lithic tool types across each site as a whole, providing a picture of overall assemblage composition for both Hannek and Abu Fatima.

5. Faunal Analysis

Faunal remains were collected at both the Hannek settlement and the Abu Fatima cemetery. Faunal material was ubiquitous in all excavated areas at Hannek, but was documented in only a subset of the burials in the Abu Fatima cemetery. At the field sites, bones and bone fragments were placed in sample bags and labeled with their provenience information, after which they were transported to the field laboratory. The faunal samples were then inventoried, and each bag was assigned an inventory number. While at the field laboratory, a trained specialist conducted preliminary sorting and analysis of the faunal material. These preliminary observations were recorded on datasheets. All faunal remains were then shipped with other artifacts to the United States where they underwent additional, more in-depth analysis.

The faunal assemblages were taken by the analyst to the Zooarchaeology Laboratory at the University of California, Santa Cruz (UCSC), where the material was cleaned and prepared for further analysis (Monroe 2017a). Once these steps were completed, the remains were sorted according to element type. Some elements were then classified to their respective species, using a textual reference (Sisson and Grossman 1917) alongside the comparative collection available at the UCSC Zooarchaeology Laboratory. Identifications were conducted in consultation with, and reviewed by, and additional Old World faunal specialist at UCSC.

A total of 768 faunal bones and bone fragments collected at the Hannek settlement were analyzed. Of the fragments, 216 were identifiable within a taxonomic category. A total of 53 bones were categorized as unidentifiable non-mammalian. Mammalian bone fragments were classified as identifiable, minimally identifiable, or unidentifiable according to guidelines established by Gifford-Gonzalez (in press). Fragments categorized as identifiable possess enough distinctive features to be attributed to a particular part of the body. They are also classifiable at the genus and/or species level. Fragments that are minimally identifiable exhibit enough morphological distinction to be attributed to a particular part of the body but are classifiable only to their taxonomic order. Some extremely fragmented examples were identifiable only as small, medium, or large bovid but did not possess enough morphological characteristics to be classified more precisely. Bone fragments that did not exhibit sufficient distinctive features to be classified at any taxonomic level were categorized as unidentifiable.

A total of 602 individual faunal bones and bone fragments collected at the Abu Fatima cemetery were analyzed. These remains were assessed for age at death using analysis of

epiphyseal fusion based on accepted methodological standards (Monroe 2017b). Among caprines, goats were distinguished from sheep using a scoring method developed by Zeder and Lapham (2010), which employs a defined set of morphological features on different skeletal loci to differentiate between the two genera. As with the faunal remains from Hannek, the specimens from Abu Fatima were examined for evidence of butchery or other perimortem or postmortem modification, and any such evidence was documented.

Analysis of the faunal remains collected at both sites was finalized at the Nubian and Egyptian Archaeology Laboratory at the University of California, Santa Barbara and at the Vernon Warehouse at the Los Angeles County Museum of Natural History. This process entailed recording the characteristics of each element, in addition to documenting bone condition and any observable taphonomic processes evident in the remains. These observations were recorded in a digital spreadsheet. Finally, all faunal remains were catalogued and indexed in a Microsoft Access database.

6. Archaeobotanical Analysis

As noted in Chapter 4 of this dissertation, three one-liter soil samples were collected at the Hannek settlement. One sample was taken from a hearth feature, located in Unit 10 (Figure 16; Area D). The remaining samples were taken from two burned areas, located in Units 3 and 12 (Area B; Figure 17). Both burned areas consisted of relatively flat, compacted ashy deposits, possibly making up a floor surface. The burned section in Unit 3 measured approximately 5m in length and 2m in width, while the exposed portion of the burned deposit in Unit 12 measured approximately 3m in length and 2m in width. Soil samples were collected in one-liter sample bags, each of which was double-bagged to prevent spillage and cross-contamination. The sample bags were labeled with each sample's

Figure 16. Plan drawing of Unit 10, in Area D, showing locations of hearth features and postholes. A soil sample was collected from the easternmost hearth feature. Drawing by Nadejda Reshetnikova.

provenience information and transported to the field laboratory, where they were inventoried and assigned individual inventory numbers. The three samples were then shipped along with the ceramic, lithic, and faunal assemblages to the United States for analysis.

The soil samples were subjected to macrobotanical analysis at the Integrative Subsistence Laboratory at the University of California, Santa Barbara. Macrobotanical analysis typically involves flotation and/or dry sieving of samples, which serves to separate botanical remains from any soil or artifacts with which the plant matter is intermingled (Melton 2016). Due to the environmental context of the samples, there was a possibility of the presence of desiccated plant remains in the samples. If desiccated remains become wet,

the seeds can 'pop', thereby reducing the analyst's ability to conduct taxonomic identification (Chiou et al. 2013; Pearsall 2015). Flotation, which involves submerging the

Figure 17. Plan drawing of Area B (Units 3-6, 7, 9, and 11-12) at the Hannek settlement, showing burned areas and posthole locations. Soil samples for botanical analysis were collected from the two largest burned deposits. Drawing by Nadejda Reshetnikova.

samples in water, was therefore not conducted. Thus, all samples were dry sieved to avoid damaging the macrobotanical remains.

In order to process the samples for analysis, each sample was first weighed and then size-sorted using three geological sieves (2.0mm, 1.4mm, and 0.7mm mesh), thus creating four size fractions. Each size fraction was then weighed and sorted by category of material: plant remains, bone, and contaminants. Contaminants may include any cultural material or natural debris, such as pottery, lithics, stone, dung, and soil. Dung was weighed only in the >2.0mm size fraction, due to its negligible size and weight in the smaller fractions. All plants were taken from each sieve except the <0.7mm fraction, which was checked only for complete seeds and identifiable seed fragments.

Once plant remains were separated from the overall sample, they were categorized taxonomically and then counted, weighed, and recorded. In some cases, size fractions of less than 2.0mm were subsampled in order to make analysis more efficient. When subsampling was employed, weights of plant material were extrapolated to approximate the total weight in the sample. All seeds were counted and weighed, while wood fragments were weighed without counting. Wood fragments included pieces of bark, twigs, branches, and trunk. Botanical remains were classified using as a reference the comparative collection at the Environmental Archaeology laboratory at Boston University. Preliminary identifications were reviewed by an additional archaeobotanical specialist at Boston University.

Soil samples were not collected from the Abu Fatima cemetery as part of the predefined excavation procedures for that site. Therefore, no botanical remains were documented, and no archaeobotanical analyses were carried out for the site. However, this does not preclude

the presence of ancient botanical remains within the cemetery, and it is possible that such remains will be documented in future excavation seasons.

7. Architectural Analysis

Analysis of architectural features was conducted for both the Hannek settlement and the Abu Fatima cemetery. As noted in Chapter 4, settlement architecture may consist of domestic structures, public structures, temporary shelters, and other features such as storage facilities or animal pens and shelters. Cemetery architecture, on the other hand, usually consists almost entirely of burial structures. Depending on the techniques and materials used in construction, architectural remains may be preserved above surface level, in the case of standing or partially standing structures, or they may be at or below surface level only. Because architectural features cannot be collected in the same way that artifacts and other objects can, it is necessary to document such features in situ and conduct analysis based on field observations and plan drawings.

To identify architectural remains at both Hannek and Abu Fatima, the surface in each excavation unit was examined prior to the commencement of excavation procedures. If structural evidence was observed, then the dimensions, type, and other characteristics of the possible feature or features were noted and documented using photogrammetry. If no evidence of architecture was present at the surface level, then the excavation procedures outlined in the previous chapter were undertaken. If architectural remains were identified during the course of excavation, then they were documented using the same techniques described above. In the case of the Abu Fatima cemetery, the characteristics of tomb substructures and superstructures were documented using their own dedicated recording forms as well as photographs. If particular cultural traits related to the settlement or

cemetery architecture were discernible during excavation, these traits were noted for later review. Following preliminary documentation, all features or possible features identified were then mapped precisely in three-dimensional space using a surveyors' total station.

Upon conclusion of the 2015 and 2016 field seasons, the photographic evidence and total station data were used to create plan drawings of all excavated units, including cultural features, particularly notable individual finds, and significant elements of the natural environment. In the absence of standing architecture at either Hannek or Abu Fatima, these drawings were used to confirm the presence and conduct further qualitative analysis of any architectural remains noted during initial documentation. In order to determine the nature of architectural features using the site plans, focus was placed on discerning particular key characteristics of typical Nubian and/or Egyptian architecture, such as structure shape and internal configuration, construction materials and methods, and association with other cultural features.

At the Hannek settlement, characteristics of Kerma-style architecture would be expected to include circular or rectilinear arrangements of postholes, which would indicate the use of wattle-and-daub construction over wooden posts (see Chapter 4, this dissertation; Emberling 2014). Such structures would have consisted of a single room each, though individual dwellings or public buildings may have been placed in close proximity to one another. In many cases, the evidence for such structures may appear as a sort of architectural palimpsest, as organic materials are likely to erode or burn, necessitating the rebuilding of structures. Kerma-style features may also include remains of semicircular courtyards, small circular or irregularly shaped features possible having served as animal enclosures, or linear features that may once have served as windscreens (Bonnet 1992; Gratien 1997, 1999;

Hafsaas-Tsakos 2009a; Welsby 2001). Egyptian-style architecture would be expected to consist of rectilinear foundations of stone blocks, mudbricks, or perhaps fired bricks (Bonnet and Valbelle 2006). Such structures would follow a linear plan, likely consisting of three interconnected rooms.

At Abu Fatima, characteristics of Kerma-style funerary architecture should present as ovoid or circular tomb shafts with circular, mounded superstructures (see Chapter 4, this dissertation). These tumuli may or may not exhibit their black and white capping stones in situ, though their presence would also have been noted during the course of excavation. New Kingdom Egyptian-style tomb structures of the, on the other hand, should entail rectilinear subsurface tomb shafts with pyramidal superstructures behind rectilinear chapels (Smith and Buzon 2014a). These superstructures would have been constructed of mudbrick or, in some cases, stone or fired brick. In particularly elaborate tombs, the shaft itself may also have been lined with stone. Using these characteristics, the combination of field observations and plan-view site maps facilitated the ability to determine the cultural origin or influence present in the various types of architecture present and Hannek and Abu Fatima.

8. Analysis of Burial Style

As noted elsewhere in this dissertation, burial practices can serve a crucial role in deepening our understanding of cultural identities and lifeways, especially when combined with examinations of tomb style and grave inclusions. Because the cemetery adjacent to the Hannek settlement was subjected only to test excavations, a full analysis of the burials documented was not conducted. This section therefore addresses the qualitative analysis of burials documented only at the Abu Fatima cemetery.

During the 2015 and 2016 excavation seasons, a total of 22 tomb structures were located and partially or fully excavated (Figures 18 and 19). A combined total of 23 individuals were interred in these tombs, with all but one structure containing a single burial. It should be noted that although Pit D in Unit 1 and Pit A in Unit 3 appeared from surface inspection to be tombs, neither context contained burials or tomb shafts. Thus, these 'pits' are likely to be shallow natural depressions rather than tomb structures.

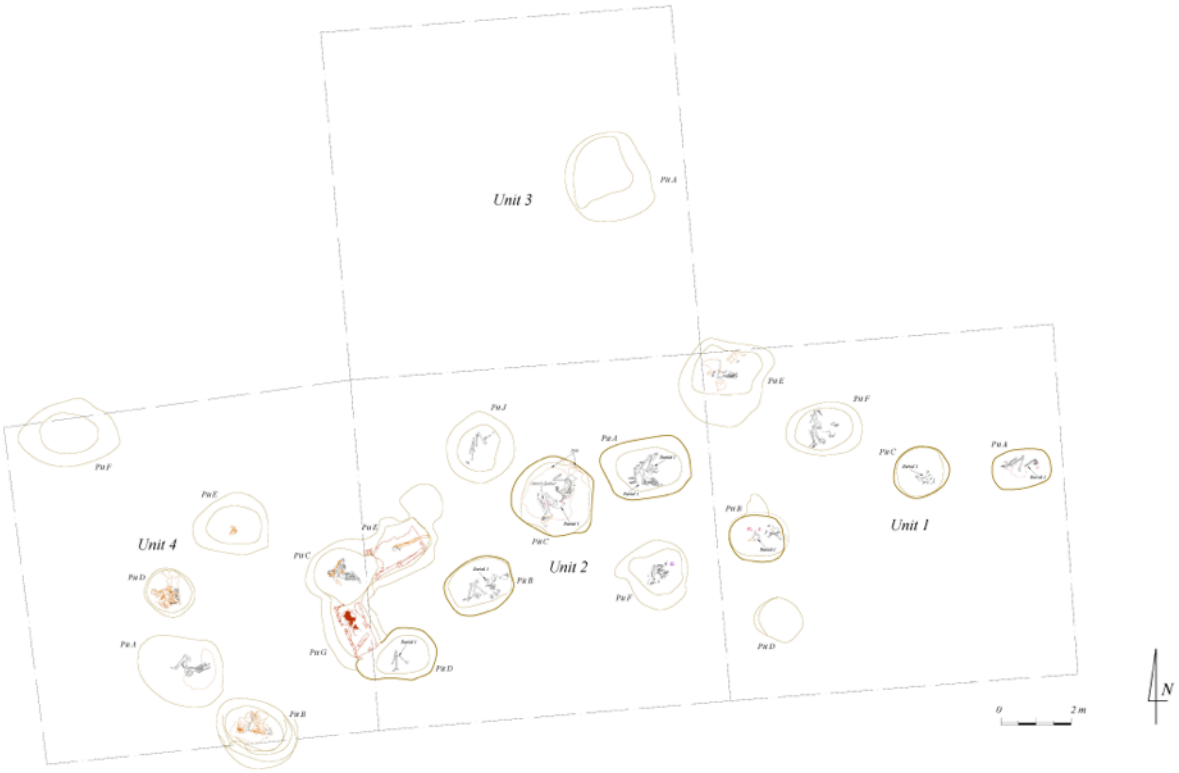


Figure 18. Plan drawing of fully and partially excavated tomb structures in Area A (Units 1-4) at Abu Fatima. Drawing by Nadejda Reshetnikova.

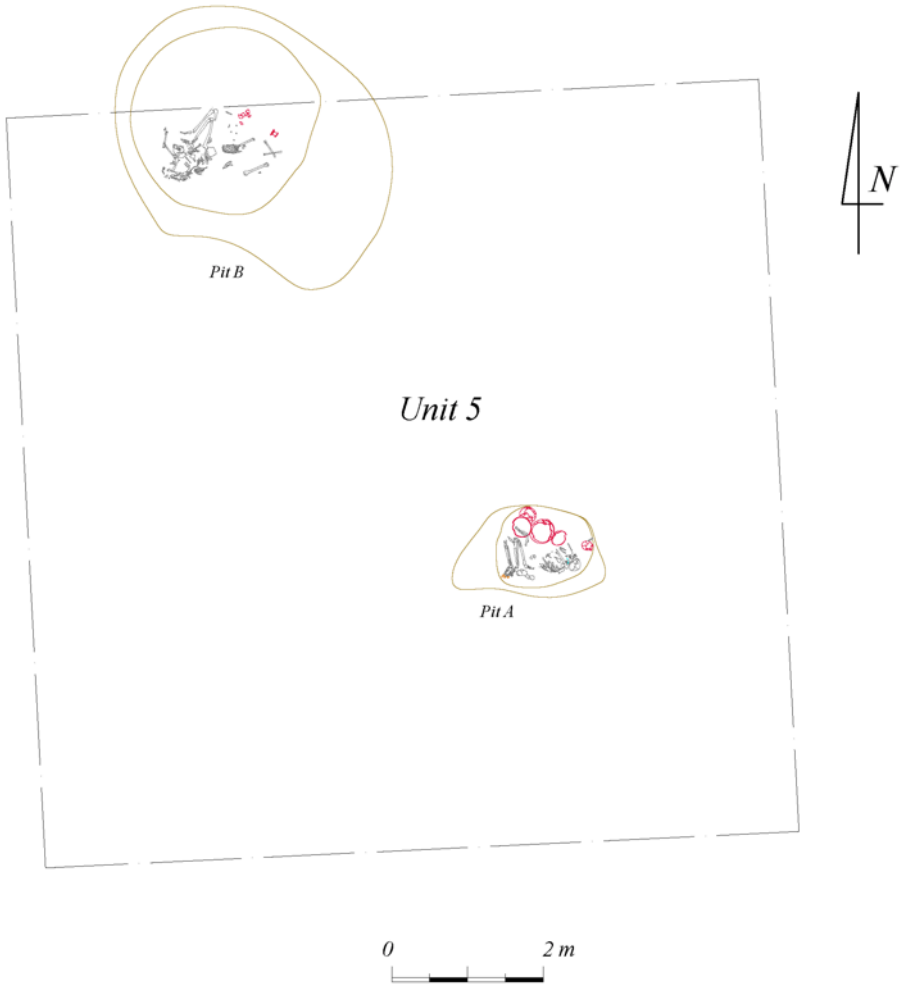


Figure 19. Plan drawing of Area B (Unit 5) at Abu Fatima. Drawing by Nadejda Reshetnikova.

In order to assess burial style for each interred individual, a number of characteristics were taken into account. These traits include the positioning and directionality of the body; the presence/absence and type of special treatments applied to the body (e.g., animal hides, textile wrappings, or mummification); and the use of any particular conveyance for the body (e.g., coffin, burial bed, or woven matting).

To document body position and directionality, observations were made by hand during excavation, and photogrammetry techniques were used to document these characteristics photographically prior to removal of the human remains. Upon the conclusion of each field

season, the remains of each interred individual were mapped in physical space and later added to the plan drawings. Observed characteristics included the cardinal direction of the head; whether the body was placed on its left side, right side, or back; whether the knees were flexed or straight; and whether the hands were placed near the face or on the pelvis or torso. For Kerma-style burials, it would be expected to find the individual placed on his or her right side with the head oriented toward the east, facing north (Bonnet and Valbelle 2006). The knees should be flexed and hands placed near the face. Individuals buried in the New Kingdom Egyptian style should be placed with the head oriented to the west, facing east toward the rising sun, in an extended, supine position with straight legs and the hands placed atop or near the pelvis (Smith and Buzon 2014b).

Observations regarding treatments and conveyance of the body were also noted during excavation and, if present, photographed. When such treatments were mappable, they were added to the plan drawings. Nubian burials during the Kerma period may entail the covering or loose draping of the deceased in animal hides. In many cases, the body was then placed atop a wooden burial bed stretched with woven matting. Although it is not uncommon for human remains to undergo natural preservation in the arid environment of Upper Nubia, the Kermans did not practice artificial mummification or other types of preservation. The Egyptians, on the other hand, often closely wrapped their deceased in linens or other textiles. In some cases, and especially in elite and royal burials, additional steps were taken to embalm the individual's remains prior to wrapping. These procedures included the removal and separate embalming of major organs as well as the application of

natron[7] and various unguents to preserve the soft tissue (Bard 2008). Once these steps were completed, the deceased was placed in a wooden, ceramic, or stone coffin. After documenting presence/absence and type of these traits, all archaeological material was collected separately from the human remains and subjected to treatment by a trained conservator. The objects were then placed into secure storage at the field laboratory in Tombos, Sudan.

9. Analysis of Jewelry and Other Personal Items

The final category of objects that was encountered at Hannek and Abu Fatima pertains to items worn or carried for the purpose of personal adornment or, perhaps in some cases, to express group affinity. When encountered, such items were noted, photographed, and, whenver possible, mapped into the plan drawings. Items that were especially diminutive, such as single beads, were not mapped individually but were noted in field journals and on forms. Objects within this category of artifacts may include clothing additional to any hides or wrappings, jewelry or other wearable accouterments, insignia of social status, pottery, tools, or food items. The type, quality, and cultural origin of these objects were also assessed in both the settlement and cemetery contexts.

All such items were documented in field journals and on forms during the course of excavation. They were also documented using photogrammetry prior to collection. Whenever objects were encountered that were particularly fragile or degraded, they were treated by a trained conservator after documentation and before removal from their archaeological contexts. The artifacts were then given labels detailing their respective

[7] Natron is a naturally occurring preservative consisting of sodium carbonate and sodium bicarbonate.

provenience information and transported to the field laboratory. Each item was then inventoried and assigned an object number, then subjected to further conservation procedures, including cleaning. Following these steps, detailed photographs were taken of each object. Because Sudanese law does not permit the export of intact or reconstructible artifacts, these items were then entered into secure storage at the field laboratory in Tombos.

Personal items were documented at both Hannek and Abu Fatima, though such objects were considerably more numerous in the burial contexts at Abu Fatima. This pattern is unsurprising, but this is not likely due to any degree of rarity of such items among the community's ancient inhabitants. Rather, personal objects, especially those with perceived value, tend not to be discarded haphazardly in the same way that a broken ceramic vessel or tool may be discarded, except perhaps in extenuating circumstances such as disaster, warfare, or occasional accidental loss. Furthermore, the intentional deposition of such items in Nubian habitation contexts is not currently well documented. Finally, jewelry and other perceivably valuable items are often looted, whether in the modern era or in antiquity, meaning that these types of goods typically do not survive to be encountered by archaeologists working at settlement sites. Conversely, personal effects are often placed deliberately within burials, either because they were meaningful to the deceased or because they were meaningful to those carrying out funerary rites. Although burials have often been looted, even in antiquity, the placement of objects in tombs can in some ways effectively protect them from accidental loss, damage, or theft, meaning that these items have the potential to remain in situ long enough to be documented by researchers.

Kerma-style jewelry that may be found in such contexts include finger rings, flat or drop-shaped ivory or stone pendants, cowrie shell or ostrich eggshell beads, ivory bangle

bracelets, and ivory hoop earrings (Bonnet 2004; Smith 2003a). Other common personal items typical of the Kerma period consist of ostrich feather fans, bronze daggers, stone or ceramic spindle whorls and other implements, belts and sandals made from braided or twisted leather or sinew, leather pouches, and decorated or undecorated leather clothing (Bianchi 2004; see Chapter 4, this dissertation, for additional discussion of these items). Egyptian-style jewelry of the period in question here may consist of stone bangle bracelets; short necklaces strung with ceramic, faience, or stone beads; and scarabs or religious amulets carved in the form of patron deities and made from stone, ivory, or faience (Smith 2003a). Other personal items commonly signaling Egyptian influence include faience, ceramic, or stone figurines; sealing stones; metal tools and cosmetic implements; stone vessels, and weapons (Lacovara 1997; Williams 2006). Objects exhibiting Kerma influence, when they are decorated, tend to exhibit geometric decorative elements, while Egyptian-influenced objects may carry iconography depicting Egyptian deities, winged sun disks, pharaonic imagery, or hieroglyphic inscriptions (Williams 2006).

D. Summary

This chapter has summarized previous and ongoing research at the major Kerma centers at Sai Island and Kerma proper, highlighting the recent findings at these sites. The archaeological evidence from Kerma and Sai overwhelmingly demonstrate a trend toward the adoption of Egyptian cultural traditions alongside the downfall of the Kerma kingdom and concomitant rise in Egyptian control of Nubia. The chapter juxtaposes these patterns with the methods of excavation and analysis used to collect and interpret data at the rural Kerma sites of Hannek and Abu Fatima. The methods used to understand the ceramic, lithic, archaeobotanical, and archaeofaunal assemblages, as well as the architecture, burial

style, and personal items documented in these locations, serve to illuminate the patterns that inform our knowledge of how the expression of cultural identity manifests in the material realm. These manifestations, and the results of the research methods described above, are found in the following chapter.

VI. Continuity and Change: Manifesting Identities in Life and in Death

A. Introduction to the Chapter

Studies of culture contact and colonialism in recent decades have widely been concerned with culture change. Indeed, the concepts of ethnogenesis, hybridity, creolization, and entanglement have dominated the anthropological and sociological literature on intercultural interaction (e.g., Anderson 1983; Bhabha 1996; Cohen 1996; Hodder 2012; Wilkie 2000). Though these approaches are not above critique (see, for example, Harman 2014; Silliman 2015), there is no denying that contact and colonialism can and do incite change, whether it is abrupt or gradual. It is equally important, however, to recognize that not every intercultural encounter results in drastic changes in practice, consumption, or cultural identity. Instead, culture change may be minimal or occur not at all, as participants maintain their former lifeways and conceptualizations of self. In addition, different communities may have different lived experiences in contact settings. It is for this reason that archaeological investigations of these processes should be undertaken at the level of the individual community rather than treating 'cultures' as monolithic entities. This statement becomes especially meaningful when we consider that distinct communities within a given regional cultural group may be urban or rural, large or small. Furthermore, all such communities are made up of individual agents with diverse ideas, desires, and actions.

Hannek and Abu Fatima serve as particularly useful settings for examining these phenomena, due to the long history of contact between the Egyptian and Kerman states in which these communities were intertwined. As outlined in Chapter 2, Upper Nubia during the Kerma period was embedded in more than a millennium of multifaceted interactions that

included cooperation, exchange, and conflict, ultimately resulting in Egyptian colonization of the region. It is widely known that the kingdom of Kerma itself collapsed under Egyptian occupation, and the archaeological evidence overwhelmingly points to the loss of Kerma material culture and traditions in the former capital and in other urban centers. But what is lesser known is how the groups populating the Kerma hinterlands experienced those same political and social processes or how their roles in those processes shaped practice, patterns of consumption, and ultimately identities.

An in-depth analysis of multiple lines of material evidence, outlined briefly in Chapter 4, can provide insight into the ways in which hinterland communities participated in Kerman-Egyptian interactions, and how Egyptian colonialism may have affected the lives of those residing in these communities. Though it is impossible to obtain firsthand accounts of the impacts of contact on practices and identities among ancient peoples, archaeologists can use the material remains left behind by those peoples to better understand both quotidian and ritual activities. While material culture should by no means be used as a one-to-one proxy for cultural identity, using it in this way can provide meaningful clues as to the *habitus* of the producers and consumers of certain items. In this chapter, I begin by presenting the results of the analyses described in the preceding chapter, followed by a discussion of the wider reaching implications of those results. Finally, the chapter concludes with an outline of the benefits of a community-level approach with regard to understanding the impacts of contact and colonialism on the conceptualization and expression of cultural identity.

B. Results of Qualitative and Quantitative Analyses

The results of the various analyses described above are presented here. First, the qualitative and quantitative analyses for the ceramic and lithic assemblages from Hannek

and Abu Fatima are examined. Then, the faunal and botanical samples are discussed in concert to provide insight into foodways and mortuary ritual in these two communities. Lastly, discussions of architectural style, burial style, and personal effects examine cultural affinities at Hannek and Abu Fatima in conjunction with findings from the methods of analysis described above.

1. The Ceramic Assemblages

Nubian ordinary wares and Nubian coarse wares comprise the greatest portions of the ceramic repertoire in the Hannek settlement, together totaling nearly two-thirds of the total site assemblage (Figure 20; Table 7). Nubian finewares make up the next largest portion of the assemblage (18.02%). Thus, pottery exhibiting the traditional Kerma style at Hannek accounts for a total of nearly 85% of the entire ceramic repertoire. In contrast, Egyptian ordinary, coarse, and marl wares make up only about 5% of the site's overall assemblage, with Egyptian ordinary wares comprising the highest proportion of these imported types. Non-Egyptian imported wares, along with locally made wares dating to the medieval Christian period, account for less than 1% of all pottery recorded at the settlement. Approximately 10% of the total assemblage from Hannek was classified as unidentifiable because these sherds were either too small or too weathered to be categorized with any degree of certainty. In general, then, the greatest proportion of ceramics recorded at the Hannek settlement consists of locally made Kerma style wares, while only a small percentage of the pottery was imported either from Egypt or from farther afield.

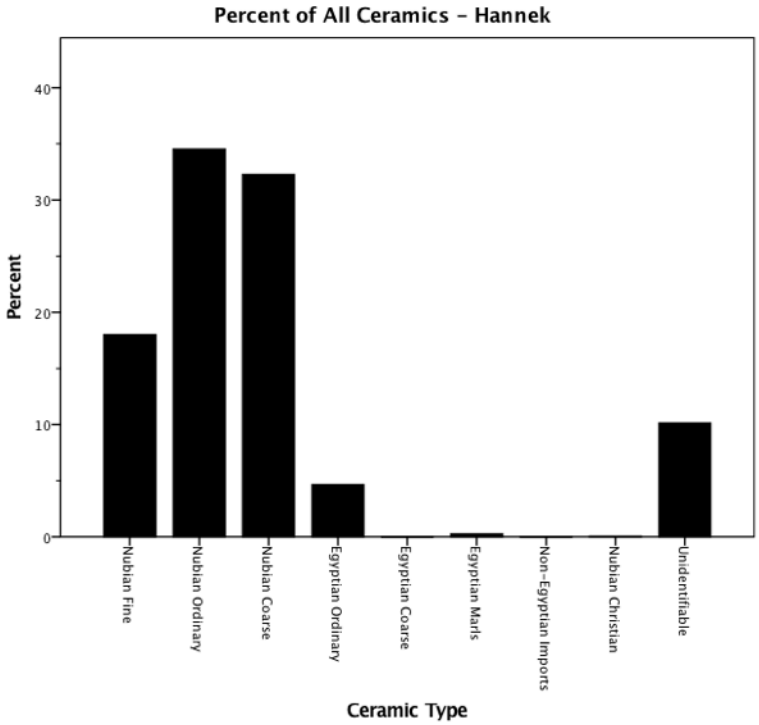


Figure 20. Frequency of all ceramic types by percent in the Hannek settlement assemblage.

Table 7. Counts and percents of all ceramic types in the Hannek settlement assemblage.

ALL UNITS		Count	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	14953	18.02%
Nubian Ordinary Ware	Black Top Nubian Incised Punctate Stamped	28652	34.54%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	26782	32.28%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	3870	4.66%
Egyptian Coarse Ware	Coarse - Wheelmade	11	0.01%
Egyptian Marl Ware	UE Marl Other Marls	223	0.27%
Non-Egyptian Imports	Imports	3	0.004%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	49	0.06%
Unidentifiable Sherds	Unidentified	8422	10.15%

When these figures are broken down according to individual areas at Hannek, several patterns become apparent. The composition of intra-site assemblages from Areas B, C, E, F, and G closely mirror the composition of the overall site assemblage (Figures 21-27; Tables 8-14). In these areas, the percentage of Nubian Kerma wares equals between approximately 83% and 90% of the ceramics documented in those contexts. Furthermore, Nubian ordinary and coarse wares comprise the largest portions of these intra-site assemblages, with Nubian finewares ranking third in terms of frequency. Notably, Area G contains a significantly lower proportion of Nubian finewares than the other areas discussed here, at only 10.46%. Egyptian wares, by contrast, total between about 2% and 9% of ceramics in those areas, with Egyptian ordinary wares accounting for the largest proportion of imports. As with the total site assemblage, non-Egyptian imports and Christian period Nubian wares comprise 1% or

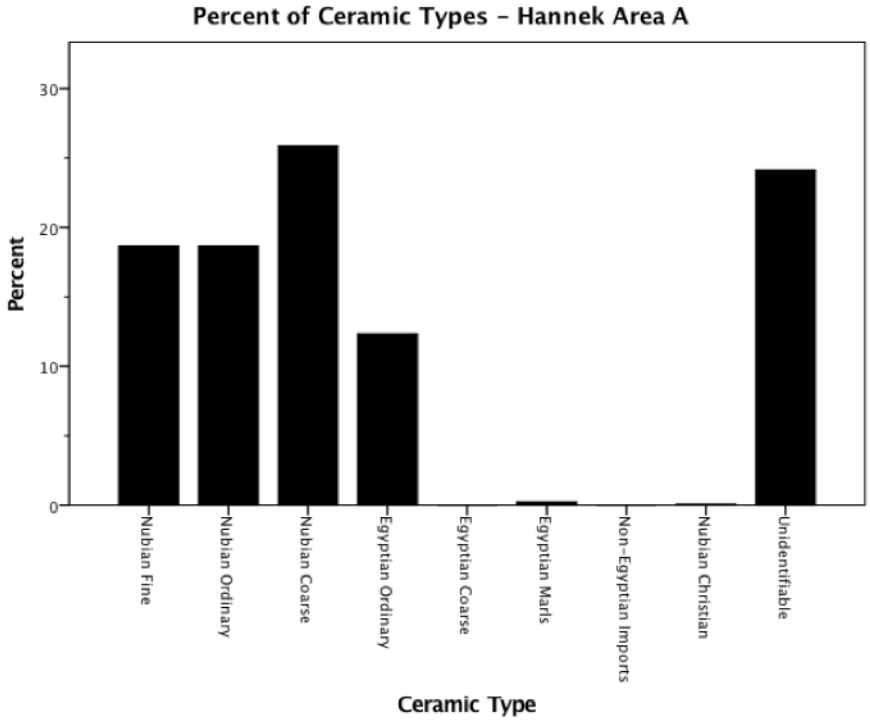
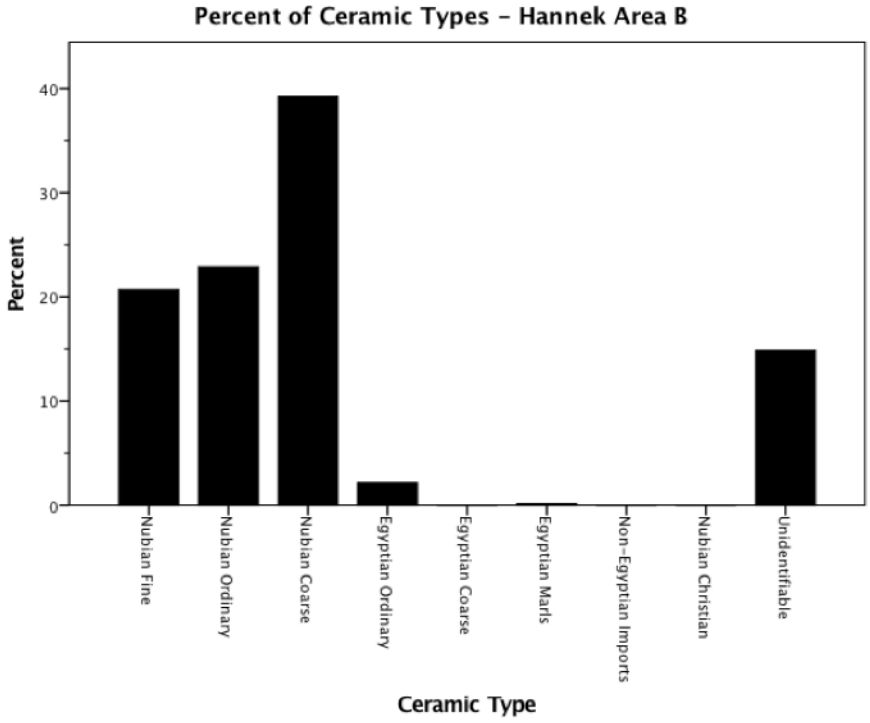
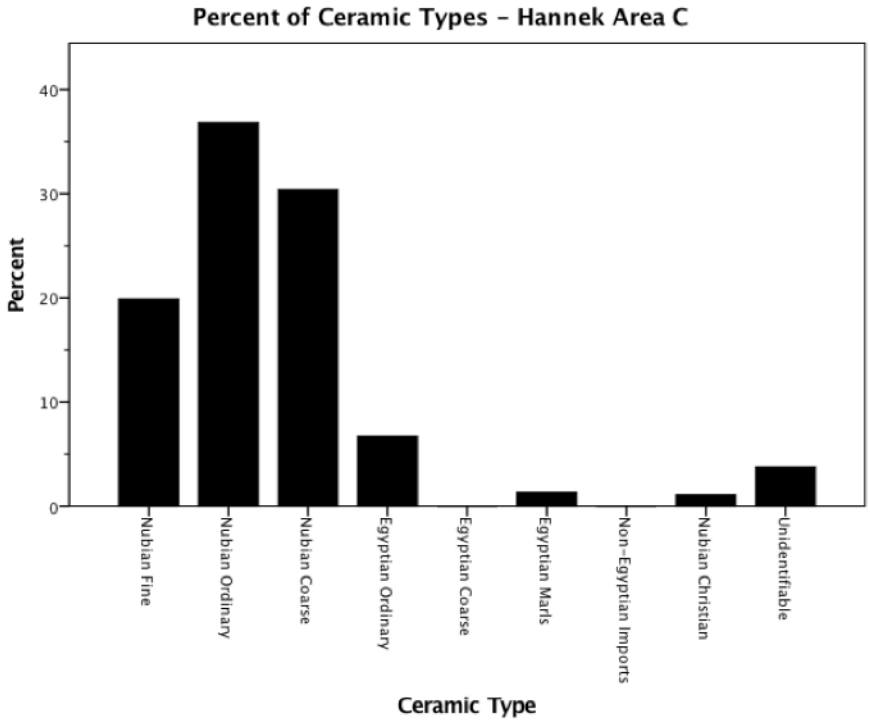
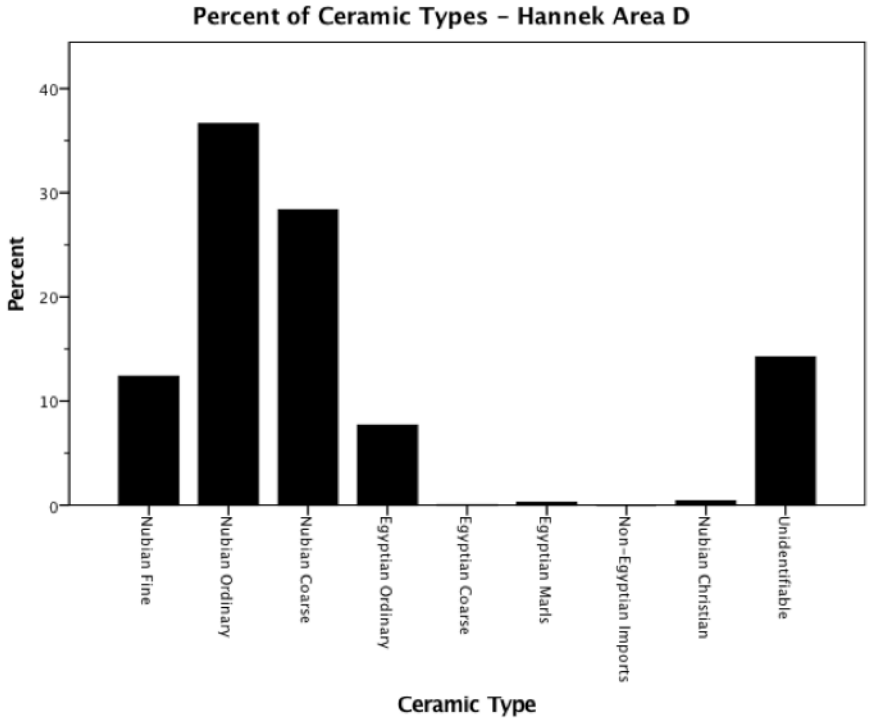


Figure 21. Frequency of ceramic types by percent in Area A of the Hannek settlement.





Figures 22 and 23. Frequency of ceramic types by percent in Areas B and C of the Hannek settlement.



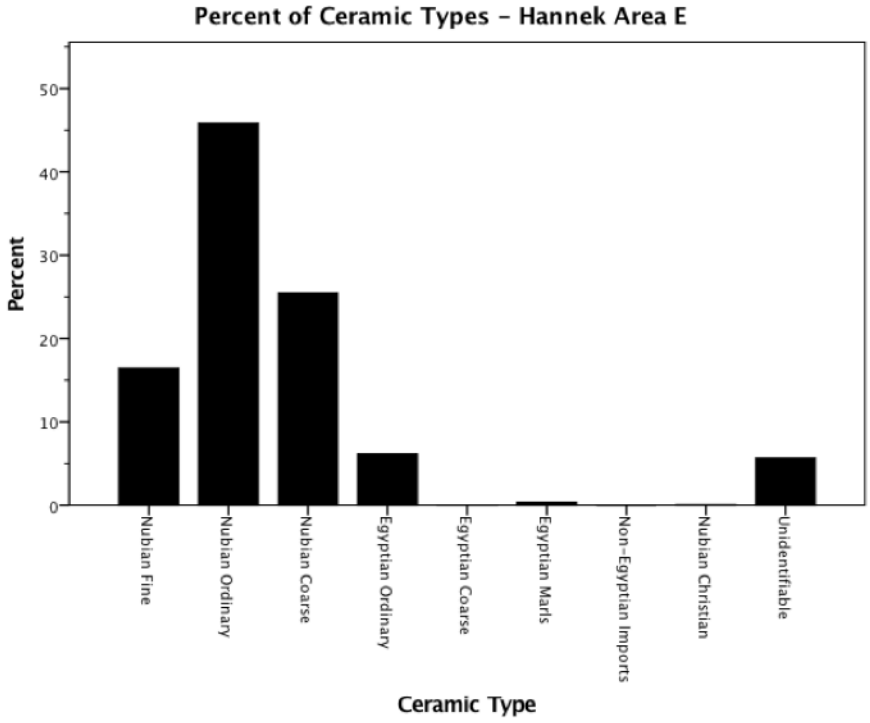


Figure 24 and 25. Frequency of ceramic types by percent in Areas D and E of the Hannek settlement.

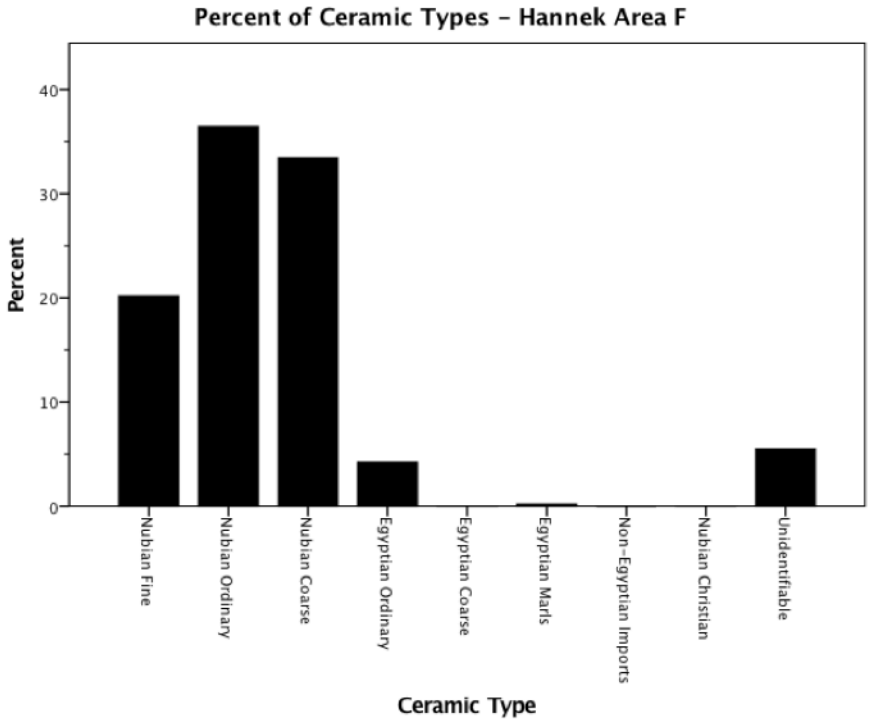


Figure 26. Frequency of ceramic types by percent in Area F of the Hannek settlement.

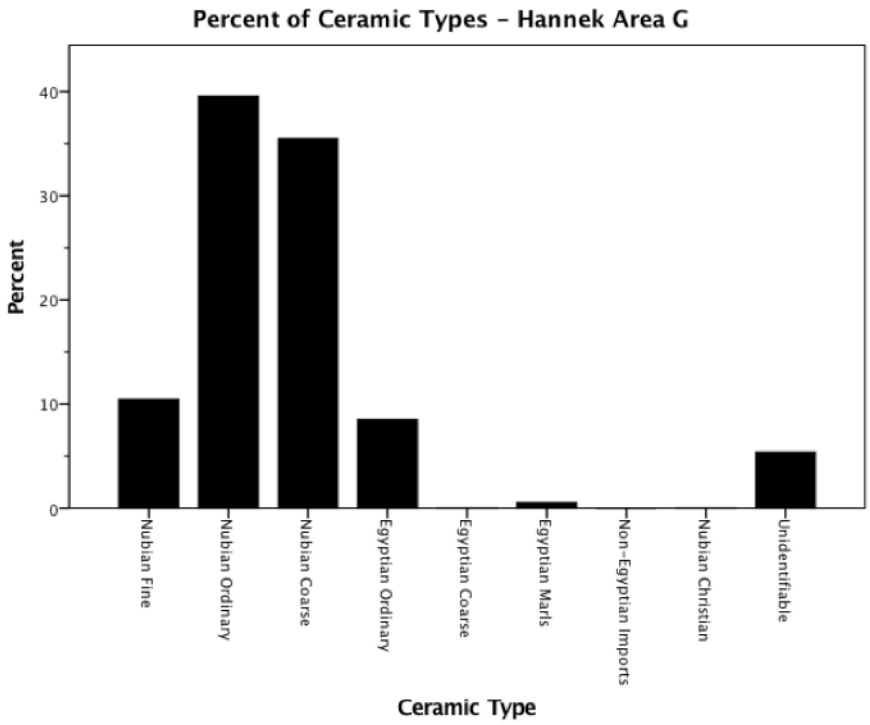


Figure 27. Frequency of ceramic types by percent in Area G of the Hannek settlement.

less of the pottery present in Areas B, C, E, F, and G. Unidentifiable sherds account for between 4% and 15% of the pottery in these five contexts.

Areas A and D at Hannek exhibit somewhat different patterns in their ceramic repertoires. The pottery in Area A (63.21%) and Area D (77.33%) consists of a considerably smaller percentage of Nubian wares. In addition, while Nubian ordinary and coarse wares make up approximately two-thirds of the ceramics in all areas as well as in the overall site assemblage, these two types make up less than half (44.54%) of the pottery in

Tables 8 and 9. Counts and percents of all ceramic types present in Areas A and B of the Hannek settlement.

AREA A		Count	Percent of area total	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	236	18.67%	0.28%
Nubian Ordinary Ware	Black Top Nubian Incised Punctate Stamped	236	18.67%	0.28%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	327	25.87%	0.39%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	156	12.34%	0.19%
Egyptian Coarse Ware	Coarse - Wheelmade	0	0.00%	0.00%
Egyptian Marl Ware	UE Marl Other Marls	3	0.24%	0.00%
Non-Egyptian Imports	Imports	0	0.00%	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	1	0.08%	0.00%
Unidentifiable Sherds	Unidentified	305	24.13%	0.37%

AREA B		Count	Percent of area total	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	6980	20.69%	8.41%
Nubian Ordinary Ware	Black Top Nubian Incised Punctate Stamped	7718	22.88%	9.30%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	13239	39.24%	15.96%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	729	2.16%	0.88%
Egyptian Coarse Ware	Coarse - Wheelmade	2	0.01%	0.00%
Egyptian Marl Ware	UE Marl Other Marls	53	0.16%	0.06%
Non-Egyptian Imports	Imports	3	0.01%	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	2	0.01%	0.00%
Unidentifiable Sherds	Unidentified	5012	14.86%	6.04%

Tables 10 and 11. Counts and percents of all ceramic types present in Areas C and D in the Hannek settlement.

AREA C		Count	Percent of area total	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	74	19.89%	0.09%
Nubian Ordinary Ware	Black Top Nubian Incised Punctate Stamped	137	36.83%	0.17%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	113	30.38%	0.14%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	25	6.72%	0.03%
Egyptian Coarse Ware	Coarse - Wheelmade	0	0.00%	0.00%
Egyptian Marl Ware	UE Marl Other Marls	5	1.34%	0.01%
Non-Egyptian Imports	Imports	0	0.00%	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	4	1.08%	0.00%
Unidentifiable Sherds	Unidentified	14	3.76%	0.02%

AREA D		Count	Percent of area total	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	601	12.38%	0.72%
Nubian Ordinary Ware	Black Top Nubian Incised Punctate Stamped	1776	36.60%	2.14%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	1376	28.35%	1.66%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	373	7.69%	0.45%
Egyptian Coarse Ware	Coarse - Wheelmade	2	0.04%	0.00%
Egyptian Marl Ware	UE Marl Other Marls	13	0.27%	0.02%
Non-Egyptian Imports	Imports	0	0.00%	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	21	0.43%	0.03%
Unidentifiable Sherds	Unidentified	691	14.24%	0.83%

Tables 12 and 13. Counts and percents of all ceramic types present in Areas E and F in the Hannek settlement.

AREA E		Count	Percent of area total	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	5433	16.44%	6.55%
Nubian Ordinary Ware	Black Top Nubian Incised Punctate Stamped	15149	45.84%	18.26%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	8418	25.47%	10.15%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	2034	6.15%	2.45%
Egyptian Coarse Ware	Coarse - Wheelmade	5	0.02%	0.01%
Egyptian Marl Ware	UE Marl Other Marls	118	0.36%	0.14%
Non-Egyptian Imports	Imports	0	0.00%	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	19	0.06%	0.02%
Unidentifiable Sherds	Unidentified	1872	5.66%	2.26%

AREA F		Count	Percent of area total	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	1278	20.18%	1.54%
Nubian Ordinary Ware	Black Top Nubian Incised Punctate Stamped	2308	36.44%	2.78%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	2118	33.44%	2.55%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	267	4.22%	0.32%
Egyptian Coarse Ware	Coarse - Wheelmade	1	0.02%	0.00%
Egyptian Marl Ware	UE Marl Other Marls	13	0.21%	0.02%
Non-Egyptian Imports	Imports	0	0.00%	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	1	0.02%	0.00%
Unidentifiable Sherds	Unidentified	347	5.48%	0.42%

Table 14. Counts and percents of all ceramic types present in Area G in the Hannek settlement.

AREA G		Count	Percent of area total	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	351	10.46%	0.42%
Nubian Ordinary Ware	Black Top Nubian Incised Punctate Stamped	1328	39.56%	1.60%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	1191	35.48%	1.44%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	286	8.52%	0.34%
Egyptian Coarse Ware	Coarse - Wheelmade	1	0.03%	0.00%
Egyptian Marl Ware	UE Marl Other Marls	18	0.54%	0.02%
Non-Egyptian Imports	Imports	0	0.00%	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	1	0.03%	0.00%
Unidentifiable Sherds	Unidentified	181	5.39%	0.22%

Area A. Moreover, Area D contains a comparatively small proportion of Nubian finewares (12.38%), similar to the percentage of finewares found in Area G (see above). Egyptian wares in Areas A (12.58%) and D (8.00%) were recorded at a significantly higher proportion than was found in any other area, or in the site assemblage as a whole. Egyptian ordinary wares accounted for the highest percentage of imported types in Areas A and D, consistent with all other areas and the overall site assemblage. Non-Egyptian imports and Christian period wares made up less than 1% of the assemblages for these areas, which also parallels the patterns noted sitewide. Unidentifiable sherds comprised nearly a quarter of the pottery from Area A and approximately 14% of the pottery from Area D. Although these variations across intra-site assemblages are present, it can still be said that in each area of the

Hannek settlement, local Kerma wares comprise the greatest proportion of ceramic types present across the site.

The ceramics comprising the Hannek assemblage also reveal that Hannek was likely occupied primarily during the Classic Kerma phase—that is, the latest part of the Kerma period—with a much smaller amount of pottery dating to earlier and later phases of occupation. The relative dates of the pottery was based largely on decorative treatment, as nearly all of the sherds were too small to discern vessel shape, rim diameter, or other diagnostic features. Less than 1% of all ceramics at Hannek could be assigned confidently to the Early or Middle Kerma phases. Early Kerma wares consist largely of finely made black top forms whose rims bear intricately incised, repeating geometric patterns. Pottery of the Middle Kerma phase also features incised geometric patterns, but these designs suggest a much hastier hand, and the pottery itself is less finely manufactured (Gratien 1978; Lacovara 1987). Most of these earlier ceramics, including the Nubian Incised and Nubian Coarse Incised specimens, are consistent with the Middle Kerma radiocarbon date discussed in Chapter 4. The Incised Fine Black Top specimens almost certainly date to the Early Kerma phase based on examples from other sites (e.g., Honegger et al. 2013).

Approximately 8% of the overall assemblage was made up sherds from the extremely fine, unincised beakers that typify the Classic Kerma phase. An additional 1.72% of the pottery consisted of the stamped utilitarian wares that are also characteristic of the later part of the Kerma period (Honegger et al. 2012). Other categories, including Nubian Coarse and Nubian Mat Impressed wares, as well as finewares without diagnostic characteristics, were more difficult to assign to a particular phase due to their persistence across time (Carrano et al. 2009; Welsby 2001; Bruce Williams, personal communication 2015). Similarly, the

Egyptian types present in the assemblages were also used widely in the region over a long period of time, but they are certainly well documented in New Kingdom contexts (e.g., Budka 2006, 2011; Ruffieux 2005, 2009; Smith 2003; Smith and Buzon 2014a). Finally, the ceramic evidence demonstrates that the site was (re-)used during the medieval Christian period, though sherds of this date are considerably fewer in number at less than 1% of the total assemblage.

The ceramics from the Abu Fatima cemetery exhibits similar broad patterns to those found at Hannek, with a few notable differences present in the proportions of various ceramic types between the two sites (Figure 28; Table 15) and in the dating of the pottery. By far, the greatest proportion of the Abu Fatima ceramic repertoire is composed of Kerma-style wares at 84.22%. Nubian finewares make up nearly half of the overall assemblage,

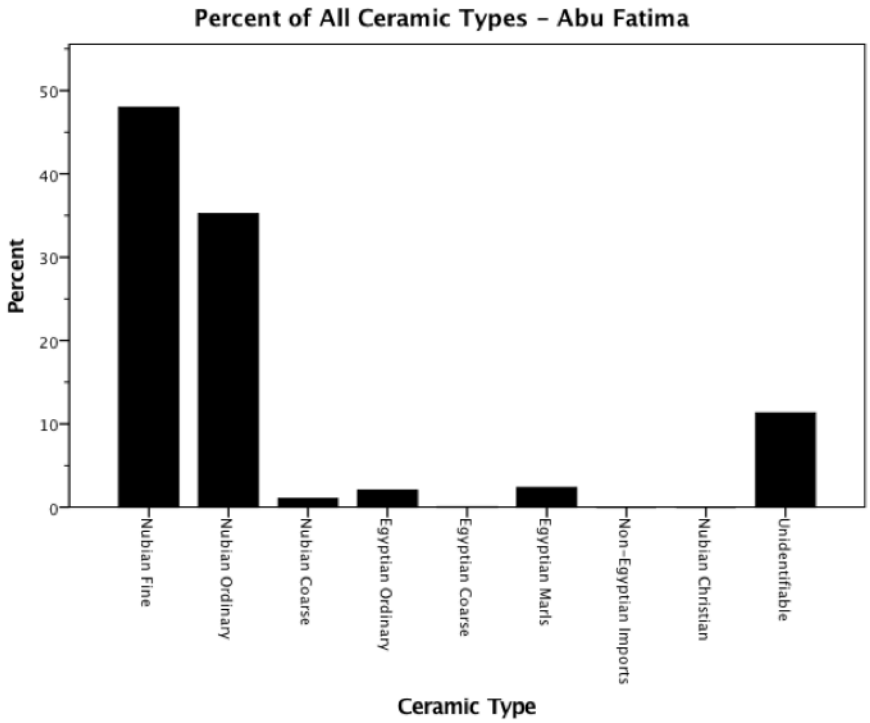


Figure 28. Frequency of all ceramic types by percent in the Abu Fatima cemetery assemblage.

Table 15. Counts and percents of all ceramic types within the Abu Fatima cemetery assemblage.

ALL UNITS		Count	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	1119	47.98%
Nubian Ordinary Ware	Black Top Molded Black Top Nubian Incised Punctate Stamped	821	35.21%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	24	1.03%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	48	2.06%
Egyptian Coarse Ware	Coarse - Wheelmade	1	0.04%
Egyptian Marl Ware	UE Marl Other Marls	55	2.36%
Non-Egyptian Imports	Imports	0	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	0	0.00%
Unidentifiable Sherds	Unidentified	264	11.32%

while Nubian ordinary wares account for just over one-third of all pottery. In contrast to the Hannek settlement, Nubian coarse wares make up only 1% of the total assemblage in the cemetery. Egyptian ordinary, coarse, and marl wares comprise approximately 5% of all ceramic types, which is comparable to the proportion of Egyptian pottery documented at Hannek. Of all Egyptian wares present at Abu Fatima, approximately half were categorized as ordinary wares with the remaining half classified as marl wares. Less than 1% of the Egyptian pottery consisted of Egyptian coarse wares. Non-Egyptian imports and Christian period Nubian wares were absent from the Abu Fatima assemblage, and 11.32% of all

sherds were classified as unidentifiable. These patterns indicate a heavy reliance of Kerma-style ceramics among the burials at Abu Fatima, with the comparatively small number of imports originating in Egypt.

When the ceramic distributions within the individual excavation units at Abu Fatima are examined, it becomes clear that the various ceramic types present in the overall site assemblage are distributed somewhat differentially across intra-site assemblages. Units 2 and 5 align most closely with the patterns present in the site assemblage as a whole (Figure 29-33; Tables 16-20). Nubian fine, ordinary, and coarse wares comprise 87.52% of the pottery from Unit 2, while these types account for 86.55% of the pottery from Unit 5. However, the proportion of Egyptian imported wares in Unit 2 (2.35%) was only about half the proportion of these wares in the overall assemblage for the site. In contrast, the

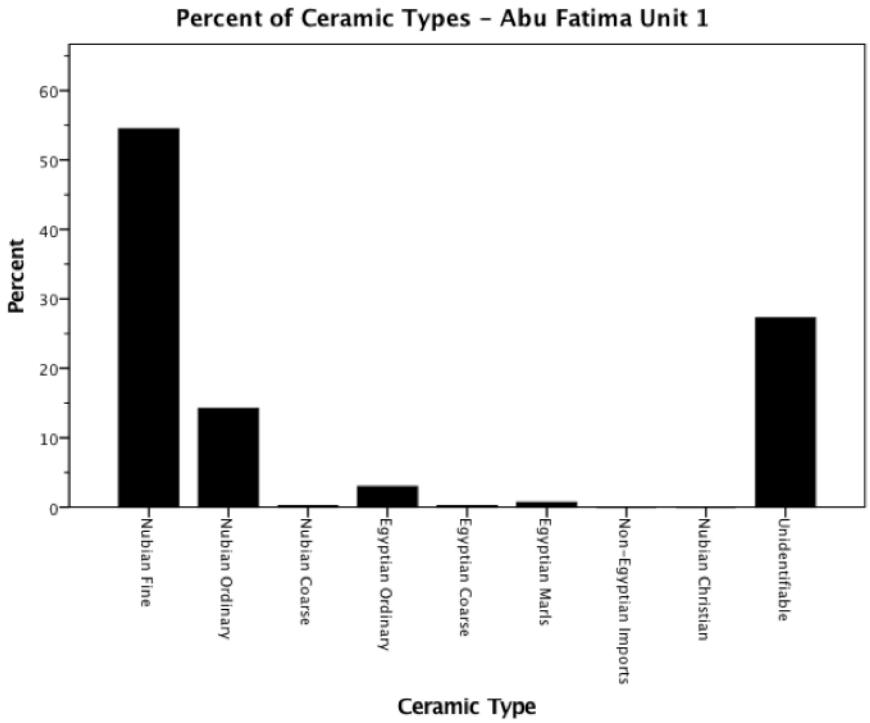
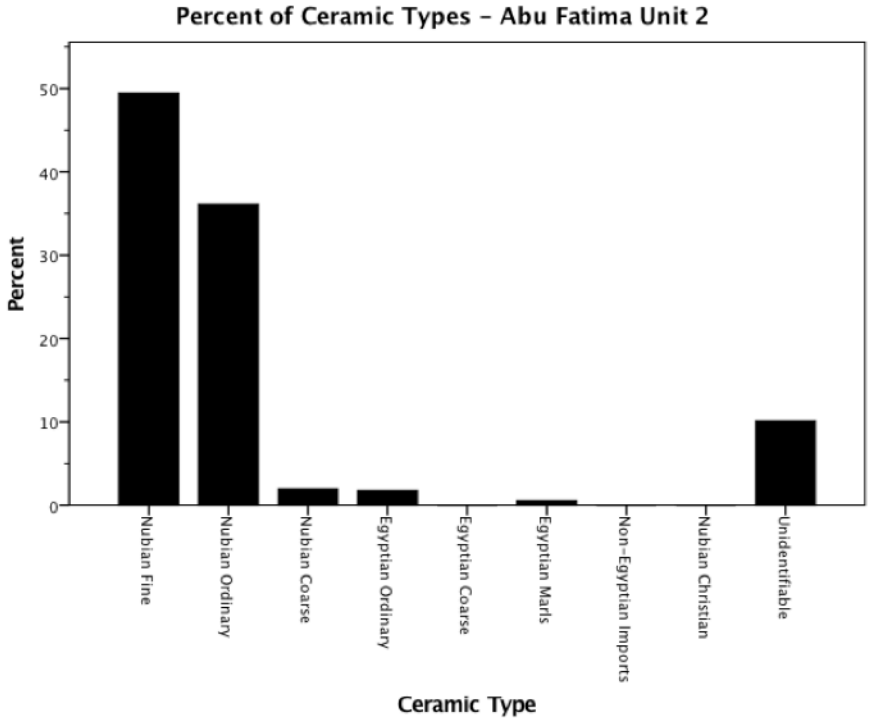
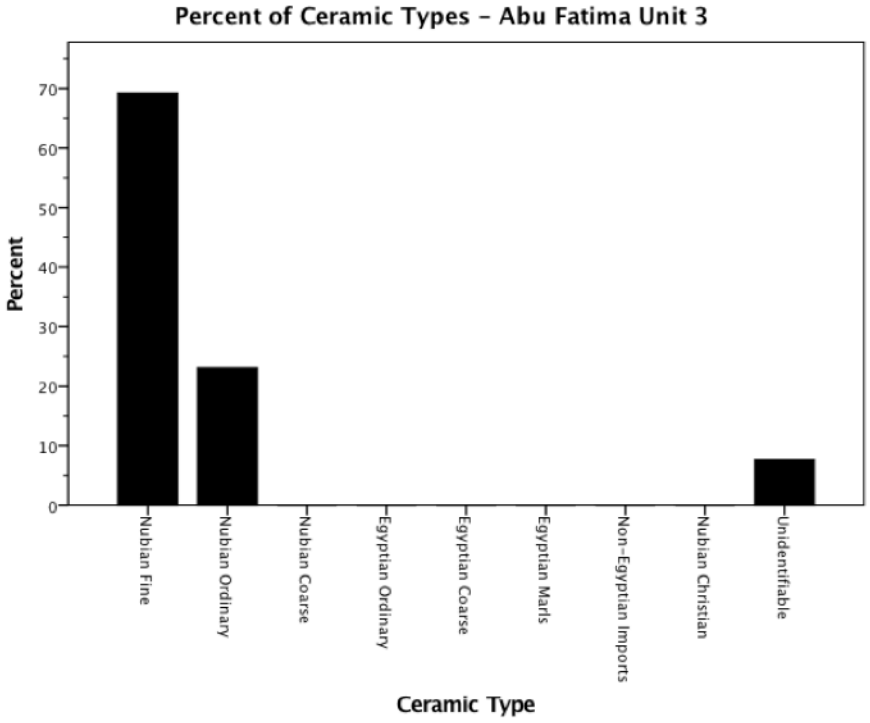
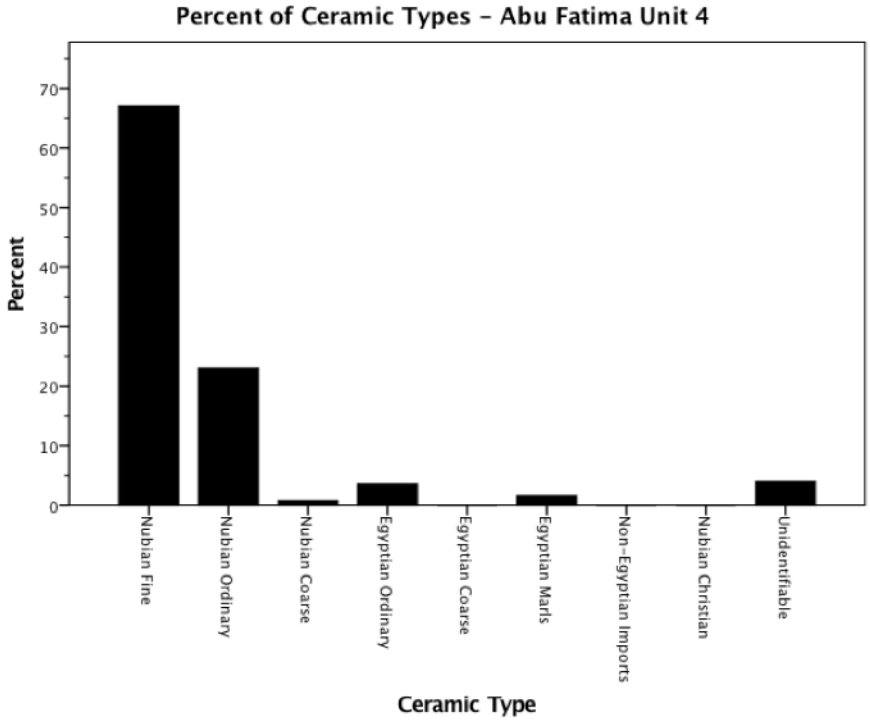


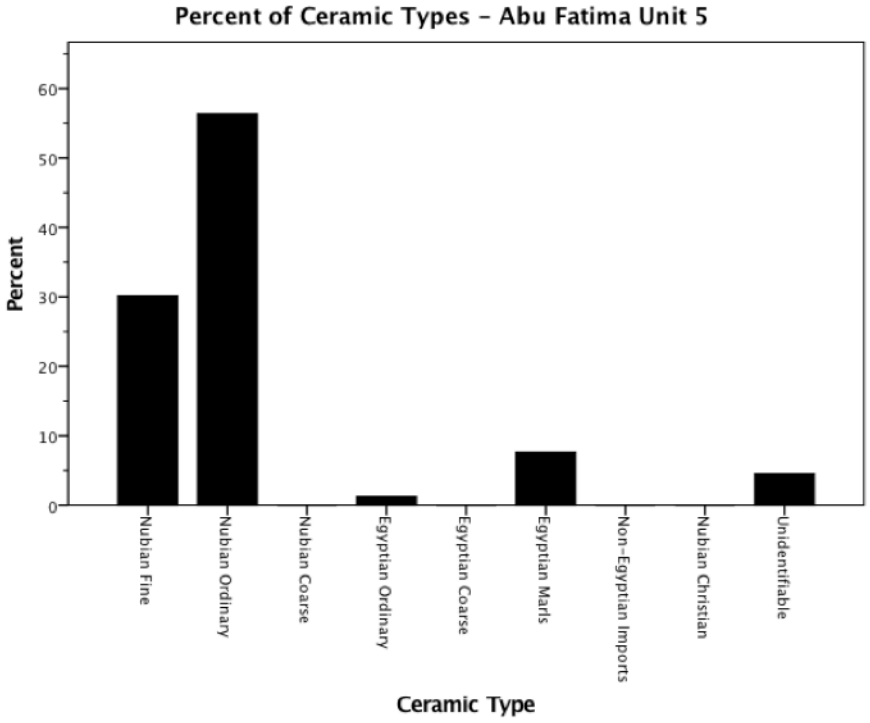
Figure 29. Frequency of ceramic types by percent in Unit 1 of the Abu Fatima cemetery.





Figures 30 and 31. Frequency of ceramic types by percent in Units 2 and 3 of the Abu Fatima cemetery.





Figures 32 and 33. Frequency of ceramic types by percent in Units 4 and 5 of the Abu Fatima cemetery.

percentage of Egyptian imports in Unit 5 (8.91%) was significantly larger than the percentage of Egyptian wares recorded for the site as a whole. The percentage of unidentifiable sherds in Unit 2 was roughly equal to that of the overall assemblage, while Unit 5 contained considerably less unidentifiable pottery.

Table 16. Counts and percents of all ceramic types present in Unit 1 at the Abu Fatima cemetery.

UNIT 1		Count	Percent of Unit total	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	238	54.46%	10.21%
Nubian Ordinary Ware	Black Top Molded Black Top Nubian Incised Punctate Stamped	62	14.19%	2.66%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	1	0.23%	0.04%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	13	2.97%	0.56%
Egyptian Coarse Ware	Coarse - Wheelmade	1	0.23%	0.04%
Egyptian Marl Ware	UE Marl Other Marls	3	0.69%	0.13%
Non-Egyptian Imports	Imports	0	0.00%	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	0	0.00%	0.00%
Unidentifiable Sherds	Unidentified	119	27.23%	5.10%

Tables 17 and 18. Counts and percents of all ceramic types present in Units 2 and 3 in the Abu Fatima cemetery.

UNIT 2		Count	Percent of Unit total	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	527	49.44%	22.60%
Nubian Ordinary Ware	Black Top Molded Black Top Nubian Incised Punctate Stamped	385	36.12%	16.51%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	21	1.97%	0.90%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	19	1.78%	0.81%
Egyptian Coarse Ware	Coarse - Wheelmade	0	0.00%	0.00%
Egyptian Marl Ware	UE Marl Other Marls	6	0.56%	0.26%
Non-Egyptian Imports	Imports	0	0.00%	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	0	0.00%	0.00%
Unidentifiable Sherds	Unidentified	108	10.13%	4.63%

UNIT 3		Count	Percent of Unit total	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	18	69.23%	0.77%
Nubian Ordinary Ware	Black Top Molded Black Top Nubian Incised Punctate Stamped	6	23.08%	0.26%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	0	0.00%	0.00%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	0	0.00%	0.00%
Egyptian Coarse Ware	Coarse - Wheelmade	0	0.00%	0.00%
Egyptian Marl Ware	UE Marl Other Marls	0	0.00%	0.00%
Non-Egyptian Imports	Imports	0	0.00%	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	0	0.00%	0.00%
Unidentifiable Sherds	Unidentified	2	7.69%	0.09%

Tables 19 and 20. Counts and percents of all ceramic types present in Units 4 and 5 in the Abu Fatima cemetery.

UNIT 4		Count	Percent of Unit total	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	169	67.06%	7.25%
Nubian Ordinary Ware	Black Top Molded Black Top Nubian Incised Punctate Stamped	58	23.02%	2.49%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	2	0.79%	0.09%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	9	3.57%	0.39%
Egyptian Coarse Ware	Coarse - Wheelmade	0	0.00%	0.00%
Egyptian Marl Ware	UE Marl Other Marls	4	1.59%	0.17%
Non-Egyptian Imports	Imports	0	0.00%	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	0	0.00%	0.00%
Unidentifiable Sherds	Unidentified	10	3.97%	0.43%

UNIT 5		Count	Percent of Unit total	Percent of site total
Nubian Fineware	Beaker Fine Black Top Incised Fine Black Top Handmade - Special	166	30.18%	7.12%
Nubian Ordinary Ware	Black Top Molded Black Top Nubian Incised Punctate Stamped	310	56.36%	13.29%
Nubian Coarse Ware	Nubian Mat Impressed Nubian Coarse Nubian Coarse Incised	0	0.00%	0.00%
Egyptian Ordinary Ware	Ordinary Ordinary Red Coat Ordinary Light Coat Limey Ordinary Fine Ordinary Fine Ordinary Red Coat Fine Ordinary Light Coat Chaffy Ordinary Chaffy Ordinary Red Coat Chaffy Ordinary Light Coat Chaffy White	7	1.27%	0.30%
Egyptian Coarse Ware	Coarse - Wheelmade	0	0.00%	0.00%
Egyptian Marl Ware	UE Marl Other Marls	42	7.64%	1.80%
Non-Egyptian Imports	Imports	0	0.00%	0.00%
Christian Period Nubian Types	Christian Ordinary Christian Orange Christian Yellow Christian Brown Christian Black Light Int Christian Polychrome Molded	0	0.00%	0.00%
Unidentifiable Sherds	Unidentified	25	4.55%	1.07%

The ceramics from Units 1, 3, and 4 exhibited somewhat different patterns of distribution from those in the contexts described above. Nubian fine, ordinary, and coarse wares account for slightly more than two-thirds of the pottery from Unit 1, which mirrors the general pattern observed in the Hannek settlement but is a significantly lower proportion of Kerma-style wares than was documented for the overall assemblage from Abu Fatima. In addition, the proportion of Egyptian imported ceramics is relatively low at only 3.89%. It is possible that the patterns in this unit can be explained by the relatively high percentage of unidentifiable sherds (27.23%) in Unit 1. If these sherds were classifiable, then they may account for the lower proportions of both local and imported wares. Units 3 and 4 contained relatively small percentages of unidentifiable sherds and considerably higher percentages of Kerma-style wares, with Nubian pottery accounting for more than 90% of the ceramics in each context. Notably, no imported pottery was documented in Unit 3. However, Egyptian imports accounted for approximately 5% of the Unit 4 ceramics, matching the proportion of imported wares found in the overall site assemblage.

Another noteworthy pattern presents itself when the relative proportions of different Nubian ceramic types are examined more closely across Units 1 through 5. As noted above, Nubian finewares comprised approximately half of the total ceramic assemblage from Abu Fatima. This pattern was also recorded in Unit 1 (54.46%) and Unit 2 (49.44%). Nubian finewares accounted for much greater proportions of the assemblages from Units 3 and 4, making up approximately two-thirds of the pottery in each of these contexts. In contrast, less than one-third of the pottery from Unit 5 consisted of local finewares, with more than half of the ceramics from this unit consisting of Nubian ordinary wares. In addition, the Egyptian imported ceramics documented in Unit 5 were largely Egyptian marl wares (7.64%

of the assemblage for this unit), contrasting with Units 1-4 in which the greatest proportion of imported pottery consisted of Egyptian ordinary wares.

The relative dates of the pottery from Abu Fatima, which were based on decorative treatments and vessel shape, are in close alignment with the dates resulting from the radiocarbon analysis. The ceramic assemblage spans the whole of the Kerma period, with vessels exhibiting the finely incised and molded rims typical of the Early and Middle Kerma phases, as well as the highly polished beakers and stamped utilitarian rims that are characteristic of Classic Kerma wares. As was the case with the ceramics from the Hannek settlement, Egyptian sherds were more difficult to submit to relative dating due to the persistence of styles over time. However, both the Nile silt and marl wares present in the assemblage are consistent with the repertoire of the period.

2. The Lithic Assemblages

The largest portion of the lithic assemblage from the Hannek settlement is composed of debitage, which makes up approximately two-thirds of all lithics from the site (Figure 34; Table 21). This is not surprising, given that stone tool production processes often result in a greater number of unusable flakes than those that can be used as expedient tools or worked into formal tools (Andrefsky 2006; Odell 2004). Of the actual tool types present in the Hannek assemblage, endscrapers and sidescrapers comprised the largest portion of the collection, with a combined total of slightly more than 16%. Cores also make up a relatively large part of the lithic assemblage, followed by burins and notched tools. The remaining tools types—projectile points, bifacial preforms, choppers, perforators, borers, and lunate, triangle, and trapeze tools—together comprise only 3% of the overall site assemblage from the settlement. In general, then, tools used for scraping, engraving or incising, and sawing

dominate the Hannek lithic repertoire, with cores used in tool production also making up a significant portion of the collection.

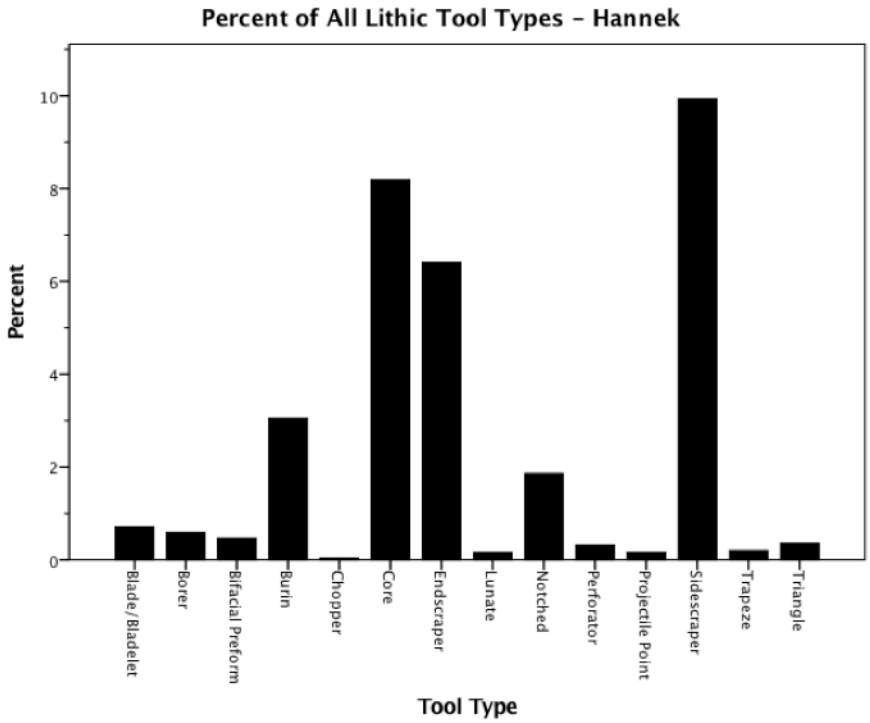


Figure 34. Frequency of all lithic tool types present in the Hannek settlement assemblage. Unmodified debitage removed for scale.

Table 21. Counts and percents of all lithic tool types present in the Hannek settlement assemblage.

ALL UNITS	Count	Percent of site total
Projectile point	4	0.16%
Bifacial preform	12	0.47%
Chopper	1	0.04%
Perforator	8	0.32%
Borer	15	0.59%
Endscraper	162	6.41%
Sidescraper	251	9.93%
Lunate tool	4	0.16%
Triangle tool	9	0.36%
Trapeze tool	5	0.20%
Burin/graver	77	3.05%
Blade/bladelet	18	0.71%
Notched/denticulate	47	1.86%
Core	207	8.19%
Uncertain/debitage	1707	67.55%

When examined individually, the intra-site assemblages from Areas A through G present a number of patterns that vary somewhat from the 0overall distribution of tool types for the site as a whole (Figure 35-41; Tables 22-28). Areas A, B, and D contained 4-5% more cores than were present within the overall site assemblage, while Areas C, E, F, and G contained only about half the percentage of cores as were present sitewide. In addition, Areas E, F, and G contained comparatively large proportions of lithic debitage. In contrast, only about half of the lithics in Areas B and C were classified as debitage, which is a significantly smaller proportion than was present in the overall assemblage. The percentage of debitage present in Areas A and D aligned closely with that of the site as a whole.

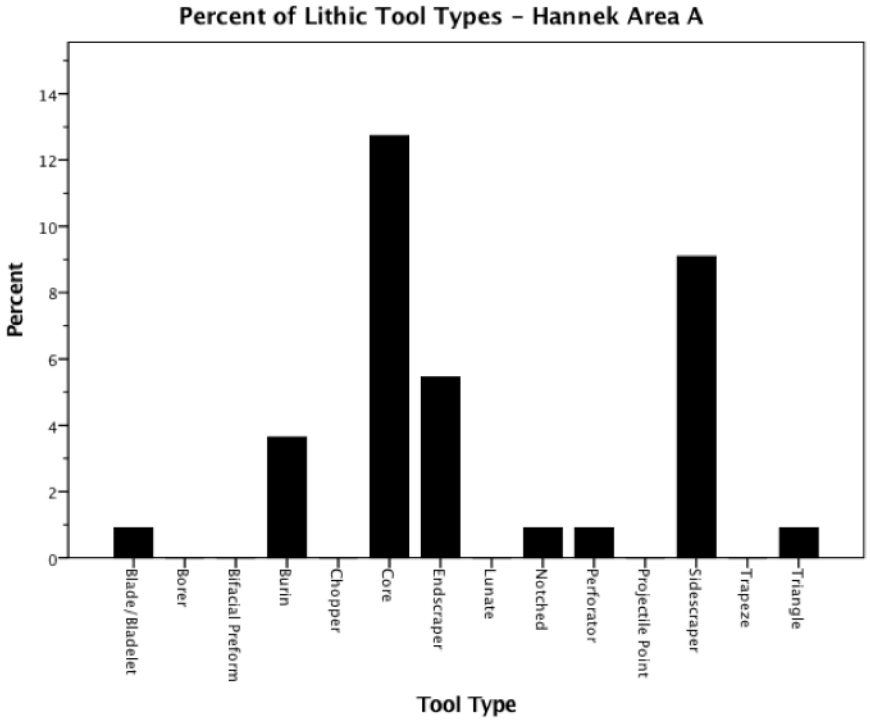
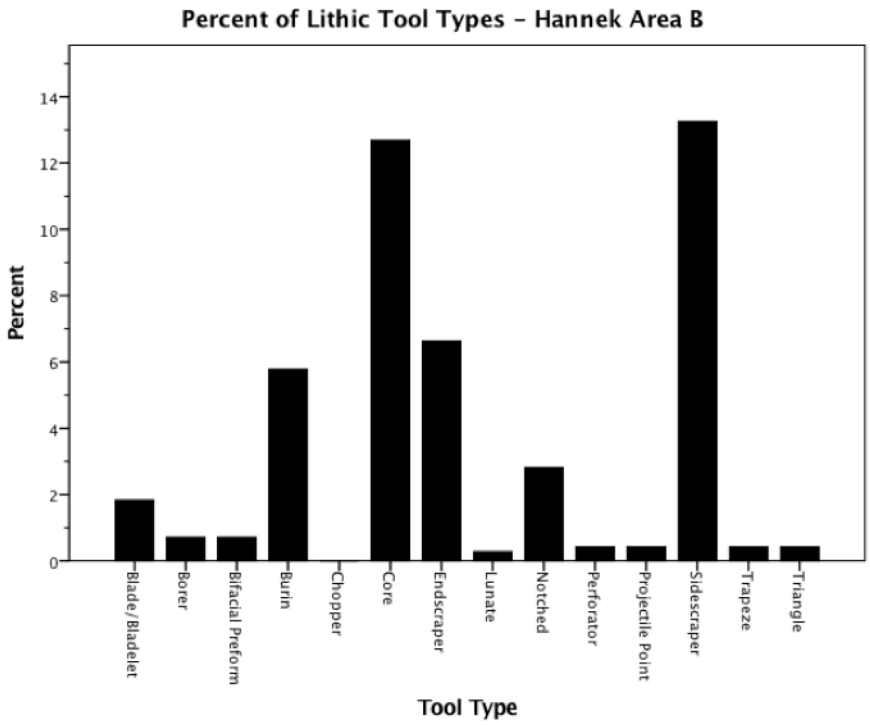
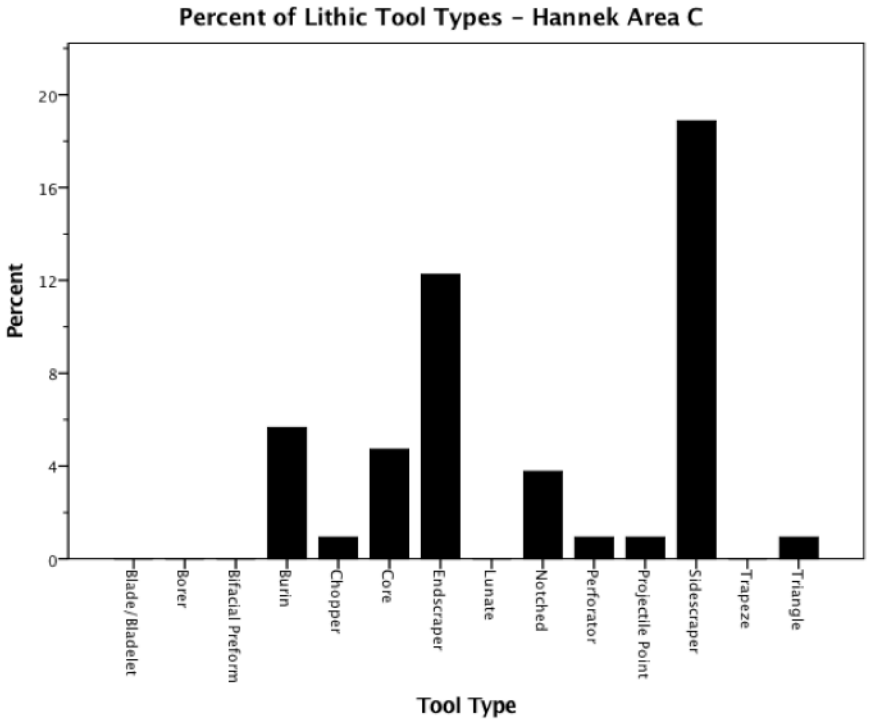
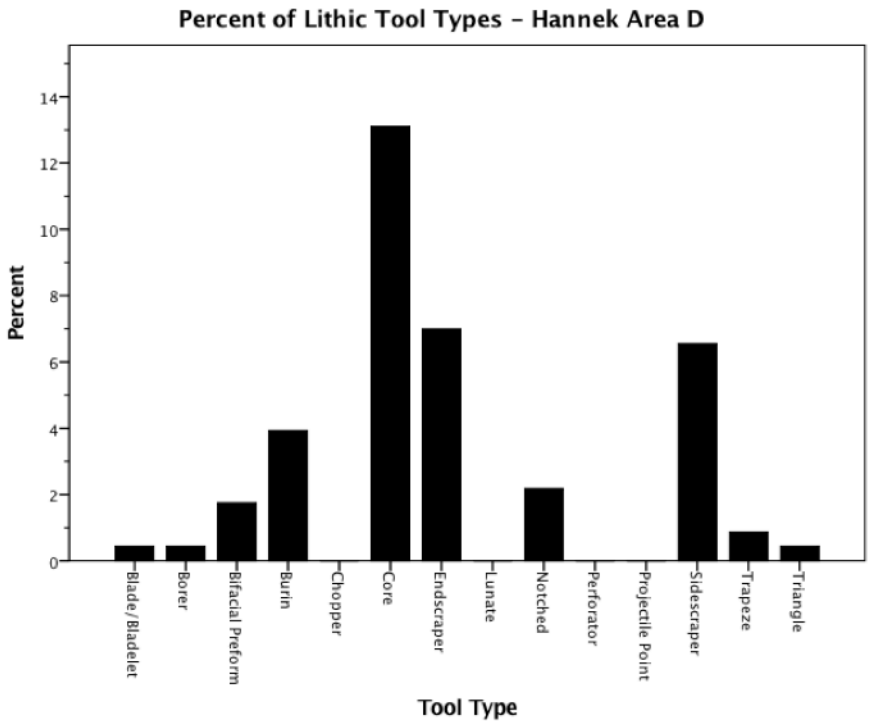


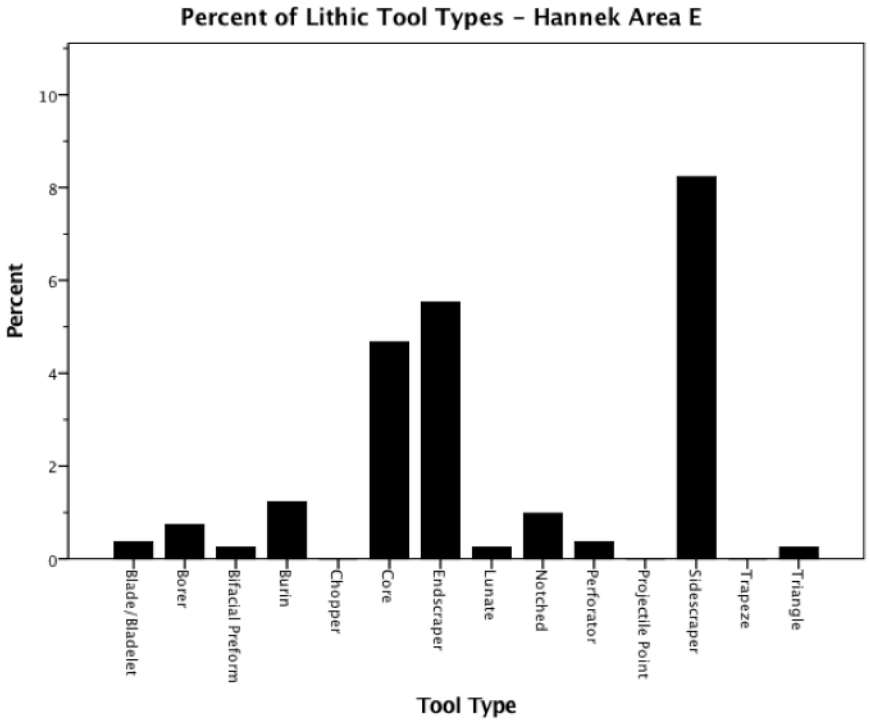
Figure 35. Frequency of lithic tool types by percent in Area A of the Hannek settlement. Unmodified debitage removed for scale.



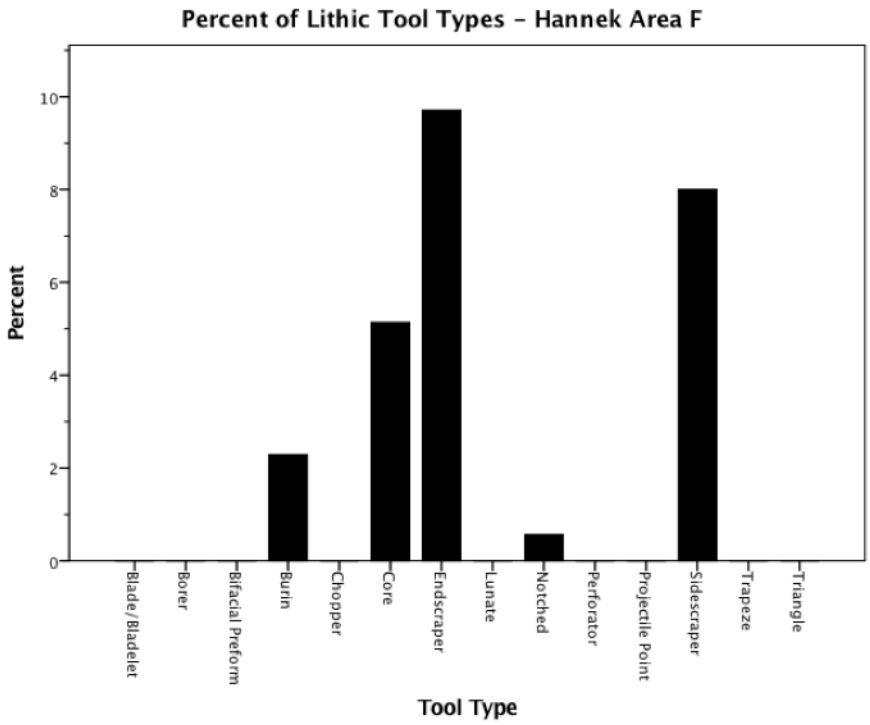


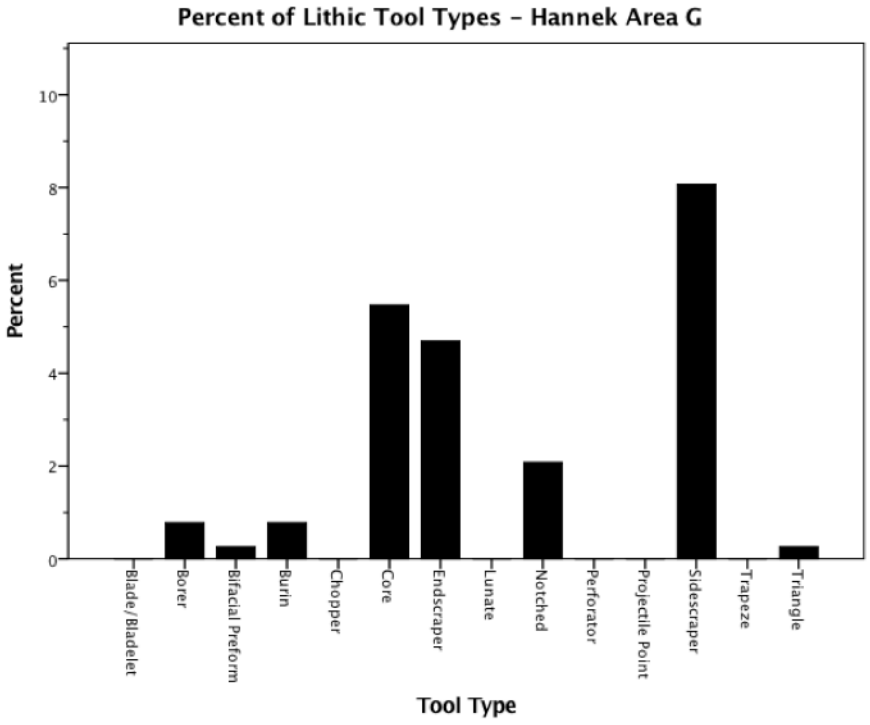
Figures 36 and 37. Frequency of lithic tool types by percent in Areas B and C of the Hannek settlement. Unmodified debitage removed for scale.





Figures 38 and 39. Frequency of lithic tool types by percent in Areas D and E of the Hannek settlement. Unmodified debitage removed for scale.





Figures 40 and 41. Frequency of lithic tool types by percent in Areas F and G of the Hannek settlement. Unmodified debitage removed for scale.

Table 22. Counts and percents of all lithic tool types present in Area A at the Hannek settlement.

AREA A	Count	Percent of area total
Projectile point	0	0.00%
Bifacial preform	0	0.00%
Chopper	0	0.00%
Perforator	1	0.91%
Borer	0	0.00%
Endscraper	6	5.45%
Sidescraper	10	9.09%
Lunate tool	0	0.00%
Triangle tool	1	0.91%
Trapeze tool	0	0.00%
Burin/graver	4	3.64%
Blade/bladelet	1	0.91%
Notched/denticulate	1	0.91%
Core	14	12.73%
Uncertain/debitage	72	65.45%

Table 23. Counts and percents of all lithic tool types present in Area B at the Hannek settlement.

AREA B	Count	Percent of area total
Projectile point	3	0.42%
Bifacial preform	5	0.71%
Chopper	0	0.00%
Perforator	3	0.42%
Borer	5	0.71%
Endscraper	47	6.63%
Sidescraper	94	13.26%
Lunate tool	2	0.28%
Triangle tool	3	0.42%
Trapeze tool	3	0.42%
Burin/graver	41	5.78%
Blade/bladelet	13	1.83%
Notched/denticulate	20	2.82%
Core	90	12.69%
Uncertain/debitage	380	53.60%

Table 24. Counts and percents of all lithic tool types present in Area C at the Hannek settlement.

AREA C	Count	Percent of unit total
Projectile point	1	0.94%
Bifacial preform	0	0.00%
Chopper	1	0.94%
Perforator	1	0.94%
Borer	0	0.00%
Endscraper	13	12.26%
Sidescraper	20	18.87%
Lunate tool	0	0.00%
Triangle tool	1	0.94%
Trapeze tool	0	0.00%
Burin/graver	6	5.66%
Blade/bladelet	0	0.00%
Notched/denticulate	4	3.77%
Core	5	4.72%
Uncertain/debitage	54	50.94%

Table 25. Counts and percents of all lithic tool types present in Area D at the Hannek settlement.

AREA D	Count	Percent of area total
Projectile point	0	0.00%
Bifacial preform	4	1.75%
Chopper	0	0.00%
Perforator	0	0.00%
Borer	1	0.44%
Endscraper	16	6.99%
Sidescraper	15	6.55%
Lunate tool	0	0.00%
Triangle tool	1	0.44%
Trapeze tool	2	0.87%
Burin/graver	9	3.93%
Blade/bladelet	1	0.44%
Notched/denticulate	5	2.18%
Core	30	13.10%
Uncertain/debitage	145	63.32%

Table 26. Counts and percents of all lithic tool types present in Area E at the Hannek settlement.

AREA E	Count	Percent of area total
Projectile point	0	0.00%
Bifacial preform	2	0.25%
Chopper	0	0.00%
Perforator	3	0.37%
Borer	6	0.74%
Endscraper	45	5.53%
Sidescraper	67	8.23%
Lunate tool	2	0.25%
Triangle tool	2	0.25%
Trapeze tool	0	0.00%
Burin/graver	10	1.23%
Blade/bladelet	3	0.37%
Notched/denticulate	8	0.98%
Core	38	4.67%
Uncertain/debitage	628	77.15%

Table 27. Counts and percents of all lithic tool types present in Area F at the Hannek settlement.

AREA F	Count	Percent of area total
Projectile point	0	0.00%
Bifacial preform	0	0.00%
Chopper	0	0.00%
Perforator	0	0.00%
Borer	0	0.00%
Endscraper	17	9.71%
Sidescraper	14	8.00%
Lunate tool	0	0.00%
Triangle tool	0	0.00%
Trapeze tool	0	0.00%
Burin/graver	4	2.29%
Blade/bladelet	0	0.00%
Notched/denticulate	1	0.57%
Core	9	5.14%
Uncertain/debitage	130	74.29%

Table 28. Counts and percents of all lithic tool types present in Area G at the Hannek settlement.

AREA G	Count	Percent of area total
Projectile point	0	0.00%
Bifacial preform	1	0.26%
Chopper	0	0.00%
Perforator	0	0.00%
Borer	3	0.78%
Endscraper	18	4.69%
Sidescraper	31	8.07%
Lunate tool	0	0.00%
Triangle tool	1	0.26%
Trapeze tool	0	0.00%
Burin/graver	3	0.78%
Blade/bladelet	0	0.00%
Notched/denticulate	8	2.08%
Core	21	5.47%
Uncertain/debitage	298	77.60%

In general, scrapers, burins, and notched tools comprise the highest percentages of the intra-site assemblages for all areas at Hannek, mirroring the patterns seen within the overall distribution of tool types across the site as described above. In addition to a prevalence of scrapers, burins, and notched tools, Area B contained two to five times the number of blades as any other area. Likewise, a relatively high proportion of bifacial preforms (1.75%) were present in the Area D lithic assemblage. Additionally, endscrapers and sidescrapers together comprised nearly one-third of the assemblage from Area C, a disproportionately high percentage compared to the overall site assemblage and to all other areas individually.

Though there were far fewer lithics documented in the Abu Fatima cemetery than in the Hannek settlement, there are some noteworthy patterns in the Abu Fatima lithic assemblage. The lithics at Abu Fatima were distributed across nine categories, compared to the 15 categories present within the Hannek assemblage. While debitage comprised the largest portion of the Hannek assemblage, only 15% of the Abu Fatima lithics were classified as

debitage (Figure 42; Table 29). When the percentage of cores (10%) is added, however, the total percentage of lithics related to tool production equals 25%. Of the post-production tool types, scrapers and burins make up the majority of the Abu Fatima lithics, with endscrapers and sidescrapers making up one quarter of the assemblage and burins making up another quarter. Triangle tools and cores each comprise 10% of the overall assemblage, while perforators, borers, and notched tools each make up 5% of the total collection from the cemetery. Thus, aside from production-related tools, the greatest proportion of lithic tool types associated with burials at Abu Fatima were tools used for scraping and engraving or incising. Tools for drilling, sawing, and other tasks occurred less frequently. These general trends are not unlike those documented within the Hannek lithic assemblage, described above.

As with the ceramic assemblage from Abu Fatima, the lithic assemblage was examined based on individual excavation unit in addition to being examined as a whole (Figures 43-45; Tables 30-32). No lithics were documented in any of the six burials located within Unit 1, or in the excavated portions of Unit 3. The lithics in Units 2 and 4 were distributed across four categories in each context, while those in Unit 5 were distributed across six categories. All lithics associated with tool production—that is, cores and debitage—were documented in Units 2 and 4, with these categories comprising 20% of the Unit 2 assemblage and half of the Unit 4 assemblage. Of the lithics in Unit 2, endscrapers and sidescrapers made up a combined total of 40% of all tools for this context, while triangle tools comprised the remaining 40%. The greatest proportion of lithic tools in Unit 4 consisted of burins (37.5%), while the remaining 12.5% of tools were classified as endscrapers. The distribution of types in Unit 5 matched most closely with the distribution of the site

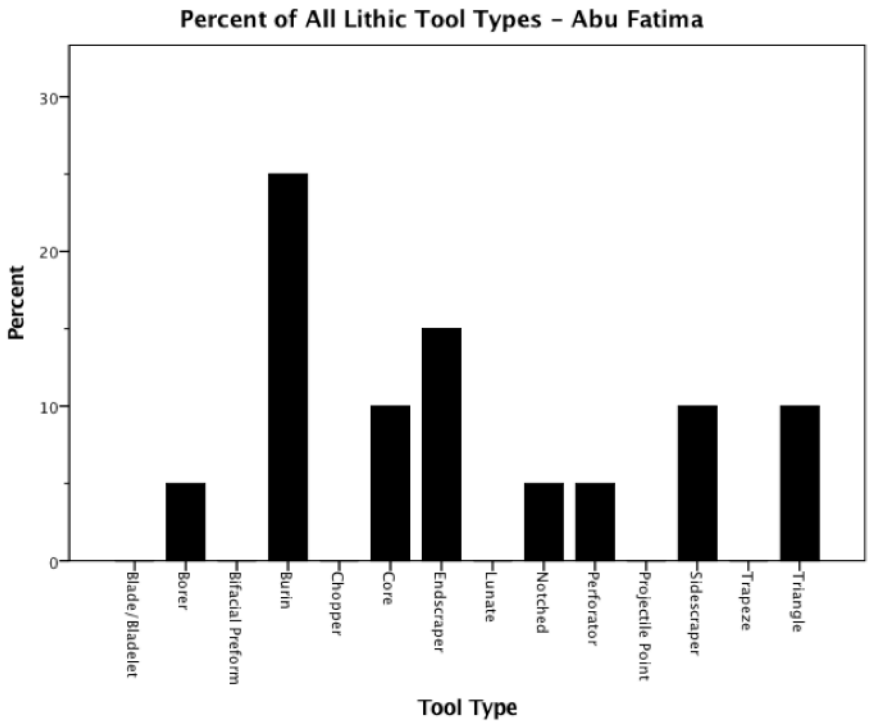


Figure 42. Frequency of all lithic tool types present in the Abu Fatima cemetery assemblage. Unmodified debitage removed for scale.

Table 29. Counts and percents of all lithic tool types present in the Abu Fatima cemetery assemblage.

ALL UNITS	Count	Percent of site total
Projectile point	0	0.00%
Bifacial preform	0	0.00%
Chopper	0	0.00%
Perforator	1	5.00%
Borer	1	5.00%
Endscraper	3	15.00%
Sidescraper	2	10.00%
Lunate tool	0	0.00%
Triangle tool	2	10.00%
Trapeze tool	0	0.00%
Burin/graver	5	25.00%
Blade/bladelet	0	0.00%
Notched/denticulate	1	5.00%
Core	2	10.00%
Uncertain/debitage	3	15.00%

assemblage as a whole. In this context, scrapers and burins each made up slightly more than one quarter of all tools, while perforators, borers, and notched tools made up a considerably smaller percentage (14.29% each). Unlike the overall site assemblage, however, no cores or debitage flakes were present within the Unit 5 lithics.

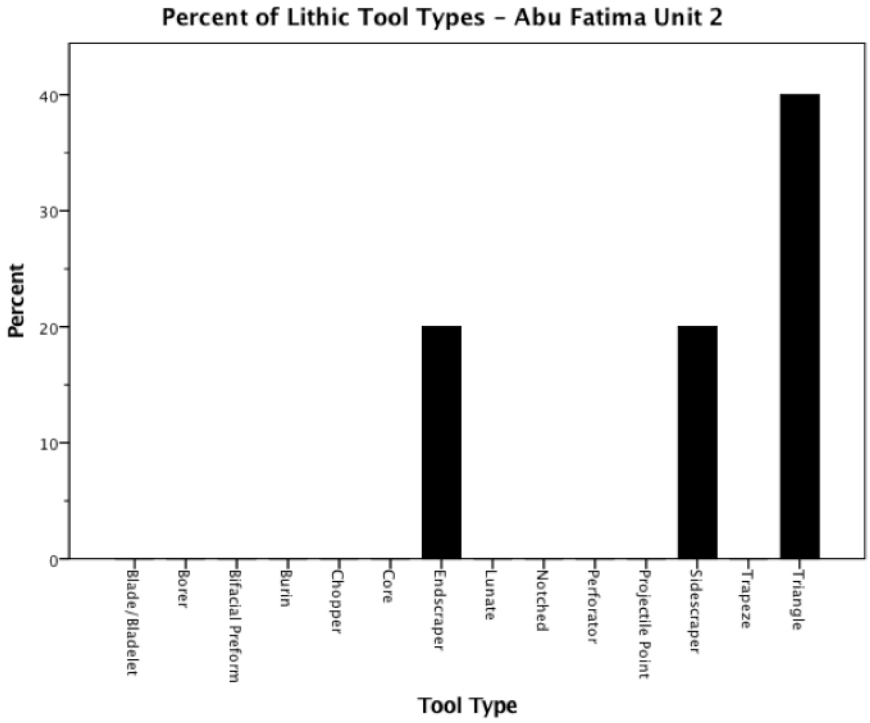
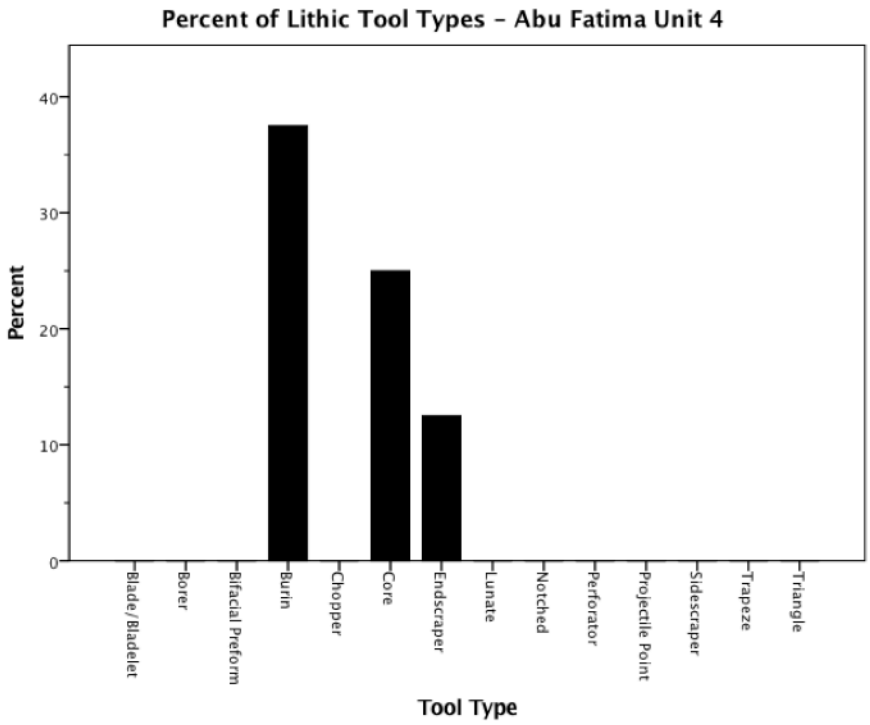
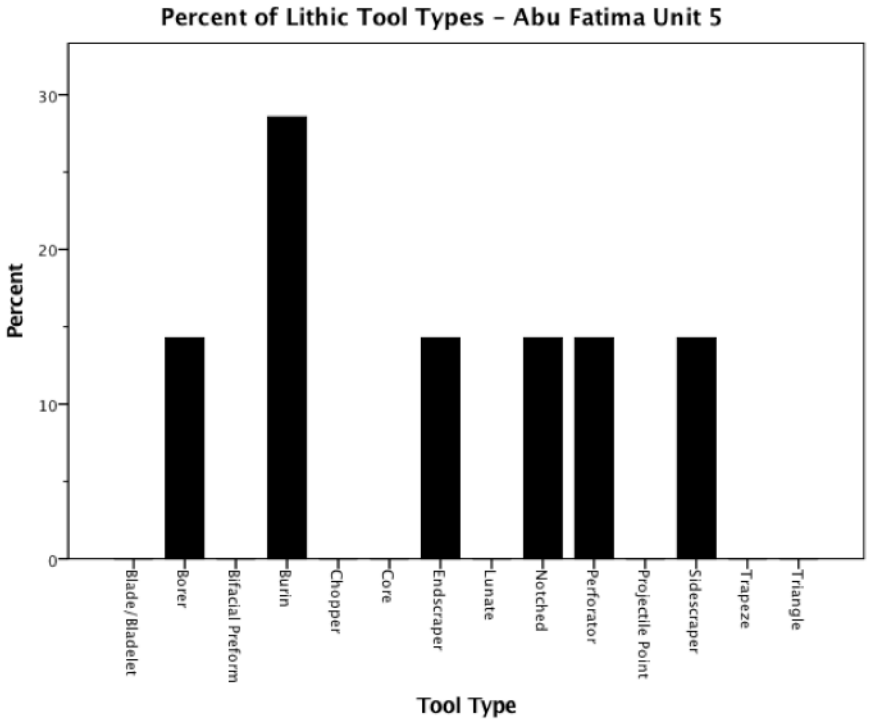


Figure 43. Frequency of lithic tool types by percent in Unit 2 of the Abu Fatima cemetery. Unmodified debitage removed for scale.





Figures 44 and 45. Frequency of lithic tool types by percent in Units 4 and 5 of the Abu Fatima cemetery. Unmodified debitage removed for scale.

Table 30. Counts and percents of all lithic tool types present in Unit 2 at Abu Fatima.

UNIT 2	Count	Percent of unit total
Projectile point	0	0.00%
Bifacial preform	0	0.00%
Chopper	0	0.00%
Perforator	0	0.00%
Borer	0	0.00%
Endscraper	1	20.00%
Sidescraper	1	20.00%
Lunate tool	0	0.00%
Triangle tool	2	40.00%
Trapeze tool	0	0.00%
Burin/graver	0	0.00%
Blade/bladelet	0	0.00%
Notched/denticulate	0	0.00%
Core	0	0.00%
Uncertain/debitage	1	20.00%

Table 31. Counts and percents of all lithic tool types present in Unit 4 at Abu Fatima.

UNIT 4	Count	Percent of unit total
Projectile point	0	0.00%
Bifacial preform	0	0.00%
Chopper	0	0.00%
Perforator	0	0.00%
Borer	0	0.00%
Endscraper	1	12.50%
Sidescraper	0	0.00%
Lunate tool	0	0.00%
Triangle tool	0	0.00%
Trapeze tool	0	0.00%
Burin/graver	3	37.50%
Blade/bladelet	0	0.00%
Notched/denticulate	0	0.00%
Core	2	25.00%
Uncertain/debitage	2	25.00%

Table 32. Counts and percents of all lithic tool types present in Unit 5 at Abu Fatima.

UNIT 5	Count	Percent of unit total
Projectile point	0	0.00%
Bifacial preform	0	0.00%
Chopper	0	0.00%
Perforator	1	14.29%
Borer	1	14.29%
Endscraper	1	14.29%
Sidescraper	1	14.29%
Lunate tool	0	0.00%
Triangle tool	0	0.00%
Trapeze tool	0	0.00%
Burin/graver	2	28.57%
Blade/bladelet	0	0.00%
Notched/denticulate	1	14.29%
Core	0	0.00%
Uncertain/debitage	0	0.00%

3. The Archaeofaunal Assemblages

A total of 768 bones and bone fragments were recovered from the Hannek settlement[8]. The faunal assemblage as whole is composed of mammals, reptiles, birds, and aquatic species. Mammal and non-mammal remains each comprise approximately half of the

Table 33. Counts and percents of all mammal remains present in the Hannek settlement assemblage.

ALL UNITS - mammal	Count	Percent of mammal remains	Percent of all faunal remains
Bos taurus	56	14.89%	7.29%
Caprini	58	15.43%	7.55%
Wild Bovids	15	3.99%	1.95%
Unidentified Mammal	247	65.69%	32.16%

[8] This total does not include mollusk shell fragments, which were not subjected to counting due to the friability of the remains.

overall faunal assemblage from Hannek, with a total of 376 mammalian specimens and 392 non-mammalian specimens (Monroe 2017a). Bones and fragments from at least one species within the *Caprini* genus—encompassing goat and sheep—were only slightly more numerous than those of *Bos taurus* (common cow), which comprised the next largest portion of the mammalian elements in the assemblage (Table 33). Based on the minimum number of elements (MNE) calculated for these species, then, the data indicate that the overall assemblage contains comparatively equal frequencies of small domesticated livestock (goat and sheep) as large livestock (cow) at Hannek. Wild bovid species were also represented in the collection from Hannek, though these examples appear in relatively low frequencies. Non-domesticated bovids are restricted to three species of small antelope, including *Sylvicapra grimmia* (common duiker), *Cephalophu sp.* (red duiker), and *Madoqua sp.* (dik-dik). No elements of medium or large wild bovid species were present in the assemblage. Unidentifiable mammal remains comprised nearly two-thirds of all mammal specimens, and nearly one-third of the faunal assemblage as a whole.

That domesticated bovids comprise the majority of the faunal material from Hannek is unsurprising, as this pattern is typical of other Kerma period assemblages in the region (Garcea and Hildebrand 2009; Thompson et al. 2008). Put another way, the faunal evidence for various Kerma groups indicates that these communities, in general, had greater reliance on domesticated species than on wild game acquired through hunting. Evidence from Kerma period settlement and mortuary data also indicate that cows were a highly important part of the Kerma livelihood, both for subsistence and in ritual contexts (Bonnet and Valbelle 200j6; Garcea and Hildebrand 2009; Gratien et al. 2002).

In addition to the range of mammalian species present in the Hannek faunal assemblage, a total of 392 non-mammalian specimens were also present in various contexts within the settlement. The remains of non-mammals included birds, mollusks, vertebrate fishes, and at least one species of amphibious reptile (Table 34). Bird remains comprise the largest proportion of the non-mammal species in the assemblage, with slightly more than two-thirds of all non-mammal remains consisting of primarily ostrich eggshell fragments. Reptile, fish, and mollusk species were present in relatively equal proportions (approximately 10% each of all non-mammalian specimens). Unidentifiable non-mammals made up only about 13% of all non-mammal remains and less than 7% of all faunal remains present in the Hannek assemblage.

Nearly all eggshell fragments were classified as *Struthio camelus* (common ostrich). Although ostrich eggs were likely eaten, the shells of the eggs were also used in their own right, usually as a raw material for beadmaking (Emberling 2009; Minor 2012). Moreover, some contexts at Hannek in which ostrich eggshell fragments were present did not contain other faunal remains. Thus, it should be noted that not all such fragments can be assumed to be food refuse.

Table 34. Counts and percents of all non-mammal remains present in the Hannek settlement assemblage. Mollusk shell fragments not counted due to friability of remains.

ALL UNITS - non-mammal	Count	Percent of non-mammal remains	Percent of all faunal remains
Mollusk	N/A	N/A	N/A
Fish	39	9.95%	5.08%
Reptile	37	9.44%	4.82%
Eggshell (bird)	263	67.09%	34.24%
Unidentified Non-Mammal	53	13.52%	6.90%

A small portion of all eggshell fragments present in the assemblage was much more delicate in nature compared to the much thicker, stronger composition of ostrich eggshells, indicating that they derived from a smaller species of bird (Monroe 2017a). Although these examples were not identifiable at a specific level, they are likely to have originated from a species of nonpasserine (non-perching) bird, as such species tend to produce eggs that are plain in appearance. Conversely, passerine (perching) birds tend to produce colorful and/or spotted eggs. The evidence for these shell fragments to belong to a nonpasserine species is strengthened by the presence of a distal femur from a small, nonpasserine bird. With this information in mind, these specimens may potentially be classified within any one of several families of nonpasserines native to the Third Cataract region, such as *Turnicidae* (buttonquail), *Apodidae* (swift), or *Coliidae* (mousebird).

Of the mollusks present in the assemblage, all were classified as bivalves, though it was not possible to identify individual genera or species, due to the size and preservation of shell fragments. Fish remains were also largely unidentifiable more specifically than the taxonomic class *Osteichthyes* (bony fish), though it was possible to classify some specimens as *Lates niloticus* (Nile perch) within the site assemblage. Similarly, despite being nearly as abundant as fish remains, reptile remains were largely unidentifiable by species due to the absence of a sufficient comparative collection available to the faunal analyst. However, all reptile elements were classifiable within the taxonomic order *Testudines* (turtle), and at least one species was identifiable within the collection: *Trionyx triunguis* (African/Nile softshell turtle). This species of turtle has also been identified in the faunal remains from a Middle Kerma context in the settlement at Kerma proper (Iacumen et al. 1998).

When the spatial distribution of mammalian and non-mammalian faunal species is examined across individual areas within the Hannek settlement, a number of patterns become apparent. In particular, it is notable that very few postcranial cow elements were present in the Hannek assemblage. Only 2 such fragments were identified, both from a lower limb, and both were collected from Area E of the settlement. All other cow elements were cranial fragments recovered from Areas B, C, D, E, and G, making them relatively widely dispersed across the site. Goat and sheep remains were also widely dispersed, with cranial elements found in all areas with the exception of Area F and various postcranial elements found in Areas A, B, C, and E. Cranial fragments from wild bovids were present only in Areas D and E, while multiple lower limb elements from wild bovid species were present more widely, in Areas B, C, E, and F. Unidentifiable mammal specimens were present in all areas of the site aside from Area F. Cranial fragments from unidentifiable species were found in Areas B, C, D, E, and G, while postcranial fragments including those from pelvic group and lower limb elements were found in Areas A, B, D, and E.

Thus, in general, all mammal species present within the assemblage from the Hannek settlement were present in all areas of the site. However, Area F contained only one faunal element, which was from the lower limb of a wild bovid. In addition, cow remains were less prevalent than expected for a Kerma period occupation site, with those remains present coming from portions of the animal—namely crania and limbs—that contain relatively small quantities of meat. However, age analysis of the identifiable remains indicate that domesticated livestock from a wide range of ages are present, suggesting that the animals were raised within the community rather than received as the result of intercommunity exchange of individual animals.

Patterns were also visible in the non-mammalian species in terms of spatial distribution across the Hannek settlement. Mollusks—primarily Nile oyster, but also some examples of unidentifiable shell—were present in all areas of the site with the exception of Area G. Fish remains exhibited a similar pattern of distribution, with specimens present in all areas of the site aside from Area D. Reptile elements were recovered from all seven areas of the settlement, as were fragments of eggshells from ostrich and one unidentifiable bird species. Finally, non-mammalian elements that were otherwise unidentifiable were present in all but two areas of the site—such specimens were absent from collections in Areas A and C. Thus, it is evident that like the mammalian examples, non-mammal remains were ubiquitous throughout the Hannek settlement. There were, notably, no areas that contained only particular non-mammalian species, though no fish were present in Area D and no mollusks were present in Area G.

Of the 768 faunal specimens in the Hannek assemblage, approximately 10% exhibited visible evidence of human modification (Table 35). Such modifications appear to have been the result of food preparation and included burning and calcination, as well as marks associated with cutting and chopping. Although burned and/or calcined bone comprises the largest portion of modified faunal remains at 70% of all modified bone, only a small portion

Table 35. Counts and percents of all modified faunal bone present in the Hannek settlement assemblage.

ALL UNITS - modified bone	Count	Percent of modified remains	Percent of all faunal remains
Calcined	43	53.75%	5.60%
Burned	13	16.25%	1.69%
Calcined or burned (uncertain)	20	25.00%	2.60%
Cut	2	2.50%	0.26%
Chopped	2	2.50%	0.26%

of the entire assemblage (7.29%) exhibit evidence of these types of modification. In addition, only four specimens—less than 1% of all faunal remains—displayed either cut marks or evidence of chopping. A number of specimens exhibited a dark color that initially appeared to be indicative of burning, but upon further inspection, it was determined that the discoloration was likely due to taphonomic processes such as mineral staining by manganese oxide (Monroe 2017a).

The faunal remains present at the Abu Fatima cemetery were only somewhat less numerous than those documented at Hannek, with a total of 602 individual elements present in the assemblage, many of which were partially or fully articulated. The faunal remains at Abu Fatima exhibited excellent preservation—in stark contrast to those from the Hannek settlement—allowing for a high degree of unambiguous taxonomic identification to at least the genus level. In addition to bones and bone fragments, a large amount of soft tissue, cartilage, and fur/hair were present within the burial contexts. A total of four species were represented in what can reasonably be ascertained as deliberate burial inclusions: *Ovis aries* (domestic sheep), *Capra hircus* (domestic goat), *Canis familiaris* (domestic dog), and *Struthio camelus* (common ostrich). Ostrich bone itself was not observed in the assemblage, but the species was present in the form of eggshell fragments. Snail shells, eggshell fragments belonging to unidentifiable bird species, and a single *Bos taurus* (common cow) tooth were also present, but these specimens are believed to be modern intrusions (Monroe 2017b). Unlike in the cemeteries at Kerma and Sai, no bucrania were present, either fragmentary or intact.

Based on patterns of epiphyseal fusion, all caprines documented within the cemetery were less than two years of age at the time of death (Monroe 2017b). In addition, it appears

that while goats tended to be skinned and butchered prior to deposition into units that are consistent with food preparation, sheep tended to be buried intact with little or no postmortem modification. No goat crania were present among the caprine remains, and goat specimens tended to be younger than those of sheep. A number of caprine remains were disarticulated and documented in disturbed contexts, eliminating the possibility for analyzing their ritual deposition.

Only one example of domesticated dog was present within the assemblage, though the animal was nearly completely articulated aside from the cranium. Domesticated dogs have been documented elsewhere in the Nile Valley, both at Kerma and in Egyptian contexts (Bonnet and Valbelle 2006; Chaix 1999). Previously recorded examples have been placed within two distinct categories: mastiff type, which are argued to have been used a fighting and guard dogs, and greyhound type, which are said to have served as herding and hunting dogs. Physiologically, the dog found at Abu Fatima falls into the greyhound typological category (Monroe 2017b). Heavy wear on the animal's teeth, along with evidence for arthritis in the vertebral column, suggest that the dog was relatively advanced in age at the time of its death. The dog was buried alongside the human remains in the burial, and around its neck had been placed a leather collar, indicating its possible role as a companion to the deceased.

4. The Archaeobotanical Assemblages

As noted above, all archaeobotanical remains discussed here were collected from the Hannek settlement, as soil samples were not taken from the Abu Fatima cemetery. Due to the small number of soil samples and, correspondingly, the small size of the

archaeobotanical assemblage, all plant remains are discussed by individual area rather than in terms of the site as a whole.

All identified seed, wood, and dung remains from Hannek were carbonized, and no desiccated plant remains were found within the assemblage (Melton 2016). Area B yielded the only seed in the entire assemblage and consisted of a fragment of the seed attachment area from the top portion of an unidentified fruit. Because only a small portion of the seed was preserved, the fruit was unable to be classified within a taxonomic family. One wood fragment was also present in Area B. No other plant remains were present in the two soil samples from this area of the site, but both samples were taken from two excavation units (Units 3 and 12) that contained large sections of oxidized soil, indicating the primary or secondary remains of one or more burning events.

The remaining soil sample, collected from a possible hearth in Area D, contained the greatest amount of wood by weight within the entire archaeobotanical assemblage from Hannek. A substantial portion of the wood recovered from this area consisted of small twig fragments, which were unidentifiable taxonomically. No other plant remains were present in the sample, but carbonized animal dung was present. The dung is likely to be that of a domesticated goat (Melton 2016).

5. Settlement and Funerary Architecture

No standing architectural remains were extant in any excavated portion of the Hannek settlement. All documented architectural features consisted of circular postholes, each approximately 10 cm in diameter, in addition to two to three seemingly deliberate arrangements of moderately sized, uncut fieldstones (discussed in greater detail below). No mudbrick, fired brick, or cut-stone masonry was present at the site, either intact or

fragmentary. No organic construction materials were extant, though these materials would not be expected to survive in the shallow stratigraphy and highly erosive context of a Kerma period settlement. However, the presence of postholes is highly suggestive of the use of wood or other organic materials in building construction. This kind of architectural evidence has been documented at other Kerma period sites near the Fourth Cataract (Wolf and Nowotnick 2006). Additional identified features included at least two possible hearths, two fieldstones with possible anthropogenic modifications, and three areas containing ash and/or carbonized soil consistent with possible burning events.

A total of 230 postholes were identified across all excavated areas of the Hannek settlement. All exhibited a roughly circular form, though in some cases erosion and/or ground disturbance has resulted in a somewhat irregular shape. At the time of excavation, most postholes measured approximately l0 cm in diameter and 5 to 7 cm in depth, though in some cases diameter and/or depth measurements were greater or smaller depending on their degree of preservation. In very few cases, some postholes appear to have been made deliberately smaller than the norm, measuring approximately 5 to 7 cm in diameter. Postholes were most numerous in Areas B and G, while they were less abundant in Areas C, E, and F. Postholes were present in moderate quantities in Area D, with very few documented in Unit 10 and a higher quantity in Unit 23. No postholes were identified in Area A. In areas of the site where postholes are incorporated amongst portions of the natural granite outcrop, such as in Areas C, D, and E, granite boulders appear to have been used as part of the structure (Figures 46-48). This pattern indicates the combination of natural and culturally modified aspects of settlement construction at Hannek.

In areas where postholes were present, they appear as a sort of architectural palimpsest, with multiple sets of these features appearing quite close to one another and offset in a way that suggests more than one construction episode. Such spatial arrangements can hinder the interpretation of structural layout; however, the plan drawings of these features make it possible to discern—at least to some extent—the size and shape of individual structures as well as their relative proximities to one another. In general, postholes at the Hannek settlement appear in circular arrangements or in arcs, indicating a preponderance of circular structures (Figure 49, for example). In a few cases, such as in Areas B, E, and G, postholes appear in roughly linear or rectilinear arrangements, suggesting the presence of rectilinear structures, small enclosures, or perhaps windscreens or small palisades in some cases (Figures 50 and 51, see Figure 49; Hafsaas-Tsakos 2009a; Trigger 1976). Circular structures throughout the various areas of the settlement in which they are discernible from site plans range in size from approximately 3 to 6 m in diameter. Rectilinear arrangements measure approximately 4x5 m, while linear arrangements measure approximately 4 m in length. It is, of course, impossible to estimate the height of these structures, regardless of their shape, given the complete absence of standing architecture. Individual structures of any shape, when they are apparent, are situated quite close together, separated by a distance of only about 1 to 2 m.

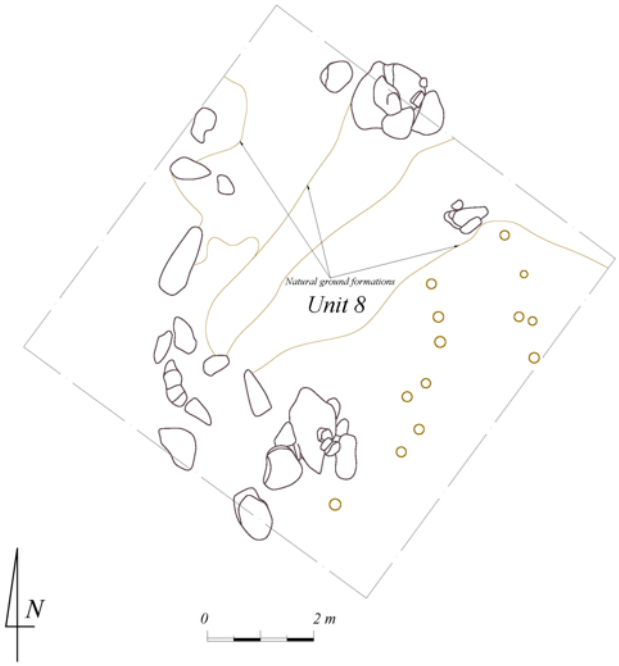


Figure 46. Plan drawing of Area C in the Hannek settlement. Note the interspersing of postholes among granite boulders.

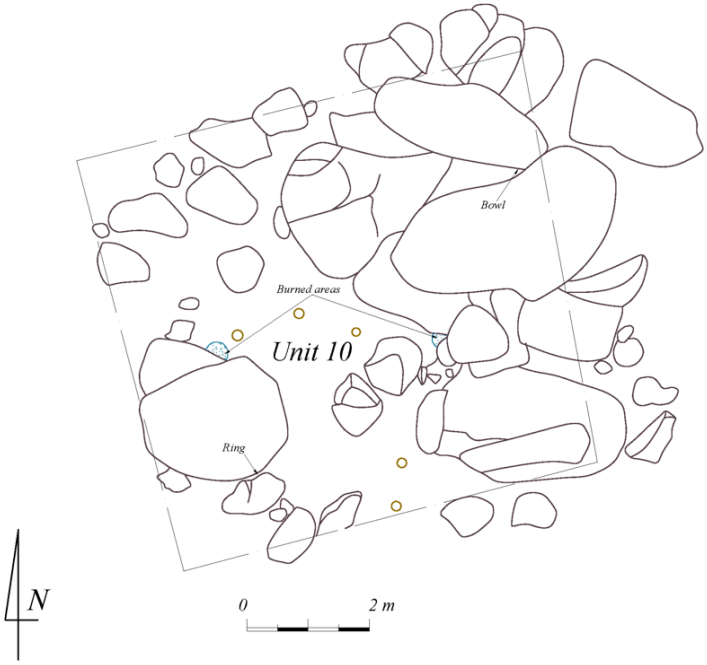


Figure 47. Plan drawing of Unit 10 in Area D of the Hannek settlement. Note the interspersing of postholes among granite boulders.

Figure 48. Plan drawing of Area E in the Hannek settlement. Note the interspersing of postholes among granite boulders, especially in Units 15 and 16.

Figure 49. Plan drawing of Area B in the Hannek settlement. Dashed lines indicate interpreted locations of structures.

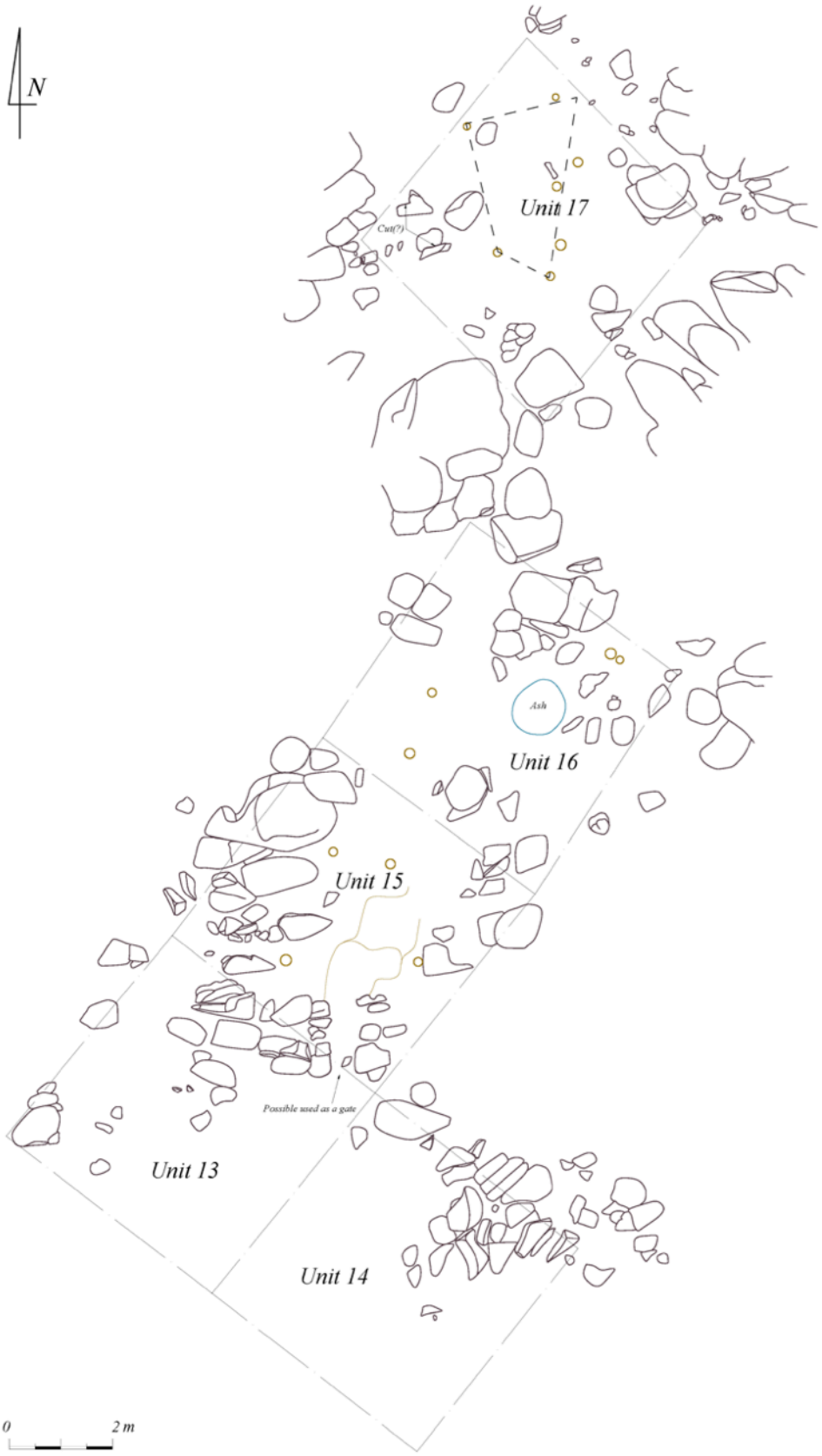


Figure 50. Area E at Hannek depicting possible rectilinear structure in Unit 17.

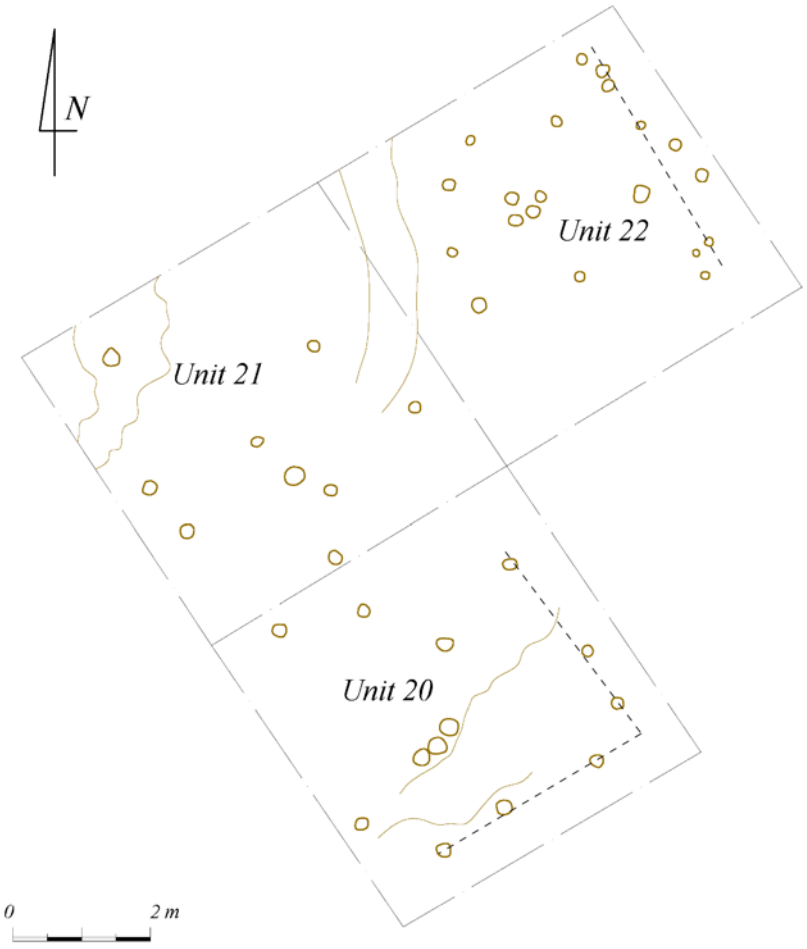


Figure 51. Area G at Hannek depicting possible linear and rectilinear structures in Units 20 and 22.

in Unit 10 in Area D (see Figure 47). These features were situated within sections of the granite outcrop that would have been reasonably protected from wind. The westernmost hearth feature in Unit 10 measured approximately 25x40 cm, while the easternmost hearth feature measured approximately 25x25 cm. An additional ashy feature was present in Unit 16 in Area E (see Figure 50), which may also have functioned as a hearth. Given its relatively large size (approximately 1x1 m), however, there is the possibility that this feature may indicate a larger burning event. Evidence of such burning events are also present in Units 3, 5, 11, and 12 in Area B, in the form of compacted, carbonized soil. These burned

sections are moderately large, measuring approximately 2.5 to 5 m in length by approximately 2 to 2.5 m in width.

As was the case at the Hannek settlement, no standing architecture was extant at the Abu Fatima cemetery. However, the surface of the excavated portions of the site contained scatterings of black rhyolite cobbles mixed with small white quartz pebbles. These stones were also present within the fill of virtually all excavated tomb pits at the site. It is therefore assumed that these stones are the remnants of disturbed Kerma-style tumulus superstructures. Although the superstructures were no longer present, burial pits were visible on the surface as shallow, rounded depressions. No evidence of rectilinear funerary

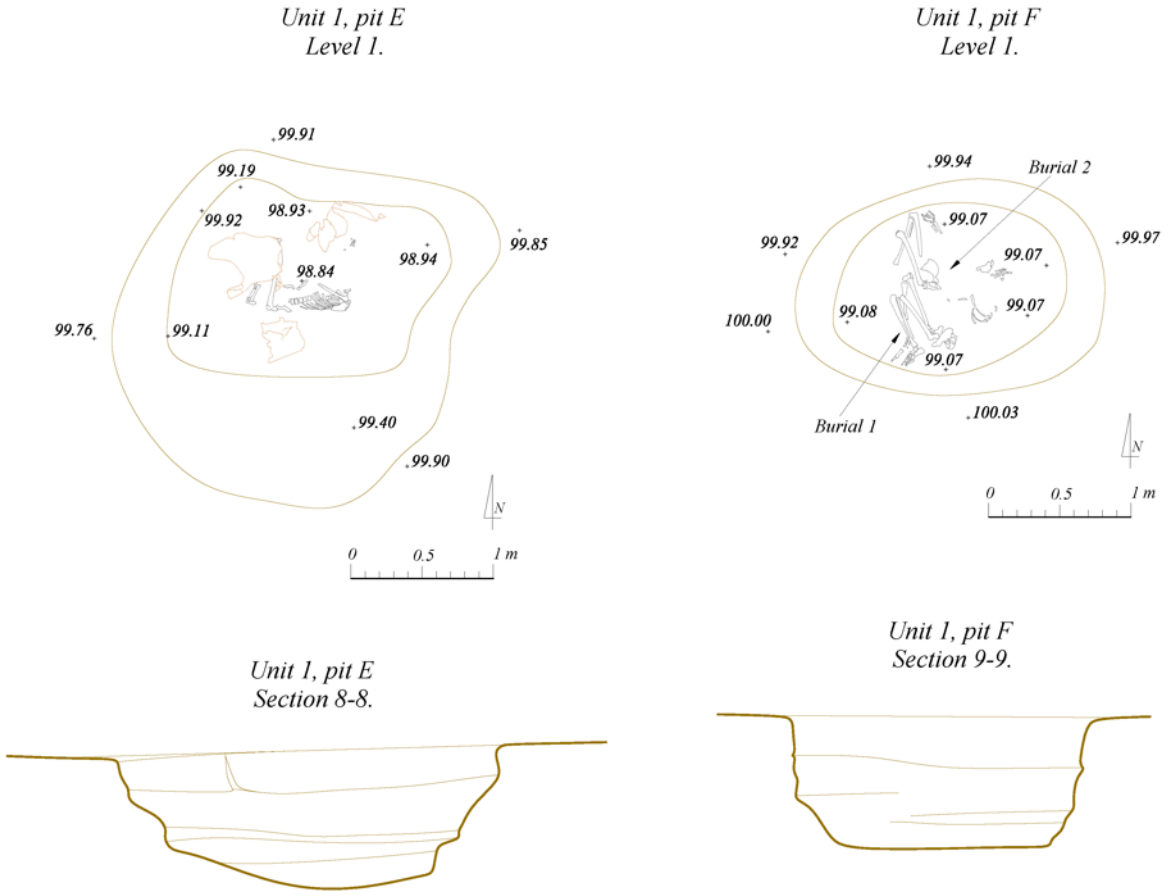


Figure 52. Grave structures in Unit 1 at Abu Fatima.

architecture was present aboveground. Likewise, no mudbrick, fired brick, or masonry blocks were present within the investigated portions of the cemetery.

Tomb structures were identified in all units excavated thus far at Abu Fatima, with the exception of Unit 3. Substructures of all but two of the 22 excavated tombs consisted of unlined circular or ovoid pits cut into the hard alluvial soil (Figures 52-55). This type of funerary architecture is typical of Kerma period cemeteries (Bonnet 1992; Bonnet and Valbelle 2006; Gratien 1986). Despite significant surface disturbance, grave substructures

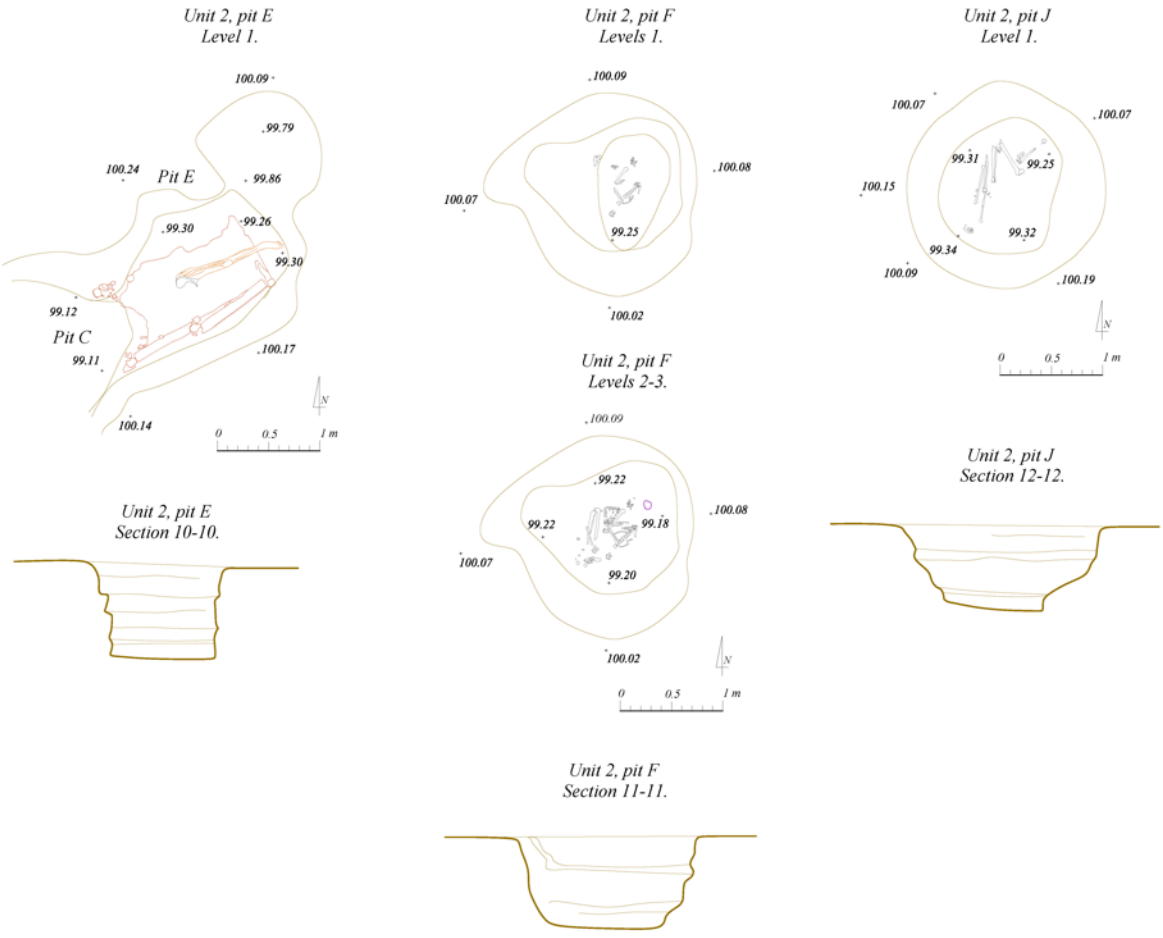


Figure 53. Grave structures in Unit 2 at Abu Fatima.

Figure 54. Grave structures in Unit 4 at Abu Fatima.

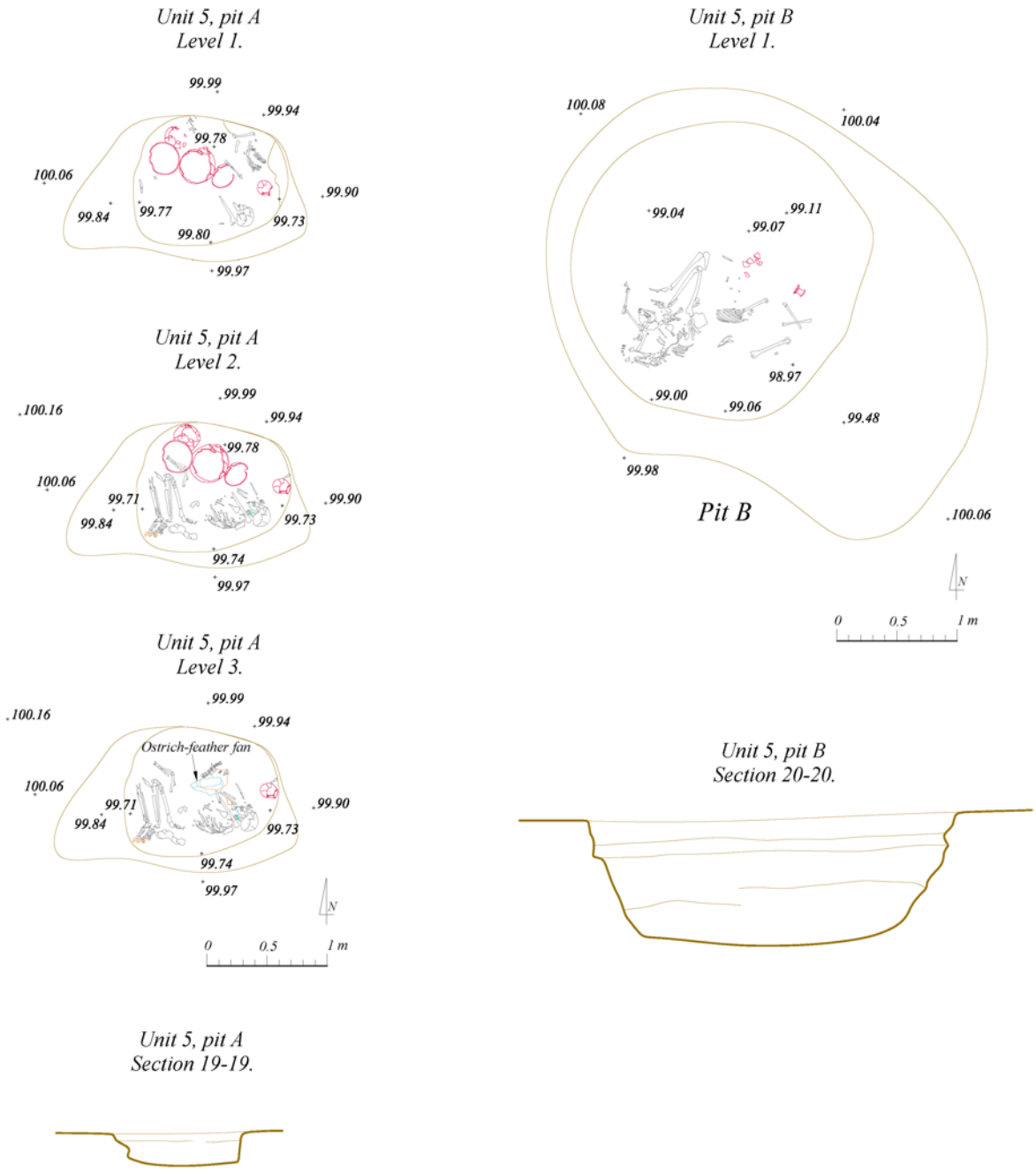


Figure 55. Grave structures in Unit 5 at Abu Fatima.

were largely intact aside from several that exhibited evidence of ancient looting activity. Burial pits were simple in design and contained no niches or additional chambers. Circular and ovoid burial pits ranged in size from approximately 1.5 to 2.5 m maximum diameter and measured approximately 0.5 to 1.2 m maximum depth. Two grave structures, Pits E and G in Units 2 and 4 respectively, possessed substructures that were rectilinear in plan (see Figures 53 and 54). Each of these two pits was cut into the natural alluvium and the burial chamber lined and/or blocked long, flat sandstone slabs. This style of tomb architecture is atypical of the Kerma period and reflects elements found in Meroitic and post-Meroitic funerary contexts (Obłuski 2008). The late date of these tombs is confirmed by radiocarbon dates from both contexts (see Chapter 4, this dissertation). Each of these rectilinear burial pits measured approximately 1x1.5 m in size, with a depth of approximately 1 m.

6. Burial Style

Given that the Hannek settlement did not contain funerary contexts, the site is not discussed in this section. Although a cemetery (site designation UCLA 97/97) was identified adjacent to the settlement, test excavations in the cemetery produced findings that indicate that this site likely does not contain Kerma period burials. Thus, the settlement and cemetery at Hannek largely did not appear to be temporally associated with one another, apart from the Napatan period.

Of the 23 individuals observed in the cemetery at Abu Fatima during the 2015 and 2016 excavation seasons, 21 exhibited a flexed burial position, with knees and elbows bent and hands placed near the face. These burials were distributed across four of the five excavated units within the cemetery, aside from Unit 3, in which no tomb structures were identified. The individuals within these tombs were laid on their right sides, with head oriented toward

the east and facing north. All but one tomb contained a single adult burial. The only exception was observed in Pit A in Unit 2, which held the remains of one adult and one subadult. In six cases, the deceased was wrapped in large pieces of hide, dressed in leather garments, or both.

All tumuli identified in Units 1 through 5 contained at least some grave goods, though the type and number of these items varied according to individual burials. Grave goods ranged from ceramic vessels and lithic tools, as well as leather goods, jewelry, and other classes of personal items (discussed in greater detail below). Several of the tombs within the cemetery included intact or butchered animal remains, as described previously in this chapter. All individuals exhibiting flexed burial position and associated with hides and/or leather garments were interred in circular or ovoid tumuli, and no tumulus contained burials placed in an extended position. In addition, no tumulus contained evidence for the use of coffins, burial beds, woven matting, or textiles.

Two of the 23 individuals buried at Abu Fatima were placed in an extended, supine position. Both were interred in the two rectilinear Meroitic period tombs located in Units 2 and 4 of the cemetery. The burial in Unit 2 Pit E was oriented on an east-west axis, with the head positioned to the east. In Unit 4 Pit G, however, the body was oriented on a north-south axis. Because this burial was highly disturbed, it is unclear whether the head was oriented north or south, though both orientations are documented at other sites (Obłuski 2008). Both individuals interred within the Meroitic tombs were placed on wooden burial beds, and at least one of the deceased had been wrapped in, covered with, or placed atop woven mats made from reeds or other organic material. Both of these late tombs contained

grave goods, which were restricted to ceramic vessels. These items were neither intact nor in situ upon discovery.

7. Jewelry and Personal Items

Jewelry and other personal accouterments were present at both the Hannek settlement and the Abu Fatima cemetery, though they were considerably less numerous and less diverse in terms of type within the settlement context. More specifically, the Hannek assemblage contained a fragment of a limestone spindle whorl, a fragment of a carved or ground stone pendant, an incised metal finger ring, and a sizeable collection of ostrich eggshell disc beads, ring beads, and bead fragments (Figures 56-57). Two additional beads were recovered that appear to be made of stone, or possibly of faience (see Figure 39). The spindle whorl fragment was identified just outside the excavated portions of Area G, while the pendant fragment was collected from Area F. The ring was found in Unit 10 in Area D. The ostrich eggshell beads were relatively ubiquitous across the settlement and were documented in Areas B, C, D, E, and F. No other jewelry or personal items were identified in any context within the Hannek settlement.

Figure 56. Fragment of spindle whorl from the Hannek settlement (front and back).

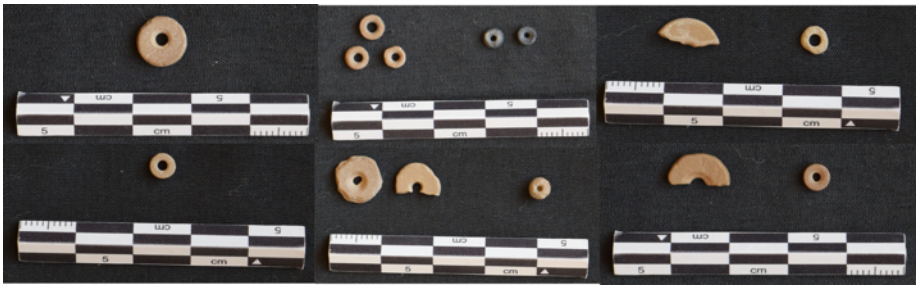


Figure 57. Examples of ostrich eggshell and stone or faience beads from Hannek.

Evidence of jewelry documented within the burials at Abu Fatima was in the form of beads made from various materials, and in some cases, string or sinew on which the beads were once strung. Exampled ranged from spherical, to disc and ring beads, and were made from faience, ivory, glazed quartz, ostrich eggshell, unidentified stone, and possibly silver. In no case was beaded jewelry discovered completely intact, but in two burials, fragments of string or animal sinew were found near the head of the individual, indicating the presence of a necklace. In the case of the necklace fragment found in Unit 1 Pit B, no beads were present on the string or sinew itself. The necklace fragment in Unit 5 Pit A, however, was strung with a series of faience beads. This burial also contained fragments from at least one additional necklace or bracelet strung with glazed quartz beads.

Other beads that were not directly associated with particular jewelry items were identified in Pits B, C, and D in Unit 2. No beads were documented in Unit 3. A number of beads were found in Unit 4 Pit E, but these examples appeared to have been at one time adhered to an item of clothing, discussed below. One additional item of 'jewelry' was of interest in Unit 4 Pit A. This item consisted of a leather collar associated with the articulated remains of a dog that accompanied the individual interred within the tumulus. All jewelry was documented in the Kerma period tumulus burials, with none found in either of the Meroitic tombs.

In addition to jewelry, various items of leather clothing were identified within several of the Abu Fatima burials. These items included both small accessory objects as well as larger garments. Because leather was used during the Kerma period both for clothing and for wrapping or covering the deceased, and due to the fragmentary nature of many of the leather remains from Abu Fatima, in many cases it was difficult to discern which fragments of leather originated from items of clothing and which were portions of burial wrappings. Therefore, the garments discussed in this section are those that could be identified either by their form—if they were reasonably intact—or by stitching, incising, beading, or other treatments that were not typically used in making burial coverings. Fragments of what appear to be corded leather belts appeared in a total of four Kerma period burials, all of which were located within the earlier portion of the cemetery (Units 1, 2, and 4). A fragment of rope made from plant fiber, possibly indicating the presence of a belt, was documented in the Meroitic burial in Unit 2. No such items were identified in either of the two Classic Kerma tumuli located in Unit 5.

Sandals made from leather and/or rawhide were also prevalent throughout the Early and Middle Kerma burials, appearing in five Kerma period burials. One sandal was also present in one of the two Meroitic period burials. No sandals were documented in either of the Classic Kerma burials. Other smaller accessory items found within Kerma period contexts included two sections of leather, one knotted and one decorated, documented near the head of the individual interred in Unit 4 Pit C. These fragments may have once been part of a cap or other head covering.

Larger leather garments were somewhat more difficult to identify, due to preservation, though a number of observations were made. At least one burial, in Unit 4 Pit D, contained

fragmentary but in situ remains of a leather skirt or kilt. In addition, five Kerma period contexts contained fragments of leather that contained stitching or perforations from stitching, incised decoration, or beaded decoration. These objects were associated with burials from Early, Middle, and Classic Kerma phases. One leather fragment exhibiting perforations created by stitching was associated with the cranial portion of the articulated remains of a sheep buried alongside the individual in Unit 5 Pit B. No leather garments or garment fragments were identified in either of the Meroitic contexts within the cemetery.

A total of seven Kerma period burials and one Meroitic period burial contained fragments of textile. All textile fragments were documented within Early Kerma, Middle Kerma, and Meroitic contexts, with none present in Classic Kerma contexts. The material or materials comprising these fragments are as yet unidentified, though the samples are large enough that compositional analysis is likely possible for at least some samples. Due to the small size and, in some cases, poor preservation of the fabric, it is unclear whether these examples are fragments of garments, fragments of burial wrappings, or sections of cloth included with the interred individuals as grave goods.

Alongside the range of objects discussed above, four of the 20 excavated Kerma period tumuli also contained several other types of objects. A large fan made of ostrich feathers was documented in Unit 1 Pit B, and another was found in Unit 2 Pit C. The latter tomb also contained a fragment of small alabaster jar used to store unguents or cosmetics, probably imported from Egypt (Minor 2012). The burial in Unit 4 Pit E included the core of an animal horn that appears to have been intentionally modified, though its purpose has yet to be determined. These three tumuli are located within the earlier part of the Abu Fatima cemetery and likely date to the Early or Middle Kerma phase. One of the two Classic

Kerma tumuli (Unit 5 Pit A) also contained additional personal items, consisting of two awls made from animal bone, which are often found in Kerma burials (Reisner 1923).

C. Discussion

By examining multiple lines of evidence for the intermingling of cultural traditions and influence at Hannek and Abu Fatima, it becomes possible to gain insight into how the members of these hinterland communities conceptualized and expressed their cultural identities during periods of social and political flux. The ceramic and lithic assemblages were initially examined to better understand the interplay between cultural identity and *habitus*—that is, how both quotidian and ritual practices shape and are shaped by cultural identity. In a similar vein, faunal and botanical assemblages from the two sites were then examined in order to inform our knowledge of foodways in the Kerma hinterlands. Finally, the settlement and cemetery architecture, burial style, and personal possessions were addressed to further refine how identities are manifested in life and in death.

1. Ceramics

Based on pottery styles and radiocarbon dates (discussed above), it seems that the settlement was inhabited during the later portion of the Kerma period, with evidence pointing to occupation from Middle Kerma through to the Third Intermediate and/or Napatan periods. This means that the community both pre-dates and post-dates the Egyptian New Kingdom occupation of Nubia, suggesting that ceramic style—and other aspects of the material record—should provide some indication of how consumption patterns and quotidian practices alike were or were not affected by the changing political climate during these periods. The results of qualitative and quantitative analyses of the ceramic assemblage

from the Hannek settlement indicate that the ceramic repertoire consisted almost entirely of Kerma-style wares throughout the site's occupation, with nearly 85% of all ceramics exhibiting shapes, surface treatments, and decorative elements that are typical of local ceramic traditions. It is as yet unknown whether the pottery was made locally or whether it was transported to Hannek from the Kerma capital or another hub, but it is evident that the population of Hannek preferred the use of Kerma wares to imported styles, even during and following the Egyptian conquest.

It is important to note that deflation due to environmental conditions at the site present some difficulties in determining the precise proportions of ceramic types across temporal contexts. In particular, the shallow stratigraphy at Hannek presents a limited ability to adequately define subtle intra-period patterns in cultural change or persistence. The fact remains, however, that if Nubian traditions had not persisted at Hannek concomitant with Egyptian encroachment into the region, then a considerably greater proportion of Egyptian pottery and other material culture would be expected overall.

This is not to imply, however, that imported ceramics or their contents were viewed as undesirable by Hannek's inhabitants in light of Egyptian aggression in the region. To the contrary, more than 4,000 individual sherds—approximately 5% of the overall ceramic assemblage—were of Egyptian or other foreign origin. Furthermore, it should be noted that of all imported wares, none were finewares and nearly all were ordinary wares to be used in daily activities. Only a small portion of the imported ceramics—less than 1% of all non-local types—consisted of Egyptian coarsewares or marl wares. This suggests that, on the whole, the vessels themselves were the products being imported. In addition, these vessels

were primarily those types that were used neither for cooking nor for special occasions, but rather for everyday food consumption.

It is also notable that the Third Intermediate/Napatan period burials located in the cemetery adjacent to Hannek settlement incorporated aspects of Egyptian mortuary ritual alongside Nubian elements. The individuals in these burials were oriented in the Egyptian style, supine with heads to the west, facing east. Interred with the deceased were a small selection of handmade Nubian ceramic vessels, along with Egyptian style scarab amulets and jewelry. Thus, while the settlement area at Hannek exhibits a strong adherence to Nubian lifeways throughout its history of use, the portions of the Hannek cemetery that have been examined belie at least some interest in Egyptian traditions following the New Kingdom occupation of Nubia.

Thus, there are two issues that become clear as a result of this evidence: 1) that populations of at least some communities in the Kerma hinterlands had direct or indirect access to foreign goods, and 2) is that at least some portion of the population at Hannek chose to consume and incorporate into the daily repertoire a selected range non-local ceramics. These patterns of consumption may indicate that some individuals or households within the community were gradually adapting to Egyptian practices before the settlement fell into disuse, as has been demonstrated at the Kerma capital as well as at Sai Island (see Chapter 5). Alternatively, the data may indicate that rather than aim for an Egyptian way of life, these individuals or households may simply have favored a particular set of foreign products that became part of their *habitus* via a long history of use and reuse.

In addition, it is possible to discern differences in the distribution of local and non-local wares within individual areas of the settlement. As described above, the relative proportions

of Nubian and imported ceramics in Areas B, C, D, E, F, and G align in general with those observed in the sitewide assemblage, though it should be noted that Area B contained somewhat higher and Areas C and G somewhat lower percentages of imported wares. Conversely, the proportions of local and non-local ceramics in Areas A and D were markedly different from those identified in the overall site assemblage, with both areas containing a substantially lower proportion of local wares and a higher proportion of imports than was present for the site as a whole.

As was noted previously, pottery styles and radiocarbon dates from Abu Fatima indicate that the cemetery was in use throughout the Kerma period. In addition, the results of the ceramic analysis for the site assemblage as a whole exhibited nearly identical proportions of local and non-local ceramics as were present within the Hannek assemblage, indicating a strong community-wide preference for local Nubian wares in mortuary as well as habitation contexts. As was seen at Hannek, nearly 85% of the ceramics documented at Abu Fatima were of the local Kerma style, while slightly less than 5% of ceramics consisted of Egyptian imports. About half of the imported pottery at this site consists of Egyptian marl wares, while the other half are primarily ordinary wares. This suggests a slightly different pattern of consumption at Abu Fatima than is seen at Hannek—namely, that while some imported vessels (i.e., Egyptian ordinary wares) were imported to Abu Fatima as objects in their own right, others (i.e., Egyptian marl wares) were imported for the products they contained. Interestingly, no non-Egyptian imported wares were observed in the Abu Fatima assemblage.

Moreover, the general preference for local over non-local ceramic vessels and their contents appears to be consistent throughout the cemetery's long history of use, with similar

relative frequencies of local and imported ceramics in both the Early and Middle Kerma burials (Units 1-4) as well as in Classic Kerma burials (Unit 5) at the site. It is notable, however, that the combined percentage of Egyptian ceramics in the two Classic Kerma tumuli was somewhat higher, at nearly 9%, than the proportion of imports observed in the overall cemetery assemblage. Such patterns are intriguing in light of the fact that the Abu Fatima cemetery was in use throughout the entirety of the Kerma period, whereas the Hannek settlement was occupied only during the Middle and Classic Kerma phases, continuing through the period of Egypt's occupation of Nubia. Although it appears that the desirability of imported ceramics and/or products for use as grave goods at Abu Fatima increased to some extent as Egypt strengthened its hold over the Kerma domain, it is also the case that the members of this community strongly favored the use of local Nubian goods as part of their set of mortuary practices.

The ceramic data from Hannek and Abu Fatima, then, present considerable insight into consumption patterns, as well as into quotidian and ritual practices. As a result, it becomes possible to examine the impacts of such processes on cultural identities within these two hinterland communities. In particular, the data suggest that in general, those residing in the Kerma hinterland largely adhered to their Kerman cultural traditions, even during periods of Egyptian control in Nubia. Despite dramatic changes in the social and political atmosphere of the region as a whole, members of these rural communities largely maintained local lifeways and consumed local goods. It is evident, however, that at least a small portion of the range of ceramic types used as part of the quotidian repertoire at Hannek and as part of mortuary ritual at Abu Fatima are of non-local manufacture. Whether these rural dwellers desired imported ceramics themselves, or the goods contained within them, it is clear that

some individuals and/or families chose to enmesh a particular set of foreign objects, and possibly even traditions, together with indigenous cultural practices. In other words, it can be asserted that rural Kermans neither completely rejected nor completely assimilated to Egyptian culture, even as Egypt gained dominance over the Kerma kingdom.

2. Lithics

If the ceramic assemblage at Hannek demonstrates a strong preference for locally manufactured objects, then the lithic assemblage provides even further evidence of this trend. The 15 lithic tool types documented at the settlement coincide quite closely with the range of tools observed elsewhere in Upper Nubia (Garcea 2003; Honegger et al. 2013; Kobusiewicz 1998). In addition, the tool types present in the Hannek site assemblage align closely with the various day-to-day activities would be expected to take place within a typical Kerma period settlement. Specifically, such activities would have included tool manufacture itself. Expedient tools tend to be the norm at sedentary sites and were usually made within the communities where they were used rather than acquired from nearby or foreign locales due to the ready availability of raw materials (Andrefsky 1991). That the stone tools documented at Hannek were produced locally is suggested by the fact that approximately 75% of the overall assemblage consists of lithic cores and debitage. These objects would be absent if tools were being made elsewhere.

The next largest category of tools at Hannek, consisting of two types of scraper, comprised about 16% of the assemblage. These tools were probably versatile and could have been used for a variety of tasks, but it is also possible that their primary function consisted of processing animal skins used in the manufacture of leather goods and rawhide, a craft for which Nubia was well known during this time (Minor 2012; Veldmeijer and

Laidler 2008). Perforators and burins, comprising approximately 4% of the lithic assemblage may also have been used in leatherworking. The remaining tool types, including projectile points and bifacial preforms, choppers, blades, notched tools, and a variety of microliths attest to other activities typical of habitation sites, such as hunting and warfare, architectural construction, food processing, and the production of various crafts such as jewelry, weapons, and other items.

When examined in terms of individual area, the lithic data from Hannek indicate that the site does not appear to have been characterized by highly specialized activity or craft production areas during its Kerma period occupation. Rather, the spatial distribution of lithic tool categories across Areas A through G suggests that, overall, these seven habitation areas contained generally comparable proportions of each of the 15 tool types. There are, however, a few notable exceptions. Area B, for example, contained a considerably higher proportion of blades and bladelets than were present in any other area of the settlement, suggesting that perhaps a greater degree of butchering or other activity requiring the use of a knife was conducted here than in other locations. In addition, a noticeably higher percentage of projectile points and bifacial preforms were present in Areas B, C, and D, which presents two possible but not mutually exclusive implications: 1) that these areas were used more often for the production of points and other bifaces, or 2) that the primary occupants of these areas engaged in hunting and/or warfare more often than those living in other parts of the site. Finally, notched tools appeared with greater frequency in Areas B, C, D, and G, which indicates that these areas may have been used more often for any range of activities that require small-scale sawing using serrated cutting implements. In general, then, it appears that Area B was home to a greater variety of quotidian activities than were

other areas of the settlement, but in general, there is no indication that those living at Hannek engaged in a high degree of craft specialization.

Despite the small size of the Abu Fatima lithic assemblage, it is possible to discern a few patterns in these data as well. The overall site assemblage indicates that a relatively wide range of lithic tool types were present in burials within the cemetery. As was observed at Hannek, the entirety of the lithic assemblage collected at Abu Fatima fell within a range of types that is typically seen in other Kerma period contexts (Garcea 2003; Honegger et al. 2013; Kobusiewicz 1998). However, the range of types within the cemetery is somewhat smaller than that observed at the Hannek settlement, with only nine categories represented at Abu Fatima as opposed to the 15 that were documented at Hannek.

As noted above, no lithics were documented in Units 1 and 3. Units 2 and 4, in the Early and Middle Kerma portion of the cemetery, contained a range of tool types that included scrapers, microliths, burins, and cores. These types are primarily associated with leatherworking and tool production, suggesting that these crafts may have been important to the deceased or to their families. In the Classic Kerma portion of the cemetery, tool types were of a slightly wider range of categories including scrapers, perforators, borers, burins, and notched tools. This pattern may suggest a greater degree of craft specialization within the Abu Fatima community during the later part of the Kerma period, or it could indicate that craft production had become more strongly associated with individual and/or community identity by the end of Kerma rule.

The patterns in the lithic assemblages described here are valuable in light of their ability to provide a glimpse into cultural identity in the Kerma hinterlands. While the ceramic data discussed above allows for the examination of consumption patterns, the investigation of

stone tool manufacture, usage, and distribution at Hannek and Abu Fatima present an opportunity to better understand *habitus*, mortuary ritual, and how these phenomena shape identities. It is particularly telling that the lithic assemblages from both sites, which combined span the entirety of the Kerma period, exhibit ranges of tool types that closely mirror the standard Kerma period toolkit, even among the latest contexts. In addition, a large proportion of the tools present are associated with craft activities that are distinctly Kerman, particularly those associated with leatherworking. Thus, the lithic evidence from both Hannek and Abu Fatima substantiates the notion that those residing in the Kerma hinterlands largely adhered to a Kerma cultural identity even as the Egyptian colonial program took hold in the region.

3. Archaeofaunal Remains

The faunal data presented in the previous chapter can provide insight into both quotidian and ritual practices by providing insight into the roles animals played in various cultural traditions. The faunal remains collected at the Hannek settlement inform our understanding of general patterns of keeping, hunting, and consuming animals and animal products—practices which, in part, help to construct and maintain one's *habitus* (Goody 1982; Mintz and Du Bois 2002; Sutton 2001). Overall, the data indicate that the Kerma period population of Hannek relied relatively equally on mammalian and non-mammalian species. There was, however, a particularly heavy reliance on domesticated livestock, with cow, sheep, and goat comprising the largest portion of identifiable species combined, aside from ostrich eggshell fragments. Aside from these primary resources, the data demonstrate that the Hannek community also exploited deep river resources such as Nile perch, freshwater mollusk, and African softshell turtle. The population also hunted—possibly

opportunistically—a small selection of wild bovids such as duiker and dik-dik. In general, then, the faunal assemblage suggests that Hannek's residents relied largely on a pastoral food economy that was supplemented by a narrow range of wild species.

That bovids, caprines, and ostrich eggs made up the bulk of the Hannek faunal assemblage is unsurprising in light of what is currently known about foodways in other parts of the Kerma domain (Chaix 2017; Chaix and Grant 1992; Iacumin et al. 1998). In these previously investigated locations, it has been demonstrated that cows were especially important within the Kerma culture, not only in terms of subsistence but also for their ritual symbolism. In addition, the preference for keeping and herding domesticated livestock over hunting for wild game is typical of state-level societies in this region (Buzon 2006b; Edwards 2007). Although it is known that ostrich eggshell was widely used during this time for the production of beads and other decorative or luxury objects (Ikram 2012), it could also be argued that the contents of the eggs must have been eaten rather than simply discarded. It is also important to note that all identifiable fauna at the site were available locally during the Kerma period. It is therefore unlikely that the Hannek community engaged in the import of exotic animals or animal-based food products from Egypt, the Mediterranean, or elsewhere but instead focused their culinary traditions on indigenous resources.

Unlike at Kerma, bucrania were distinctly absent from the Abu Fatima cemetery, indicating that perhaps these objects were reserved for royal or elite members of society. However, the faunal remains from Abu Fatima underscore the importance of caprines among Kerma period communities, both urban and rural. The significance given to these animals is evidenced by the proliferation of sheep and goat remains throughout the

cemetery. This pattern aligns with that observed at Hannek, suggesting that these hinterland populations relied heavily on small domesticated livestock both for basic subsistence and in ritual practice. As noted previously in this chapter, it seems that the community who established the Abu Fatima cemetery afforded differential treatment to sheep versus goats, preferring to inter the former intact, while the latter was first skinned and cut into butchery units. It is as yet unclear what these patterns may mean in terms of how the community conceptualized these animals and their place within mortuary ritual, but further examination of the cemetery would undoubtedly assist in shedding light on the matter.

Although only a single canine was present in the burials excavated thus far at Abu Fatima, its careful placement in proximity to the deceased individual, its advanced age, and its possession of a collar all imply that—at least on an individual level—dogs were viewed as companions. Alternatively, it could be argued that this particular animal, being of the greyhound type used for hunting and herding, may have been meant to serve a similar purpose in the afterlife of its owner. The inclusion of practical implements and laborers for the afterlife (in the form of *ushabtis*) is a well-known practice in Egyptian funerary tradition (Hobson 1987), but at present, not enough is known about how Kerma period Nubians conceived of an afterlife, or whether the belief in such a concept was held by these groups at all. However, it is not unreasonable to consider the possibility that the inclusion of dogs and other animals in Kerma burials may have held a practical component.

Finally, the presence of ostrich eggshell fragments in a cemetery setting must be addressed. While in a settlement context these fragments may represent food refuse or the raw material for the disc and ring beads that are so typical of Kerma assemblages, in a mortuary context these specimens may indicate another use for the once-intact eggshells.

Specifically, it has been posited elsewhere that the emptied shells of ostrich eggs, due to their surprising strength, were used elsewhere in the Nile Valley during the Nubian Neolithic as containers for water or other liquids (Jórdeczka et al. 2013). It is therefore possible that this practice continued into the Upper Nubian Bronze Age. If so, then it is not unreasonable to suppose that such containers might have been included as grave goods in Kerma period burials, especially given the abundance of ostrich eggshell throughout that Kerma domain.

The faunal data from the Hannek settlement and the Abu Fatima cemetery present considerable insight into cultural identity as it relates to foodways and burial practices. First, the data indicate that in both habitation and funerary contexts, those who lived at Hannek and who buried their deceased at the Abu Fatima cemetery chose to emphasize the use of local fauna, whether wild or domesticated. While it is possible that non-local specimens were present but not observed at either site, there is no evidence indicating that any live or previously processed animals were imported from outside the Nubian heartland. Moreover, the local species that were given primary importance as part of both everyday and ritual practice are those that have become well known among researchers as quintessential to Kerma lifeways based on data from the Kerma capital.

In particular, small domesticated livestock such as sheep and goat were of primary importance in both rural and urban locales, as well as in both habitation contexts and funerary settings. Cow remains are also found in all of these contexts, though they occur somewhat less frequently at the hinterland sites of Hannek and Abu Fatima. It is notable that domesticated dogs have been documented in both Nubian and Egyptian burial contexts, though they are not uncommon at Kerma itself. While it is clear that canines seem to have

held a shared importance in both cultural contexts, it is currently not known whether this tradition had parallel origins in both regions or whether it was adopted from one to another. In any case, it can be argued that, along with the other lines of evidence discussed in this chapter, the faunal remains from Hannek and Abu Fatima predominantly portray an adherence to Kerma cultural traditions in the early days of Kerma rule as well as at the onset of Egyptian colonialism in Nubia.

4. Archaeobotanical Remains

Due to the small number of botanical specimens in the soil samples collected from the Hannek settlement, these results contribute only limited insight into foodways or other use of plant matter at the site. As noted above, one portion of a fruit and several fragments of wood and twigs were present but were unidentifiable to any particular taxonomic categories. In addition, one specimen of carbonized dung, likely that of a domesticated goat, was present in one sample taken from within a hearth feature. It is possible that the wood and twig fragments represent the remnants of architectural construction materials, as wattle-and-daub architecture was highly common during the Kerma period. Without further evidence, however, this possible interpretation remains conjectural. However, the presence of domesticated goat dung corroborates, to some extent, the findings of the faunal analysis, which documented the prevalence of caprine consumption at Hannek. The seed attachment portion of the fruit, because it could not be identified, provides little insight other than to serve as evidence that at least one fruit species was consumed by those residing at Hannek.

Given that soil samples were not collected from the Abu Fatima cemetery, no archaeobotanical analysis was carried out for this site. However, as excavations are ongoing

at Abu Fatima, it is possible that botanical remains will be available for analysis in the future.

In sum, archaeobotanical remains from Hannek and Abu Fatima were scant. As a result, employing this class of evidence to infer conclusions about the foodways, burial rituals, and cultural identities of those who established these hinterland communities should be executed with great caution. What can be said is that the presence of wood and twig fragments, combined with more certain architectural evidence (discussed in the next section), suggests the use of organic materials in the construction of buildings, which is typical of Kerma period settlements. In addition, the presence of carbonized caprine dung may help to substantiate the importance of sheep and goats in the local economy, which is also typical of Kerma communities. If these conclusions are accurate, then the archaeobotanical remains from Hannek could serve to underscore the notion that hinterland dwellers adhered to their Kerman identities despite the changing sociopolitical milieu of the Classic/Late Kerma period and the subsequent New Kingdom occupation.

5. Architecture

Despite the lack of standing architecture at the Hannek settlement, it is possible to discern from the ubiquity and arrangement of postholes three primary interpretations. First, the architectural evidence suggests that the site's occupants greatly preferred the construction of circular structures. Although a small number of rectilinear or linear features were recognizable in the plan drawings from Areas A through G, these types of structures are not unusual in Kerma contexts (Gratien 1997; Gratien et al. 2002; Wolf and Nowotnick 2006). Larger examples of these features may have functioned as houses or public structures, or smaller versions may have served as animal pens or shelters. Second, the

architectural evidence suggests that houses and other structures tended to be of small to moderate size, ranging between 3 and 6 m in diameter. No evidence of overly large or grandiose architecture was observable within the settlement. Third, the large number of postholes documented across the entirety of the site, along with a distinct absence of mudbrick, fired brick, and stone masonry, reveal an adherence to construction methods and materials that typify the architecture of the earlier part of the Kerma period. In contrast, no influence of Egyptian architectural styles was documented in any area of the settlement. If present, structures built in the Egyptian style would exhibit rectilinear plans with multiple adjoining rooms and would be built using mudbrick, brick, or cut-stone materials.

In a similar fashion, funerary architecture identified within the cemetery at Abu Fatima indicates a style that is strongly Kerman in nature, with no observable traits of Egyptian burial tradition. Nearly all tombs, with the exception of the two rectilinear Meroitic grave structures documented in Units 2 and 4, exhibited a circular or ovoid plan, with unlined shaft walls and an absence of additional burial chambers or tomb chapels. No inscriptions or iconography were incorporated into the grave structures, nor was any mudbrick, fired brick, or stone masonry observed. In addition, the tumuli and the ground surface surrounding them contained a large number of black and white capping stones that had undoubtedly been removed from their original context, either in antiquity or in the modern era. All of these features are highly characteristic of Kerma period tumuli, and they are visible among the earliest as well as the latest tombs excavated at the site during the 2015 and 2016 field seasons. If Egyptian influence were present in the funerary architecture at Abu Fatima, we would have expected to find evidence of rectilinear superstructures and substructures, chapels, multiple burial chambers, and mudbrick, brick, or cut-stone construction materials.

Thus, the architectural evidence from both Hannek and Abu Fatima point to an adherence among members of both communities to Kerma stylistic elements and construction methods. This alignment with Kerma practices is evident not only in earlier contexts, such as the Early and Middle Kerma period tombs in the northern section of the Abu Fatima cemetery, but also in later contexts, such as the Classic Kerma tombs at Abu Fatima and the entirety of the Hannek settlement, which dates to Middle and Classic Kerma. Moreover, these trends are apparent in both the quotidian contexts of everyday life in a settlement and in the ritual contexts surrounding funerary practices. When taken together with other lines of evidences from these sites, such patterns suggest that Kerma traditions permeated a great many aspects of life in the Kerman hinterlands. Through this lens, it becomes possible to gain insight into the ways in which these traditions contributed to the formation and perpetuation of cultural identity throughout the long history of interactions between the Kerman and Egyptian states.

6. Burial Style

In cases where the human remains were sufficiently articulated and/or undisturbed that burial position could be determined, all individuals interred within the portions of the cemetery excavated thus far were placed according to the Kerma archetype with the exception of the two Meroitic burials located in Units 2 and 4. Specifically, the deceased were placed in a flexed position on their right sides with heads in an easterly direction and facing north. As noted above, approximately one quarter of the individuals were either clothed in leather garments, draped in leather or animal hide, or both, which is characteristic of Kerma period burials. The wide range of grave goods included in the excavated burials

also typify Kerma mortuary ritual, such as ceramic vessels, food offerings, lithic and bone implements, ostrich feather fans, jewelry, decorated footwear, and sacrificial animals.

As was documented with the tomb architecture at Abu Fatima, no evidence of Egyptian influence was present in the treatment of the body. In large part, Egyptian objects were absent from the collection of grave goods as well, though the presence of a small selection of Egyptian ceramic vessels—some, perhaps, containing other products desirable to a Nubian consumer—has been discussed previously in this chapter. These imported objects were present across Early, Middle, and Classic Kerma burial contexts. What is particularly remarkable, however, is that the two Classic Kerma tumuli contained a proportion of imported ceramics (2.10%) that is nearly equal to the proportion of imported wares documented in all of the 19 Early and Middle Kerma tumuli combined (2.36%). Unlike the other aspects of burial style that are presented here, the ceramic grave goods indicate that at least some elements of Egyptian culture—even if only a small set of imported products—may have been culturally significant in the burial practices of this community. If this was in fact the case, then it would seem that the significance applied to such objects intensified to some degree near the end of the Kerma period.

The various aspects surrounding burial style that were recorded in the Abu Fatima cemetery speak to the ways in which cultural identity was not only conceptualized, but also expressed, within this community. It is evident from the characteristics present among the Kerma period burials from Abu Fatima that assigning a Kerman identity to the deceased was paramount to this rural population, both in the earliest years of Kerma rule as well as at the onset of the Egyptian colonial program. This is indicated by the fact that the tomb style, placement and treatment of the body, and the types of grave goods included with each burial

align overwhelmingly with the practices seen at other Kerma sites, including the capital itself.

But the presence of items imported from Egypt is also meaningful in light of the approximately 1,500 years of exchange and diverse interactions between the Kerman and Egyptian states that characterized this period. The archaeological evidence shows that, at least in the 23 burials addressed in this dissertation, the inclusion of imported objects was restricted almost entirely to Egyptian vessels of ordinary type and those manufactured for the storage and transport of other products such as beer, wine, oils, or other goods. It is possible that the textile fragments noted in a number of the tumuli were also imported from Egypt, though textiles were also produced in Nubia during this time (Minor 2012; Reisner 1923). Thus, further analysis is necessary in order to determine their origin. The types of imported ceramics differ somewhat from the patterns observed at the Hannek settlement, where greater emphasis was placed on the import of Egyptian ordinary ware vessels than on any other foreign product. At Abu Fatima, the proportion of Egyptian ordinary and marl vessels is relatively equal, suggesting that it was not only Egyptian pottery but also a selection of other foreign products of as yet unknown type that had gained importance as part of the mortuary practices of this community. Furthermore, because burial ritual is very often centered around display, conspicuous consumption, and performance of various social identities (Baines 2006; Parker Pearson 1982), these patterns in burial style could suggest either that some degree of elevated social status was obtained through access and consumption of imported goods, or that such imports had become culturally entangled within mortuary ritual and, potentially, everyday life in the Kerma hinterlands.

7. Jewelry and Personal Items

Although the evidence for jewelry and other items of personal adornment, as well as practical implements, were observed less frequently at the Hannek settlement, as noted previously in this chapter. This fact presents a greater level of difficulty in interpreting these objects as markers of cultural identity within the context of a rural Kerma habitation. It is, however, possible to draw some cautious conclusions about these items may have played a role in the production and reproduction of cultural identity at Hannek. For instance, there are a number of examples of stone pendants from other Nubian contexts that are comparable to the pendant fragment that was documented in Area F (Then-Obłuska 2015), and the spindle whorl fragment found near Area G is also not unusual within a Nubian settlement (Wolf and Nowotnick 2006). In addition, the numerous ostrich eggshell disc and ring beads are highly characteristic of Kerma material culture (Emberling 2009; Minor 2012). The metal finger ring, incised with a geometric zigzag motif, is more difficult to place within a cultural context, though metallurgy was certainly practiced during the Kerma period in the production of jewelry, weapons, and other items.

No jewelry or other personal items were documented at the Hannek settlement that exhibited characteristics of Egyptian or other foreign origin or influence. If such objects had been present, then we might expect to see items such as stone bangle bracelets; beads made from stone, ceramic, or metal/ stone vessels; or sealing stones bearing inscriptions. Other objects indicating an Egyptian presence or influence at Hannek might include scarabs, amulets, or figurines, though these artifact types are more often found in funerary contexts.

A considerably greater number of personal items, including jewelry, clothing and related accessories, and other implements, were documented within the burials excavated at Abu

Fatima. In all but a few cases, the objects present appear to exhibit characteristics that place them firmly within the Kerma cultural milieu. The items most evocative of the typical set of Kerma period material culture are the leather garments, both decorated and undecorated, that were found throughout the cemetery; the ostrich feather fans found in two Early to Middle Kerma burials; and the ivory and ostrich eggshell beads found in various contexts. In addition, sandals made from leather and/or rawhide, leather caps worn atop the head, and braided or twisted leather belts have precedents elsewhere within the Kerma domain (Ikram 2012; Minor 2012; Reisner 1923). Implements made from animal bone and horn, such as those documented in Units 4 and 5, are also often characteristic of a Kerma assemblage (Minor 2012). These objects were found consistently throughout the Early, Middle, and Classic Kerma contexts at Abu Fatima, indicating that grave goods embodying a strong association with the Kerma style were viewed as an integral part of mortuary traditions in this community, even as Egyptian culture was taking hold only a few kilometers away at the Kerma capital.

Despite the overwhelming frequency of Kerma-style objects, it appears that a range of jewelry and other personal items from a number of burials at Abu Fatima may have their origins in Egypt. The fragment from a small alabaster jar that was found in an Early or Middle Kerma burial in Unit 2 is particularly likely to be an Egyptian import, as such jars were commonly manufactured in Egypt for the storage of cosmetics, unguents, or perfumed oils. These jars are also common in later funerary contexts in Nubia, as has been documented at Tombos and at Kerma itself (Hafsaas-Tsakos 2009b; Minor 2012). Additionally, a small number of beads were collected at Abu Fatima that are made from materials not typically used by Nubian artisans—namely those made from silver and stone.

These raw materials were, however, often used in the production of such objects in Egypt (Gale and Stos-Gale 1981; Lucas and Harris 2012; Smith 2003a). It is also possible that the textiles, of which only small fragments survive, may be of Egyptian manufacture. As discussed above, linens are frequently found in Egyptian burials, either in the form of wrappings for the deceased or as grave goods in their own right. Because the textile fragments found at Abu Fatima did not appear to be associated directly with the human remains, it is likely that these items were part of the grave good assemblage. They may be Egyptian or Nubian in origin. In order to determine the cultural and geographic origin of these fabrics, however, a full analysis of the production techniques and raw materials is necessary.

Much like the Kerma-style objects found within the tumuli at Abu Fatima, these Egyptian-style artifacts were observed in burials that span the entirety of the site's period of use, with the exception of the two Meroitic tombs. While the vast majority of grave goods are of local style and origin, the inclusion of items imported from Egypt in a Nubian burial presents significant implications for the conceptualization of cultural identity within this society. In particular, the specific types of non-local objects may be of especial importance in understanding how such goods became culturally entangled with indigenous objects and traditions. Based on the patterns observed in the Abu Fatima cemetery, it would seem that Kerma cultural identity of the deceased in this community was largely expressed not only through practices such as the treatment of the body itself, as was discussed in the previous section, but also materially through clothing and the inclusion of bone, horn, and stone tools and other implements such as ostrich feather fans.

In contrast, other artifact types seem to have had a somewhat more complex association with identity. Jewelry placed with the deceased was of mixed cultural origin, as was the range of ceramic vessels included in burials, though both object classes were predominantly Kerman in style. Items that may be distinctly Egyptian in origin include a set of ceramic marl ware vessels and one small stone vessel that may have contained luxury goods such as cosmetics, oils, beer, wine, or other Egyptian products that were viewed as affording particular social status or other cultural capital to the deceased.

D. Summary

Employing multiple lines of archaeological evidence, it becomes possible to gain insight into the ways in which cultural identities in ancient communities were conceptualized and expressed through material means. The processes surrounding identity formation, negotiation, and maintenance can be examined both through the analysis of everyday life as it was experienced in a habitation setting, as well as through the analysis of mortuary practices within which individual and group identities are deeply rooted. The negotiation of identities is particularly acute in contexts of intercultural interaction and colonial encounters, processes which characterized life in the Nubian Bronze Age and beyond. Thus, if an understanding of how rural communities engaged with the shifting social and political dynamic of this period is to be achieved, then it is crucial to examine the material remains associated with life and death in those communities through the lens of anthropological theory.

Overall, the analysis of ceramics, lithics, faunal and botanical remains, architecture, burial style, and personal accouterments from both Hannek and Abu Fatima indicate a strong adherence to Kerma cultural practices, not only in the earlier years of Kerma rule,

when the Nubian kingdom dominated the geopolitical landscape, but also in later years leading up to, and at the height of, Egyptian colonization of Nubia. This trend stands in distinct contrast to patterns visible in the archaeological assemblages from the Kerma capital and Sai Island, where local material culture was ultimately replaced by Egyptian elements, coincidental with the New Kingdom occupation.

In a few notable cases, however, there is evidence that at least some individuals in the rural communities of Hannek and Abu Fatima consumed a specific selection of imported objects and incorporated these goods into the local repertoire, both as part of everyday life as well as ritual tradition surrounding death and burial. Such items consisted of a set of Egyptian domestic ceramic vessels, Egyptian marl vessels that presumably contained desirable non-local products, and imported beads or beaded items that were placed in burials as grave goods. In addition, it is possible that those who established the cemetery at Abu Fatima were including imported textiles alongside the deceased. Finally, it is conceivable that domesticated dogs as companions and/or working animals was a concept imported from Egypt to the Kerma domain, though this notion requires further research if it is to be confirmed. Thus, I argue that although cultural identity in the Kerma hinterlands was largely centered on indigenous cultural traditions, and that this focus on Kerma culture continued even after the New Kingdom occupation of Nubia, it is also the case that specific objects from Egypt and elsewhere had become so culturally entangled within the local *habitus* that they became enmeshed in local conceptualizations of group identity.

VII. Revisiting the Hypotheses: Reflecting on Cultural Identity in the Kerma Hinterlands

A. Introduction to the Chapter

The primary goal of the research that forms the basis of this dissertation is to investigate how cultural identities were constructed, negotiated, and maintained in hinterland communities during the rise and fall of the Kerma state in Upper Nubia. The longstanding confluence of cultures that existed within the Nubian-Egyptian borderlands had profound and lasting effects on life in the Kerma capital as well as at the urban center located on Sai Island. These outcomes have been, and continue to be, well documented by a succession of scholars who have contributed invaluably to the current literature surrounding Kerma rule and the subsequent Egyptian encroachment into Nubia (Bonnet 1997; Buzon 2011; Minor 2012; Schrader 2015; Smith 1998). Such research has provided invaluable insight into our understanding of how populations in central polities experienced sociopolitical change during and after the Kerma period, and the ways in which material culture and physical health reflect evidence of that change. However, it is only in the last two decades that significant efforts have been made (Gratien 1997; Gratien et al. 2002; Welsby 2001; Wolf and Nowotnick 2006) to address these issues in outlying communities that played an important—if not less conspicuous—role in the interactions that characterized this period of social change.

The research presented in this dissertation represents the examination of seven distinct but interrelated lines of archaeological evidence documented within the Hannek settlement

and the Abu Fatima cemetery: ceramics, lithics, archaeofaunal remains, archaeobotanical remains, architecture, burial style, and personal items. Together, the analysis of these lines of evidence allows for the evaluation of the research hypotheses that were set forth in Chapter 3 of this dissertation. In the present chapter, I begin by employing the results of the various analyses to support or reject each of the three hypotheses that was to be tested through this research. The chapter then concludes with a discussion of the utility and importance of community-level analysis when investigating issues surrounding how cultural identities are manifested and how ancient identities can be addressed through the study of material remains.

B. Evaluating the Hypotheses

A total of 85,297 pottery sherds, 2,547 flaked stone artifacts, 1,370 faunal bones and bone fragments, three soil samples containing archaeobotanical remains, and the remains of numerous architectural structures were examined. In addition, burial style and grave goods in 20 tumuli and two rectilinear graves were analyzed. These lines of archaeological evidence were evaluated based on their similarity or difference to both Kerman and Egyptian stylistic traits to determine within a reasonable degree of certainty their most likely cultural origin. A summary of the hypotheses tested, along with their respective expectations, is presented in Table 35.

1. Assimilation

Hypothesis 1 posits that intensified Nubian-Egyptian interactions during the Kerma period effectively resulted in assimilation to Egyptian lifeways and practices at Hannek and Abu Fatima by the end of Kerma rule, as has been documented at other sites within the

Kerma domain. It is clear, particularly from the ceramic evidence, as well as the evidence for burial style and grave goods, that the populations of Hannek and Abu Fatima undoubtedly had access to goods imported from Egypt and possibly the Near East. However, none of the quantitative or qualitative analyses conducted for any type of evidence documented within the assemblages for these sites indicated that there were Egyptian populations living at Hannek or interring deceased community members in the cemetery at Abu Fatima. Furthermore, neither site contained evidence that there was a full or widespread replacement of locally made objects by those imported from Egypt or elsewhere, or a pattern of local goods being made to emulate an Egyptian style. Finally, there was no indication that Kerma burial style, or the construction methods and materials of funerary or settlement architecture, were supplanted by Egyptian traditions at any point during the sites' periods of use. Thus, based on the overwhelming preponderance of Kerma and Kerma-style objects and traditions observed both at Hannek and at Abu Fatima, coupled with the very small range of Egyptian imports at these site, Hypothesis 1 is rejected.

The archaeological evidence from Sai and the Kerma capital, as well as from other hinterland sites such as Gism el-Arba, shows a distinctive shift from Kerma practices and material culture toward a way of life that was heavily influenced by Egyptian cultural traditions with the onset of Egyptian colonialism in the region (see Chapter 5, this dissertation, for a more detailed discussion). It is currently unclear whether this shift occurred due to a desire by the populations of these communities for the purposes of strategic alignment, or whether these communities were obligated to adopt a new colonial way of life. In any event, it appears that not all Kerma communities engaged in the same cultural shifts taken on by their neighbors.

2. Entanglement

Hypothesis 2 states that intensified Nubian-Egyptian interactions throughout the Kerma period led to rural Kermans at Hannek and Abu Fatima developing a strong affinity for Egyptian objects and traditions and chose to merge various aspects of Egyptian culture into the local *habitus*, thereby creating a new entangled set of cultural practices. Results of the analysis of several types of evidence from Hannek and Abu Fatima indicate that the populations of these communities desired a small selection of objects imported from Egypt. Specifically, the ceramic assemblages from both Hannek and Abu Fatima each contained a small percentage of Egyptian ordinary wares and Egyptian marl wares. In addition, a narrow range of grave goods including Egyptian-style beads, an alabaster jar almost certainly imported from Egypt, and presumably at one time the original contents of the Egyptian marl jars were documented in a number of Kerma-style tumuli bearing Kerma-style burials within the Abu Fatima cemetery. That these lines of evidence were observed in both quotidian settings and in ritual contexts supports the notion that at least some Egyptian objects became culturally entangled with indigenous traditions at Hannek and Abu Fatima throughout all phases of the Kerma period. Therefore, Hypothesis 2 is supported.

As noted previously, this pattern of entanglement differs from the patterns present in the Kerma centers, and even in other rural Kerma communities, where the local culture was virtually replaced by Egyptian culture. The concept of entanglement within an anthropological context denotes the close intertwining of objects and traditions from two or more cultural groups (Dietler 2010; Jordan 2009, 2014; Silliman 2016). In this way, foreign objects and/or practices become deeply embedded in local lifeways, forming a unique set of combined behaviors and meanings (Silliman 2015). It is possible that each of the specific

object categories consumed by those residing in these two hinterland communities carried with it a particular meaning within these communities, or that they afforded their owners the opportunity to elevate their social status within a changing sociopolitical milieu by acting as markers either of economic mobility or of valuable political connections, especially as Egypt tightened its grasp on the Nubian frontier and such affiliations became increasingly useful.

3. Adherence/Rejection

Hypothesis 3 states that the inhabitants of the rural communities at Hannek and Abu Fatima adhered to their Kerman cultural identities, even as Egyptian encroachment intensified, while preserving their local traditions and consuming Kerma-style goods. This hypothesis suggests that these populations either chose to actively reject Egyptian and other foreign objects and practices, or that being hinterland communities, they were removed from the spheres of interaction that would have afforded access to imported goods. The vast majority of the archaeological evidence from both the Hannek settlement and the Abu Fatima cemetery indicates that traditionally Kerman objects and practices were highly favored in each of these communities.

In particular, a strong adherence to Kerma traditions was observed among modes of dress, among lithic and other tools, in the faunal assemblages, and in behaviors surrounding burial style as well as both mortuary and habitation architecture. It is largely the ceramic assemblages and the collections of jewelry and other items of personal ornamentation that present evidence for the incorporation of imported objects, however few, into the local repertoire. The presence of foreign goods within the material remains from both sites means that these populations certain did not choose to reject Egyptian culture outright. However, the overwhelming ubiquity of Kerma practices and material culture across all categories of

archaeological evidence suggests that Hypothesis 3 can be partially supported. It can therefore be concluded that Hypothesis 2, and a portion of Hypothesis 3, operated in tandem within the two rural communities that were investigated as part of this research.

It is certainly not unusual for societies engaged in competition and conflict to adopt highly polarized cultural identities and express those affiliations in overt ways (Jones 2007; Smith 2003). As was discussed in Chapter 3, it is often through interactions between disparate cultural groups that identities become explicitly defined, negotiated, and renegotiated due to a perceived necessity to distinguish 'self' from 'other' (Bhabha 1996). This is often the case in colonial settings, in which colonized communities create implicit means of resistance through emphasis on indigenous traditions (Barth 1969). However, it is

Table 35. Supported and rejected hypotheses along with their material correlates.

Hypotheses	Material Correlates
1. Rural Kermans developed an affinity for Egyptian objects and styles as Nubian-Egyptian interactions intensified, so much so that the local community ultimately assimilated to Egyptian lifeways.	• Access to Egyptian imports • Increase in Egyptian goods, practices, and/or influence over time • Replacement of Kerma practices and material culture with Egyptian ceramics, jewelry, tools, administrative paraphernalia, architecture, burial treatment, and iconography leading up to and following Egyptian conquest
2. Rural Kermans developed an affinity for Egyptian objects and styles as Nubian-Egyptian interactions intensified, and as a result, the local community blended Egyptian traditions with indigenous ones to create a new entangled set of cultural practices.	• Access to Egyptian imports • Persistence of local traditions alongside Egyptian influence • Locally made ceramics that combine Kerman and Egyptian forms and decoration • Kerma-style architecture that contains Egyptian or mixed Nubian-Egyptian artifact assemblages • Kerma-style burials that incorporate Egyptian-style iconography, grave goods, and/or body treatment
3. Rural Kermans adhered to their Kerman identity, even during the periods of Egyptian control in Nubia, maintaining local lifeways and consuming local goods ~~without incorporating Egyptian influence into the cultural milieu~~.	• Persistence of Kerma-style ceramics, architecture, jewelry, tools, iconography, administrative paraphernalia, and other material culture both before and during the Egyptian colonial period • Close and consistent alignment of foodways, burial treatment, and other practices typical of Kerma communities • ~~Absence of Egyptian goods, iconography, architecture, and burial treatment both before and during the Egyptian colonial period~~

also not uncommon for individuals or factions within colonized populations to bolster their status among their colonizers through the consumption of particular objects associated with the encroaching cultural group. It is therefore possible that the populations of Hannek and Abu Fatima largely sought to assert their Kerman identities in the face of Egyptian colonialism, while particular individuals within these communities pursued elevated social status through the consumption of a small set of Egyptian goods.

C. Analysis at the Community Level

The results of the analyses discussed above highlight the necessity of examining social processes at the site or community level. Through the examination of the archaeological material from the hinterland communities of Hannek and Abu Fatima, and their comparison to the findings of other researchers conducting work at the centers of Kerma and Sai, it becomes clear that disparate patterns emerge among urban and rural social settings. In addition, the material record from other hinterland sites such as Gism el-Arba demonstrates that differences occurred even among otherwise similar communities (Gratien 1997; Gratien et al. 2002). It is for these reasons that a community-level analysis becomes useful in understanding how individual factions residing in the diverse array of communities in both the Kerma heartland and its hinterland may have had differential access to or desires for particular imported goods. Thus, in order to gain an accurate representation of how contact and colonialism transform lives, then it is necessary to strive for higher resolution by examining these processes at a local, rather than regional, level.

The importance of employing a community-based approach to archaeology has been given increasing attention in recent years, especially in studies of New World regions (e.g., Canuto and Yeager 2000; Kolb and Snead 1997). Ethnographic studies conducted in

various world regions have also demonstrated the utility of investigating social processes at the local level (e.g., Misselhorn 2005; Shell-Duncan and Obiero 2000). The use of case studies to generate regional models of social behaviors is indisputably beneficial. Indeed, it is an essential tool when using archaeological data to better understand general patterns of behavior in the ancient past.

Great caution must be exercised, however, when using such models to generalize investigations of cultural identity, structuration, and consumption. This is because communities are ultimately composed of individual agents—not cultural monoliths—who make decisions and engage in interactions based on their individualized ideas and experiences. Thus, each community of individuals may form unique ways of envisioning and materializing shared identities through the consumption of material objects and presentation of self. It is only on rare occasions that it is possible to gain an accurate picture of one person's sense of cultural identity (though see Smith 2012 for one notable exception). It is therefore valuable to investigate these issues on a scale that is at once more attainable by the archaeologist as well as suitable for understanding identity on a smaller scale.

Such an approach is particularly valuable in investigations of the varied communities that made up the Kerma state, as well as their roles in the greater social and historical trajectory of ancient Nubia. It is often central polities that are given the most attention in studies of colonialism and interaction, largely because it was within these centers that the majority of economic and political transactions took place. Furthermore, a great deal of focus has been placed on investigating the lives and deaths of the royal and elite members of Kerma society, with significantly fewer forays into the experiences of commoner populations. While it is important to examine how those with the highest social status

engaged in sociopolitical processes, it is also crucial to examine how the non-elite majority shaped those processes through agentive decision-making and identity formation. For this reason, care must be taken to understand the differences not only between life in central and hinterland communities, but also between discrete communities within the hinterlands. The archaeological investigations conducted at Hannek and Abu Fatima constitute one step toward a more definitive knowledge of these differences.

D. Summary

Results of the analysis of a wide range of material evidence from the rural communities of Hannek and Abu Fatima indicate that life (and death) in the Kerma hinterlands was markedly different from that of urban populations and even from that of other hinterland groups. At Kerma and Sai, and at the rural site of Gism el-Arba, the archaeological evidence shows the predominance of Kerma objects and traditions in the earliest phases of the Kerma period. With the onset of New Kingdom colonialism, however, local culture was essentially eliminated, having been replaced by Egyptian traditions. At Hannek and Abu Fatima, however, multiple lines of archaeological evidence suggest that the populations of these communities largely adhered to Kerma lifeways. This practice seems to have persisted not only throughout Early and Middle Kerma, but also during Classic Kerma and the height of the Egyptian occupation.

However, the persistence of local cultural identity did not entail a total rejection of Egyptian culture. Not only did those at Hannek and Abu Fatima have either direct or indirect access to Egyptian imports, they also chose to incorporate a small set of Egyptian objects into their local lifeways and mortuary ritual. Based on the earliest evidence from Abu Fatima, the resulting cultural entanglement of objects and practices occurred quite early

in the course of Kerman-Egyptian interactions and was not, as one might expect, restricted to the period of colonization. This suggests that within these two rural communities, individuals were not obligated to consume Egyptian goods but instead chose to import them. In making these choices, hinterland groups effectively altered their respective *habitus* with respect to both quotidian and ritual practices, likely creating lasting effects on perceptions of cultural identity. This is not to suggest that by consuming a small selection of Egyptian objects the individuals in these communities viewed themselves as Egyptian; however, these patterns of consumption may certainly have changed, over time, what it meant to be 'Kerman.'

VIII. Confluence and Colonialism: Discussion and Conclusions of a Community-Based Approach to Identity and Intercultural Interactions

A. Introduction to the Chapter

In this dissertation, multiple lines of archaeological evidence have been employed to examine the construction and negotiation of cultural identities in the wake of Nubian-Egyptian interactions and colonialism. Specifically, this research has addressed consumption patterns as well as quotidian and ritual behaviors in two rural communities that were integrated into the larger Kerma state system in ancient Nubia. When situated within the theoretical frameworks encompassing colonial encounters, consumption, structuration, and practice theory, the objects and practices investigated as part of this research can aid substantially in understanding how social identities are conceptualized and manifested. Furthermore, this research has highlighted the importance of investigating these social processes at the community level by examining the differences in how expressions of cultural identity changed or persisted in urban and rural settings.

The categories of evidence that have formed the basis of the conclusions presented here include ceramics, lithics, archaeofaunal and archaeobotanical remains, settlement and funerary architecture, burial style, and personal items such as jewelry, practical implements, and other accouterments. The sites that are central to this dissertation—the settlement at Hannek and the cemetery at Abu Fatima—are two of only a few sites within the Kerma hinterlands that have been thoroughly investigated. In this chapter, I summarize the primary results of the research presented in this dissertation and discuss how the multiple lines of evidence documented during the excavation of these sites bridge the gap between anthropological theory and the archaeological record. The chapter concludes with a

discussion of the importance of including hinterland communities in investigations of contact and colonialism, followed by a statement regarding potential avenues for future research on these topics.

B. Illuminating Identity through Material Remains

1. Interaction and Colonialism

This research contributes theoretical advancements to the field of ancient Nubian studies, a discipline that has only recently bee subjected to archaeological approaches that apply anthropological or other social theory. In addition, this work contributes to the larger body of anthropological theory that focuses on crosscultural interactions and colonialism and their effects on cultural identities. As discussed in Chapters 2 and 5, Nubian-Egyptian interactions became well established during the course of the Kerma period. Such interactions underwent a diverse range of iterations, from a cooperative relationship involving largely economic exchange in the earlier part of the Nubian Bronze Age, to a significantly more contentious relationship of political uncertainty and struggles for control that characterized the later part of the Kerma period. In the end, what began as evenly matched interactions led to the eventual defeat of the Kerma state by its Egyptian neighbors, who colonized Nubia as part of the New Kingdom imperial agenda.

Such a long history of encounters between these two regional powers undoubtedly had lasting effects on how cultural identities were perceived and performed, both in urban and in rural settings. As discussed in Chapter 5, the Kerma capital and the urban center at Sai ultimately abandoned their Kerma lifeways, adopting instead a set of Egyptian objects, iconography, and practices with the advent of Egyptian dominion in Nubia. Similar patterns have been documented at Gism el-Arba, one of the few hinterland Kerma sites that have

been investigated. Gism el-Arba, however, may have served as a smaller, lower-level center within the Kerma state (Gratien 1997, 1999; Gratien et al. 2002). If the site did indeed serve some political or administrative function, it would not be unreasonable to expect that its population would have more in common with their counterparts at Kerma proper and at Sai than with those living in more remote communities.

As such, Hannek and Abu Fatima underwent a different set of circumstances, as was observed in the data discussed above. In each of these communities, the analysis of ceramics and grave goods indicate that Kerman-Egyptian interactions did result in the importation of a selection of Egyptian goods during and after the period of Kerma control. These data show that nearly 5% of all ceramics within the Hannek settlement and the Abu Fatima cemetery consisted of Egyptian ordinary, marl, and coarse wares. Additionally, a cosmetics jar and a number of beads documented within burials at the Abu Fatima cemetery were made from raw materials commonly used for this purpose in Egypt but not in Nubia, such as alabaster, silver, and stone. Although Egyptian goods appeared with greater relative frequency in the latest contexts at Abu Fatima, this was not the case at Hannek. And in both locations, the frequency of imported objects remained objectively very low through the sites' respective histories of use. Other categories of evidence at both Hannek and Abu Fatima, including lithics, faunal remains, architecture, and burial style, suggest that the members of these communities adhered strongly to local traditions, choosing to emphasize their Kerma cultural affiliation through the use of objects and practices that were typical of the Kerma style.

The patterns visible at Hannek and Abu Fatima are similar to those seen at hinterland Kerma sites in the Wadi el-Khowi. Researchers have noted the difficulty in identifying New

Kingdom remains due to the relative persistence of Kerma architectural traditions and material culture in that region (Welsby and Sjöström 2007). It may therefore be the case that the communities at Hannek and Abu Fatima shared cultural similarities with the southern Kerma hinterlands, which encompassed the Wadi el-Khowi, adhering to Kerma lifeways even as the state's primary and secondary centers adopted Egyptian traditions.

The archaeological patterns at Hannek and Abu Fatima suggest that crosscultural interaction alone does not necessarily lead to the widespread adoption of foreign cultural traditions, even in situations defined by uneven differentials of power, such as was the case in New Kingdom Nubia. If supported by further data, then these results could have far-reaching implications for other ancient communities in the Kerma hinterlands. The most prevalent of these implications may be that the impact of colonial and other intercultural encounters on social identities depend on multiple factors, including the geographical location of a community, its status as an urban or rural setting, and the unique desires and decisions of the individuals who make up the greater community.

2. Structuration and *Habitus*

This dissertation also contributes to a better understanding of the interconnectedness of structure and agency, particularly as these processes operate within a colonial setting. Although hinterland communities that partially made up the Kerma domain were subject to overarching structural institutions imposed both by the larger state system and by their own local leaders and societal norms, the members of these communities also employed individual agency in choosing to consume particular objects or engage in particular practices. Through their agentive decision-making, these individuals changed not only the short-term behaviors associated with quotidian and ritual practices, but they also enacted

long-term change by renegotiating their *habitus*—in other words, their very way of life. As was discussed in Chapter 3, such changes in *habitus* serve to alter the greater social structure, thereby creating new avenues for the perception and expression of social identities.

Although the vast majority of the archaeological evidence from both Hannek and Abu Fatima portray a close alignment with Kerma traditions, the presence of a small set of Egyptian objects within each of these site assemblages should not be overlooked. At the Hannek settlement, the data suggest that some individuals or households chose to incorporate a particular selection of Egyptian ceramics into their everyday repertoire. By far, the largest portion of Egyptian vessels in use during the site's period of occupation were ordinary wares, though marl wares and coarsewares were also present in considerably smaller quantities. No imported finewares were present, which stands in stark contrast to the relatively large proportion of Kerma-style finewares that were documented at Hannek. The presence of Egyptian utilitarian ceramics, paired with the absence of Egyptian finewares, suggests that the vessels likely served primarily quotidian functions and were not necessarily meant for conspicuous use. Thus, through daily mundane use, these vessels became ingrained within the local *habitus* and thereby became associated with the local cultural identity.

These patterns are echoed even in mortuary practice, as is demonstrated by the ceramic assemblage from Abu Fatima. While Kerma finewares dominate the assemblage, no Egyptian finewares were documented. Instead, imported vessels consisted almost entirely of Egyptian ordinary wares and marl wares, with the exception of a single alabaster jar. This trend, along with the predominance of other Kerma burial traditions at the Abu Fatima

cemetery, suggests that the most conspicuous aspects of mortuary ritual among the members of this community—namely fine ceramics and other grave goods, tomb architecture, and burial style—adhered to the Kerma canon almost completely. However, the presence of Egyptian utilitarian vessels suggests that at least some non-local objects so embedded in local practice that they had become associated with the local cultural identity even in death.

In this way, the structural norms of each of these communities were altered via individual agency, even if only to a small degree. Although excavations have been concluded at the Hannek settlement, further data from the ongoing excavations at the Abu Fatima cemetery, and at other rural Kerma sites, will be instrumental in investigating whether the data collected thus far are indeed representative of the broader structural changes that occurred as a result of crosscultural exchange among hinterland communities. If the findings presented here are substantiated by further research, then the imported objects that had become so inextricably intertwined with the local *habitus* at these sites may have had lasting impacts on how identities were maintained during both Kerman and Egyptian rule in Nubia.

3. Consumption and Entanglement

In addition to theoretical advancements related to intercultural interaction and practice theory, this research contributes to the ways in which social identities can be transformed through consumption patterns and the entanglement of cultural traditions. As noted in Chapter 3, choices involving the consumption of objects are symbolic actions, and as such, they are not made haphazardly. Instead, the consumption of particular sets of goods stems from the culturally informed preferences of individuals who, through their use of such goods, imbue them with meaning that becomes part of the local cultural milieu. It can thus

be argued that through the consumption of a combination of local goods made in the Kerma style and imported goods made in the Egyptian style of the period, the quotidian and mortuary traditions practiced at Hannek and Abu Fatima became culturally entangled. Moreover, the confluence of local and foreign traditions created a unique iteration of cultural identity in these communities that was neither entirely Kerman nor entirely Egyptian at any point during the sites' long histories of use.

The particular sets of Kerman and Egyptian goods that were consumed at Hannek and Abu Fatima point to an overall preference for the local style in both quotidian and mortuary contexts. Through the multiple lines of evidence examined as part of this research, it is possible to infer that the members of these rural communities undoubtedly had access to imported goods and were likely familiar with less tangible aspects of foreign cultural influence. However, patterns in the material record at both sites demonstrate that conscious choices were made to consume goods and engage in practices that were already well established within the Kerma domain. Even as Egypt tightened its grasp on its southern neighbors, those at Hannek and Abu Fatima largely clung to their local traditions. Meanwhile, their urban counterparts at the nearby Kerma capital and the more distant Sai Island gradually trended toward the consumption of Egyptian objects and an affinity for Egyptian culture as a whole.

In these central locations, the affinity for Egyptian traditions resulted in the near-disappearance of the Kerma culture by the start of the New Kingdom occupation. Notable exceptions, however, include some Kerma pottery extant in New Kingdom contexts at Tombos and Sai Island (Budka 2011), as well as the occasional Nubian style flexed burial in post-Kerma contexts at the colonial establishments of Tombos (Buzon et al. 2016), Soleb

(Schiff Giorgini et al. 1971), and Amara West (Binder 2014). Perhaps Hannek, Abu Fatima, and other hinterland communities such as those in the Wadi el-Khowi and the Fourth Cataract served as reservoirs for the persistence of Nubian culture within an Egyptian colonial landscape during and after the transition from Kerma rule to Egyptian colonialism. Meanwhile, the former Kerma centers became increasingly Egyptianized, with only singular elements of Kerma traditions persisting in some locations (e.g., the circular temple at Kerma).

But despite these overarching trends, the significance of incorporating particular Egyptian goods into local lifeways at Hannek and Abu Fatima should not be disregarded. To the contrary, these objects may have held a great deal of meaning in terms of perceptions of cultural identity within each of these communities, despite the fact that the Abu Fatima cemetery does not appear to have been in use during the Egyptian occupation. While it is impossible to know precisely what meanings were attributed to these objects, it is nevertheless informative to recognize which imported items or classes of items were considered meaningful. As stated previously, the small range of Egyptian objects documented at the Hannek settlement are restricted to three categories of utilitarian ceramic vessels: those used for everyday food consumption, those used for food preparation or other mundane tasks, and those used to transport and store beverages, oils, and other provisions. These same vessel types were also present in multiple contexts within the Abu Fatima cemetery, along with a few luxury items including beads and a small alabaster jar. Currently it is unknown whether the marl vessels once contained additional products imported from Egypt, though chemical analysis could provide some insight. In any case, it is important to

note that at both sites, imported objects appear in only small quantities and are present in only some contexts.

There are three possible explanations for these findings. One such possibility is that, as suggested in Chapter 2, the adoption of selected items from Egypt may have afforded some individuals the opportunity for status building, especially as Egyptian presence intensified in Nubia. If this was the case, then some locals may have chosen to associate themselves with particular aspects of Egyptian culture. Given the often-conspicuous nature of objects and practices employed in mortuary ritual (Nielsen 2008; Torres-Rouff and Knudson 2017), this alternative certainly seems reasonable in the case of Abu Fatima. It is, however, unclear how widely visible the utilitarian ceramics found in the Hannek ceramic assemblage would have been. It is possible that although utilitarian within Egyptian contexts, these vessels may have been viewed in the same way as locally made finewares within the context of a rural Kerma village, thereby creating an entangled set of high-status goods. If this was the case, then it is possible that the set of Egyptian goods consumed at each site were imbued with an elevated degree of symbolic capital.

The alternative explanation for the findings presented here is that all or some of the Egyptian imports present at Hannek and Abu Fatima were quotidian in nature and therefore did not necessarily bolster their owners' social standing. That no Egyptian items of excessive fineness or extravagance were documented in any habitation or burial context suggests that perhaps the objects that were chosen for import were desired due to their status as 'exotic' but useful items that could be easily adapted to existing ways of life. If this was the case, then these objects eventually may have come to be seen by their users as more Nubian than Egyptian, especially after having been in use for many years within these

communities (see Silliman 2015). As such, these objects would have become culturally entangled within the practices of everyday life.

There is no reason to suspect, however, that all items of Egyptian origin held identical cultural relevance within rural Kerma societies simply because they were Egyptian. Thus, the final possibility for explaining the results of this research is that certain Egyptian items were seen as high-status goods, while other more mundane items became integrated into quotidian cultural frameworks. It is therefore feasible that objects such as beads, stone cosmetics jars, and even imported food and drink provided social capital to those who owned them, while other objects such as utilitarian ceramics were valued simply for their practical applications. Regardless of which of these alternatives was true for these hinterland populations, the blending of Kerman and Egyptian cultural elements suggests that those at Hannek and Abu Fatima conceptualized and expressed their cultural identities in complex ways. Continued excavations at Abu Fatima and at other rural Kerma sites will most certainly shed additional light on these issues.

C. Implications and Future Research

1. Implications

The present research underscores the importance of including hinterland communities in archaeological investigations of intercultural contact and colonialism. While it is certainly beneficial to study the effects of these social and political processes on central polities and the identities of those who inhabited them, it is also crucial to recognize that urban centers are not the only communities that play a role in the enterprises in which state systems engage. Indeed, states are often made up of a far greater number of rural communities than urban ones. Thus, when researchers overlook hinterland populations, they overlook the

actions and experiences of a substantial number of individuals. Moreover, this dissertation highlights two specific notions regarding the effects of interaction and colonialism on cultural identities: 1) that the construction, negotiation, and transformation of or adherence to identities may differ between urban and rural settings, and 2) that these processes may differ even among disparate rural communities themselves. This research therefore suggests that archaeologists should strive to focus more heavily on the hinterlands in studies of identity and intercultural encounters. This is not to imply that central polities should be disregarded. To the contrary, the findings presented here demonstrate the need to examine the social processes that influence cultural identity across a diverse array of social settings, lest our results be skewed in one direction or another.

Examinations of identity in the ancient past, however, present the archaeologist with one seemingly monumental challenge—namely, that unlike ethnographic studies of modern populations, it is impossible to ask an informant how he or she conceives of and chooses to display his or her cultural affiliation. The psychological components of anthropological research are much more difficult to realize through the analysis of material remains alone. These aspects are somewhat more attainable when studying societies, such as ancient Egypt, that produced written texts or employed detailed visual iconography that can be analyzed in concert with other forms of material evidence. But in archaeological contexts where no visual or textual documentation is present, as was the case in Kerma period Nubia, one might question whether an entirely social phenomenon like cultural identity can be investigated at all.

Using multiple lines of material evidence can help bridge the gaps between the theoretical and the concrete aspects of social identities, even in cases where those who held

those identities are no longer living. Many early studies involving culture contact attempted to investigate the effects of these encounters by using ceramic vessels as a proxy for culture change or conservatism (e.g., Brandt and Slofstra 1983; Deetz 1963; Di Peso 1974; Okun 1989). Such studies often employed ceramic analysis to examine changes in the shapes and decorative elements of vessels over time, as well as to determine the number of locally made vessels and the number of imported vessels. The results were then used to quantify the degree of cultural assimilation or influence occurring within the subject population during periods of contact. Although these studies paved the way for approaching ethnic and cultural identity through archaeological means, they are problematic in two primary ways. First, recent research has demonstrated that cultural affiliation cannot be so easily quantified (Dietler 2010; Silliman 2015, 2016; Smith 2014). In other words, it is not feasible to conclude that 5% of the populations of Hannek and Abu Fatima perceived themselves as Egyptian while 95% saw themselves as Kerman simply because approximately 5% of their pottery was imported from Egypt while 95% exhibited local styles. Likewise, one would be mistaken in concluding that these populations were 5% assimilated to Egyptian cultural traditions. As Lightfoot et al. (1998) have aptly noted, such an approach assumes that culture change was passive and unidirectional, and they oversimplify the complex social processes that characterize colonial and other intercultural encounters.

The second setback associated with traditional approaches to questions of identity is that pottery—or any other artifact types—on its own is not a sufficient measure of how ancient peoples viewed or expressed their cultural affiliations. It is undeniable that ceramic vessels were deeply ingrained within both everyday practices and mortuary rituals. However, the same can also be said for the wide range of material culture that was produced, procured,

and used by these populations. The use of tools, clothing, and bodily adornments most certainly become part of one's *habitus*, as do the quotidian and ritual traditions that make up daily life. Thus, archaeologists should strive to document and analyze as many lines of evidence as are present within their study area in order to obtain the most complete picture possible from the varied array of data that are made available through archaeological excavations.

2. Future Research

There are several avenues of future research that can contribute significantly to archaeological studies of identity in contexts of contact and colonialism. First, it is essential to conduct further excavations at the Abu Fatima cemetery, and at other settlement and cemetery sites in the Kerma hinterlands, if a more robust understanding of life in rural Kerma is to be obtained. To date, settlement data is disproportionately underrepresented among studies of the Nubian Bronze Age and requires further investigation to achieve a more accurate depiction of everyday life and, as a result, social identities. In addition, while the cemeteries at Sai and the Kerma capital have been extensively documented, comparatively little work has been conducted in the cemeteries associated with smaller satellite communities in the Kerma domain (but see Emberling et al. 2014). Collecting data from additional hinterland communities would contribute greatly to a community-level analysis of Kerma sites by providing further comparative data and a larger sample size that can be use to infer broader social patterns. In addition, archaeological and bioarchaeological examinations of these sites would provide crucial data related to mortuary ritual, health, activity patterns, and geographic origin of populations, all of which are closely intertwined with the formation and expression of cultural identity.

Another fruitful avenue of future research is the use of instrumental neutron activation analysis (INAA) or x-ray fluorescence (XRF), as well as various methods of residue analysis such as gas chromatography/mass spectrometry (GC/MS), of ceramic samples from both the Hannek settlement and the Abu Fatima cemetery. INAA and XRF can be useful in determining the composition of raw materials such as temper, used in ceramic manufacture, as well as the composition of various surface treatments. Residue analysis using GC/MS can provide information about the foods or other products that were stored, prepared, or eaten using the vessel that is being tested. Determining the composition of raw materials can contribute to a greater understanding of the ceramic production process, which is embedded in the local *habitus*, and communities of practice within the Nile Valley. Likewise, when combined with archaeofaunal and archaeobotanical data, the analysis of food residues can inform our knowledge of foodways, which form a substantial portion of everyday life and, therefore, *habitus*. These various forms of analysis would therefore serve to bolster current research on identity and colonial encounters in the Kerma hinterlands.

Finally, an additional avenue for future research in this area is a systematic study of archaeobotanical remains from Abu Fatima, along with the collection an analysis of such remains from other hinterlands sites yet to be investigated. In general, archaeobotanical studies are presently not widespread in Nubian contexts, though there are a number of notable exceptions (Cartwright 2001; Palmer et al. 2009; Ryan et al. 2012). A dearth of such studies is unsurprising in the case of settlement contexts, where stratigraphy tends to be shallow and the preservation of organic material often poor due to erosion and deflation of sites. In the case of cemetery sites, however, and in settlements where deeper stratigraphy is present, botanical specimens can be quite well preserved, lending themselves well to

analysis. As noted above, these data have the potential to add substantially to investigations of cultural identity through an analysis of foodways in both quotidian and ritual settings.

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