AN ANALYSIS OF THE ARCHITECTURAL, RELIGIOUS, AND POLITICAL SIGNIFICANCE OF THE NAPATAN AND MEROITIC PALACES

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
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Abstract

The aim of this dissertation is the identification and analysis of royal residential, or palatial, architecture dating to the Napatan (ca. 750 - 300 BC) and Meroitic (300 BC - AD 350) periods in Nubia. The study focuses on the sites of Karanog, Faras, Kerma/Doukki Gel, Kawa, The Dongola Reach, Jebel Barkal, Meroe, el-Hassa/Damboya, Muweis, Wad ban Naga, Naga, and Musawwarat es-Sufra, all located along the Nile River between the First through Sixth Cataracts. While preliminary investigations of the palatial architecture has been done by the archaeologists excavating them, more work and analysis has been devoted to the religious architecture at these sites. This dissertation has been divided into seven chapters that each focus on a different element of the study. Chapter 1 provides an introduction to the overall goals of the thesis and presents the criteria used to determine the classification of a large-scale secular building as a "palace". Chapter 2 establishes the New Kingdom Egyptian palaces as predecessors of the Napatan and Meroitic versions and how these buildings may have influenced the design of those found in Nubia. Chapter 3 discusses the political context of Nubia's connection with surrounding African countries, such as Egypt
and the Aksumite empire, as well as with the Hellenistic world. Chapter 4 introduces the study corpus of Napatan and Meroitic period palaces through the excavation history of each building. Chapter 5 evaluates the religious context of the palaces particularly with respect to the coronation journey and New Year festival where the political and religious spheres would be united. Chapter 6 provides an examination of the Meroitic economy and social structure in relation to how the royal residence functioned within the Meroitic state. Chapter 7 concludes this dissertation with an analysis of the identification of each building presented in Chapter 4, with regard to its status as "palatial architecture".
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Chapter 1: Introduction

In 1984, William Adams published a comprehensive article on Meroitic architecture, concluding that, "we know a little about a great deal, and a lot about almost nothing" (Adams 1984: 255). Thirty years have passed since he made that statement and with continued excavations throughout Nubia additional information has come to light, yet certain aspects of that culture and society remain poorly understood. One particular aspect that merits systematic analysis is the layout and architectural features of the royal residence during the Napatan (ca. 750 - 300 BC) and Meroitic (300 BC - AD 350) periods.

I. Research Goals and Design

The goal of this dissertation is to provide an analysis of palatial architecture dating to the Napatan and Meroitic periods in Nubia through an assessment of the architecture, material culture, when available, and overall function of the building programs. Previous studies on Napatan and Meroitic architecture have focused upon structures with primarily religious or funerary functions, such as temples and tombs, rather than upon architectural features of complexes with more domestic functions, such as royal and non-royal residences.

The ultimate purpose of this dissertation is an attempt to gain an understanding of the architectural layout and development of Napatan and Meroitic palaces to determine the degree of similarity and difference among them. This process involves identification of buildings from these periods that can be classified as palaces based on specific criteria that can be utilized for an analysis of architectural elements and related material culture remains, to determine whether the structures belong to a specific ruler or whether they were associated with the Amun Temple and the king's coronation. Comparisons will be made with materials
from the different sites in order to establish a typology of palace structures and to assess the
classification of the buildings as such. It is also important to identify those elements that were
common features of Napatan and Meroitic palaces in order to determine differentiates them.

Various terms will be used in this dissertation to describe the buildings and the
cultures. Nubia is a general term for the country spanning from the First to the Sixth
Cataracts with the inhabitants referred to as Nubians. Within Nubia there are two primary
regions, Lower Nubia is located between the First and Second Cataracts and Upper Nubia
spanning from the Second to Sixth Cataracts. In antiquity Lower Nubia was referred to as
Wawat and Upper Nubia as Kush. When the capital of Nubia was first established at Napata
and later moved to Meroe, the people and culture were referred to as Kushite because they
were living in Upper Nubia, or Kush.

In order to fully investigate the criteria of the royal residence during the Kushite
periods, several elements need to be addressed. First, parameters need to be established
which can be used to build a definition for Nubian palatial architecture (see Chapter 2).
Given the degree of contact between New Kingdom Egypt and Nubia and Egypt's level of
influence on Nubian culture particularly during the Napatan period, a summary of New
Kingdom Egyptian palatial architecture will first be addressed. A presentation of Egyptian
New Kingdom Nubian town sites and an overview of the differences between the types of
New Kingdom Egyptian palaces will conclude Chapter 2.

One of the key issues that needs to be addressed before beginning the examination of
the buildings classified as palaces is how to establish the framework of the analysis. Similar
types of structures have been identified in both Egypt and Nubia; however, only one, the
Palace of Apries at Memphis, is contemporaneous with the Napatan and Meroitic period
buildings. This provides a dilemma because without foundational characteristics of a royal residence, determining whether or not subsequent buildings should be classified as palaces cannot be deduced. Although ideally the study would begin with native Nubian structures designated as palaces, the sole example of this type of building is the Classic Kerma palace dating to ca. 1750 - 1500 BC, almost 1,000 years prior to the Napatan period. Therefore, the decision was made to utilize the most temporally significant dataset of the Egyptian New Kingdom palaces. This corpus was chosen for three primary reasons. First, the New Kingdom (ca. 1550 - 1070 BC) is chronologically closer to the Napatan and Meroitic periods than the Kerma period. Secondly, Egypt and Nubia reached a height of their contact during the New Kingdom. Finally, the integration of foreign ideas and elements into native Nubian architecture was a sign of prestige, a practice evidenced south of the Third Cataract but not in New Kingdom Lower Nubia (van Pelt 2013: 530). Therefore, first identifying and isolating Egyptian palatial characteristics is imperative to this analysis.

Another important issue arises when trying to compare Egypt and Nubia, particularly with regard to their degree of contact. It is undeniable that the two countries had a connection with each other from their earliest periods; however, the manner in which this connection has been analyzed throughout studies of Egyptian and Nubian culture have focused on Egypt's power and influence over the "lesser" culture of Nubia. This type of analysis is incorrect and does not allow for the native Nubian culture to be recognized as an entity unto itself. More recent studies have begun focusing on how the Nubians integrated Egyptian culture into their culture while still maintaining the elements that defined them as *Nubian*. This line of analysis is known as "cultural entanglement", which allows for a more inductive and inclusive approach that does not favor one cultural tradition over another (van Pelt 2013: 541; Buzon,
Smith, and Simonetti 2016: 287). In a recent article by Michele Buzon, Stuart Tyson Smith, and Antonio Simonetti, their work at the Third Cataract site of Tombos demonstrates the practice of cultural entanglement during the New Kingdom Egyptian control over Nubia and the transition into the Napatan period through the analysis of cultural and biological links that emerged and developed during these periods (Buzon 2006: 683-695; Buzon 2014: 1-7; Buzon, Smith, and Simonetti 2016: 285).

While secular and religious architecture dating to the Egyptian New Kingdom and Napatan period in Nubia do have Egyptian elements, the Nubian style of architecture can clearly be seen in the funerary elements with circular graves known as tumuli. Burial practices are an integral element of cultural expression and can demonstrate how a group accepts and interprets death and the afterlife (Emberling 1997: 295-344; Smith 2003b: 37-42). Buzon, Smith, and Simonetti noticed is that in spite of the Nubian-style grave superstructures at Tombos, the burials themselves were an amalgamation of Egyptian and Nubian cultural influences: sporadic evidence of the use of coffins and mummification, amulets of Egyptian deities particularly Bes, Ptah-Pataikos, Isis, and Hathor, placing the deceased on a Nubian-style funerary bed, and sometimes laying the deceased in a flexed position (Buzon, Smith, and Simonetti 2016: 296). Evidence from excavations at Amara West and Sanam also demonstrate the use of both Egyptian and Nubian burial customs and an amalgamation of grave goods (Griffith 1923: 73-171; Lohwasser 2010; Binder et al. 2010: 25-44; van Pelt 2013: 539)

It is also important to address the Egyptianization model, which is the notion that culture was only transferred from the north to the south (i.e. from Egypt to Nubia). This is not an accurate assessment of the contact between the two cultures. The Egyptianization
model assumes that all levels of society wanted to aspire to adopt Egyptian symbols and ideology, yet the model does not account for degrees of acculturation within cultural groups (e.g. social class, gender, age) (van Pelt 2013: 531). Many groups within Nubia would have little or nothing of value to gain from assimilating into the Egyptian way of life. Furthermore, the Egyptianization model does not allow for Nubian influences on Egyptian culture. Some of the most notable examples of this are the ram imagery for the gods Amun and Ra, the tightly curled and cropped hairstyle, leather kilts worn by soldiers, farmers, and workmen, use of earrings, and the statue of Amenhotep II dressed as a Nubian soldier (Ni. de Garis Davies and Gardiner 1926: pl. 5, 13, 18 31; Brovarski et al. 1982: 175-176; Haynes 1991: 41-42; Bianchi 2004: 128; van Pelt 2013: 531-532).

As stated above, it is undeniable that Egypt and Nubia had contact with one another throughout their histories. During their interaction, culture and ideology was transferred between the two countries and the relations were two sided. Ultimately, cultural exchange was not simple, linear, or one-directional but equally influenced the Egyptians and Nubians.

Chapter 3 will provide an overview of the connection between Nubia and surrounding cultures, particularly Egypt, the Aksumite Empire, and the Hellenistic World in order to determine the degree, if any, of influence on the architecture of the palatial structures. Chapter 4 explores the Nubian corpus of buildings currently identified as palaces. Many of these buildings have been classified as such due to their size and placement within the sites in which they are located. Whether or not those structures should continue to be labeled as palaces will be addressed in the final chapter of this dissertation.

Chapter 5 will also analyze the significance of the god Amun with regard to Nubian kingship and investigate the importance of the Amun temple-royal residence complex during
the Napatan and Meroitic periods. Chapter 6 will focus on the socioeconomic context of the palaces. These chapters will provide a framework for examining how the buildings presented in Chapter 4 functioned within the landscape of the various sites.

Conclusions will be presented in Chapter 7, where all elements discussed in the previous chapters will be synthesized, in order to draw conclusions about the buildings identified. Finally, a table for the classification of monumental structures as *palaces* developed on the basis of this analysis will be presented to serve as a foundation for future studies of Nubian architectural traditions.

II. Methodology

One of the primary issues surrounding the identification of these palaces, both in Egypt and Nubia, is the dearth of extensive archaeological evidence. Although ancient Egypt was a thriving culture in the ancient Near Eastern world, only thirty-eight Egyptian buildings have been identified as palaces, of which twenty-three date to the late Second Intermediate period and the New Kingdom (Emery 2014: 108). Part of the reason for the small number of identifiable palaces in the Egyptian context is a need for a better definition of what constitutes a royal palatial building rather than a large-scale non-royal dwelling or temple (Emery 2011a: 36-39; Emery 2012; Emery 2014: 48-71). This has led to conflicting designations of the buildings by varying authors (Pagliari 2012: 203). Application of modern, western ideas of what constitutes a palace are not appropriate to such a study (Uphill

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1 Giulia Pagliari rightly states that authors on this subject regularly contradict one another regarding the classification of the palaces as "residential", "ceremonial", "administrative", or "defensive" where one building may be categorized under more than one type of building (Pagliari 2012: 203, note 844). This issue has also been addressed with regard to the site of Amarna where scholars argue about the classification of the Great Palace as a temple or a palace (Uphill 1970: 151-166; Assman 1972: 143-155; Kemp 2012).
In the context of the ancient world, a royal residence was composed of an assortment of buildings surrounded by an enclosure wall, which sometimes offered the only unity for the buildings within it (Uphill 1972: 721). The enclosure wall provided a way for the buildings to be considered in context to one another rather than as a random arrangement of structures. Given the array of form and function of the extant so-called 'palatial' buildings in ancient Egypt and Nubia, a range of definitions have been proposed by various scholars (Table 1).

The classification of a building as a residential palace is based upon its function as a dwelling place for the king and/or members of the royal family. According to David O'Connor's analysis, in the Egyptian context this type of palace does not have a court in front of the palace itself. Rather there is a large, columned and roofed audience hall as well as places for public assemblies (O'Connor 1989: 76) which have a higher or lower elevation based on the importance of the rooms. For example, the ceiling is higher over the columned hall, sanctuary, and throne room, and is lower over the surrounding chambers. Some of the architectural features frequently found in association with a residential palace in Egypt are an enclosure wall, an off-axis entrance, a vestibule or series of vestibules, a central hall or court, a throne room, and a royal bedroom with a bath installation for washing the body by pouring water of it. Additional rooms or features sometimes appear in these various palaces which include a Window of Appearance, suites designated for female members of the royal family, and storerooms (Lacovara 1993: 61; Lacovara 2009: 103).

In Egypt, the king was the representative of the sun god Ra on earth; therefore, the palace as the king's residence was analogous to the temple as the residence of the god(s). In this context, the palaces, like temples, played a role in the Egyptian concept of the cosmos,
which was articulated through its plan, shape, and decoration (O'Connor 1989: 74).

Examination of these features allows for insight as to how the palace functioned in the Egyptian cosmology. The Egyptians strived to maintain order in their world through daily rituals as well as seasonal feasts and festivals in the temples. They attempted to preserve order through creating in the palace a microcosm of the universe: "the Egyptians gave to royal governmental ceremony and business, and even to royal private life, the same authority and effectiveness as temple ritual, and made them as much part of the workings of the orderly universe as [the temple]" (O'Connor 1989: 74).

Along with residential palaces in which the royal family lived for significant amounts of time, temple palaces have also been the focus of studies regarding Egyptian palatial architecture. These types of palaces were elements of larger temple complexes, located on the south side of the main temple with axes oriented perpendicular to the main temple axis. They have the court with a colonnade imbedded inside the palace walls as well as a façade which fronted the court. The structures were square or rectangular in form with a tripartite plan featuring a court followed by a hypostyle hall and a throne room (O'Connor 1991: 170-172; Pagliari 2011: 103-106; Pagliari 2012: 202-215; Emery 2014: 130-133). Unlike the residential palaces, which were primarily constructed of mud-brick with stone architectural elements, temple palaces were constructed of both stone and mud-brick.

Temple palaces are most commonly attested during the later New Kingdom; however, textual evidence exists for Eighteenth Dynasty predecessors. Rainer Stadelmann has suggested that the Mortuary Temple of Hatshepsut at Deir el-Bahari may have been the first example of a temple palace (Stadelmann 1973: 229 ff.; Stadelmann 1994: 312). The presence of an even earlier Eighteenth Dynasty temple palace is suggested as one is mentioned on the
walls of the Red Chapel of Hatshepsut at Karnak (Gitton 1974: 72-73; O'Connor 1995: 270-272; Stadelmann 1996: 226). The text mentions that the palace was attached to a temple or chapel, evidence suggesting that this structure may have served as a residence for the royal family, possibly during ceremonies (Fig. 1) (Gitton 1974: 63). Examples of additional New Kingdom temple palaces include the mortuary complexes of Ay and Horemheb, Seti I, Ramesses II, Merenptah, and Ramesses III (Fig. 2) which will be investigated later in Chapter 2.

Administrative architecture is difficult to identify given that it typically comprises elements incorporated into the building as a whole, such as storerooms or offices (Emery 2011a: 36-39; Emery 2012; Emery 2014: 57-61); however, in the New Kingdom, administrative architecture is more identifiable than in earlier periods. Blocks of storerooms, particularly groups of long, narrow cells, are arranged next to each other, and are the most easily identified elements of centrally administered storage (Emery 2014: 57-61). Large-scale storeroom complexes can be found in Theban royal mortuary temple contexts where a corridor provides access to double blocks of storerooms and is combined with single blocks and office spaces (Emery 2014: 57-61). These spaces were presumably used for the counting and recording of goods as well as to serve as offices for the administrators.

Most research on Egyptian palaces to date has focused on the definition and function of the palaces, but little study has been devoted to clearly outline how the buildings were identified as palaces based on the archaeological record. A recent definition was presented by Virginia Emery at the 2012 annual conference of the American Research Center in Egypt (ARCE), and expanded upon in her 2014 doctoral dissertation in which she proposes a two-part definition. The first part of the definition is based on form and the second part based on
function in order to accommodate buildings that have archaeological remains, as well as those only attested in textual references (Emery 2012; Emery 2014: 48-71). Since some of these elements can also be identified within non-royal domestic contexts, particularly the houses of the elite, Emery qualifies her proposed definition by stating that to fit her parameters of a palace, a structure must comprise a residence used by a ruler, such as a king or a governor, and his household (Emery 2012; Emery 2014: 105-133). Additionally, O'Connor rightly states that, "[d]espite this variety, however, there are certain key features of plan, architectural form, and decoration that occur in all the palaces and create a recurrent unity overlying the functional variability and its effects" (O'Connor 1991: 172).

An issue in need of attention is the forfeiture of a strictly functional definition for what constitutes a palace. The buildings identified as such should not be categorized solely by a single function such as habitation by the king. The palace was also a place where many different activities occurred, including administrative, industrial, ceremonial, defensive, social, recreational, and residential (O'Connor 1989: 73-87; Winter 1993: 27; Arnold 2003: 169-170; Emery 2011a: 36-39; Pagliari 2012: 204; Kemp 2012: 124; Emery 2012; Emery 2014: 105-133). Therefore, the buildings identified as palatial structures should be regarded as serving as institutions rather than as mere residences.²

However, the issue still remains of attempting to describe what would define a building as a palace. Given the multiple functions of the so-called palatial buildings, the following elements should be considered: placement within the site and relationship to surrounding buildings, their size, building materials used, room organization, control of

² For a sample of further discussions on the idea of kingship in the ancient Near Eastern world, see: Hooke 1958; Uphill 1972: 721-734; Frankfort 1978; Winter 1993: 27-55; O'Connor and Silverman 1995; Gundlach and Taylor 2009; Gundlach and Spence 2011; Hill, Jones, and Morales 2013; see also the references cited throughout each source. It is worth noting that this list is far from exhaustive, but serves to provide a starting point for further reading on this topic.
access, decorative program, and material culture, where available (Vandier 1955: 1004-1022; Badawy 1968: 35-55; Arnold 1982: 644-646; Pagliari 2012: 202; Emery 2014: 105-133). All of these elements can indicate what the proposed function(s) of the rooms as well as the buildings as a whole may have been. The presence of a palace marked a site as an important place (Lacovara 1993: 42), and palatial buildings would have been located at the highest and most central position of the site in order to be the most prominent structures within that landscape. The auxiliary building (e.g. granaries, kitchen areas, industrial sectors, ceremonial sites) supporting the palace would have been placed near and around the palace structure itself.3

Along with the placement of the palaces, their size in relation to other buildings is a vital element in determining whether or not a structure actually served as a royal residence. The palace complexes would have been dwarfed by the temple complexes, yet they would have been significantly larger than even the largest of elite residential complexes (Spence 2009: 170).

Although the palace would have been the seat of kingship in Egypt and Nubia, these buildings were constructed in the same manner as other domestic dwellings — mud- and burnt-brick with stone architectural details such as door jambs and window lintels — rather than primarily of stone, which was reserved for the construction of temples as well as religious and funerary structures.4 Room organization is also a factor when identifying what should be understood as a palatial building. The throne room and accompanying residential

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3 The development and layout of ancient Egyptian and Nubian settlements, as well as settlement archaeology in a broader context, has gained more importance with successive analysis and might provide additional insight into how buildings were arranged and functioned within a site: Fairman 1949: 33-52; Badawy 1967: 103-109; Ucko, Tringham, and Dimbleby 1972; Adams 1974: 39-51; Kemp 1977c: 123-139; Bietak 1979: 97-144; Shaw, Sinclair, Andah, and Okpoko 1993; Richards 1999: 83-100; Grzymski 2004: 7-30; Grzymski 2006: 377-393.

suites — comprising bedroom(s), dressing room(s), and bathroom(s) — were located at the core of the palace structure. Surrounding these rooms are auxiliary rooms such as kitchen and food preparation areas, storerooms and offices, and separate residences for the royal women.

Access to the king would have been controlled through the use of enclosure walls, gateways, and paths contained within the palace itself. This same type of control can be found in domestic, religious, and institutional buildings (Spence 2009: 172). All strata of Egyptian society appear to have valued control of access within domestic settings, with even the earliest attested houses dating to the Old and Middle Kingdoms showing evidence of a closed pattern that would increase privacy and restrict the movement of visitors (Roth 1993: 35-37). Limited access also ensured that different classes of people within a residence could pass through the halls without encountering one another.

Private spaces within the palace also featured restricted entrances from public areas as determined by investigation of the King's House at Amarna where the house did not have a point of entry accessible from the public gardens (Spence 2009: 173). Control of access for the palace was not limited to entrance into the building either. Access within the palace was regulated to accommodate various requirements including: speed, the need for attendants, attire, and weaponry (Spence 2009: 174).

The manner in which a building was arranged could vary between axial, non-axial, and semi-axial alternatives (Spence 2009: 175-178). Axial palaces have an arrangement around a presumed line of visibility between the entrance and the throne room, which emphasizes the approach to the throne. These types of palaces possibly served to highlight the formal presentation of the king (Spence 2009: 175). Non-axial palaces do not have a direct approach to the throne room from the entrance. They generally have columned halls, a
throne room, and auxiliary rooms. Many of the non-axial palaces appear to have been built using a casemate foundation and were possibly used for informal meetings between the king and his courtiers as well as high officials (Spence 2009: 176-177). Semi-axial palaces were made up of an inner area with small chambers or suites positioned along a hall or court that opened to a throne room. This type of arrangement may have been used to stress the relationship of an individual, possibly the royal women or immediate family members, to the king (Spence 2009: 178).

Conversely, temple architecture generally adhered to an axial layout, which allowed more direct access through the building (Roth 1993: 38). This access pattern remained consistent throughout Egyptian history. In later periods, images of the gods were carried through the temple relating to participation in festivals and other ceremonies. Their path was compared to the sun crossing the sky, thus indicating a direct and straight pathway (Roth 1993: 39).

Decoration of the palace walls included scenes of supremacy over foreigners, and perhaps the interior walls would also have had scenes of royal ceremonies and military processionals (O'Connor 1989: 77). The decoration upon the walls, floors, and ceilings are also suggestive of the cosmological significance of the palace. Such features would have included depictions of bound captives below the Window of Appearance and throne, marsh and water scenes on the pavements, and birds and stars on the ceilings. These motifs are seen in the palace of Merenptah at Memphis, the palace complex of Amenhotep III at Malqata (O'Connor 1989: 77; Lacovara 2009: 85), and the Great Palace at Amarna (Kemp 1989: 224, fig. 77; Weatherhead 1992: 179-194; Kemp 2012: 142).
The Window of Appearance was an important feature found primarily in temple palaces, but also appears occasionally in residential palace contexts. The Windows served as an important element of the interaction between the king and his courtiers, and were often depicted on the walls of the nobles' tombs to emphasize their privileged access to the king (Spence 2009: 180). These Windows are designed like a recessed balcony located in the center of the front wall of the palace. A staircase on the inside of the palace would have provided access for the king to the Window of Appearance (Hölscher 1941: 45; Kemp 1976a: 82; Arnold 2002: 282). The Windows were used by the king for bestowing rewards upon courtiers and officials who would approach from below where they stood at a lower elevation in the temple forecourt (Kemp 1976a: 82). The relief program associated with the Windows included themes of the king defeating his enemies, particularly in Dynasty 19 and 20 representations (Hölscher 1941: 40-43, plate 3; Arnold 2002: 282). Windows of Appearance may have only been a feature found in axial palaces perhaps because they were part of a more formal setting than a meeting between the king and his courtiers as in the King's House at Amarna (Spence 2009: 182).

In addition to the buildings themselves, the material culture found at the sites where palaces were constructed can often aid in the interpretation of the palaces as well. The types of materials found can offer information about the function of a site and the structures within it. For example, if an abundance of bread moulds are found, it can be deduced that the site probably had a ceremonial function because bread was a staple element in cultic rituals. If iron slag is found, the area was likely to have been used as an industrial sector. If weaponry is prominent, then a fortification or area for security is logically possible. With regard to

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5 Nefertiti, and sometimes her daughters, have also been represented leaning out of Windows of Appearance (Spence 2009: 181-182). For an example of this type of scene, see: Kemp 2012: figure 1.1. For a detailed study of the Window of Appearance, particularly in Amarna architecture, see Vomberg 2004.
residences, domestic items would be expected such as cooking pots, bedroom furniture, and toiletries.

Textual evidence can also be used to determine who built a palace and potentially how it was used. The Palace Complex of Amenhotep III at Malqata contained many inscribed artifacts including jar labels, jar sealings, brick stamps, faience finger rings, scarabs, cowroids, plaques, amulets, molds, faience vases, kohl-tubes, and various other small inscribed objects (Hayes 1951: 35-56, 82-112, 156-183, 231-242). The inscriptions on the objects enabled the excavators to interpret their purpose within the broader context of the site. For example, a document stamp found at Malqata bore the name of Queen Ankhesenamun, which indicates that official documents were still being sent to Malqata during the reign of Tutankhamun, the grandson of Amenhotep III (Hayes 1951: 177). Therefore, textual evidence must be analyzed along with other types of evidence, such as related artifacts, (Hodder 1998: 111) in order to gain a broader idea of how the inscriptions should be interpreted within their context.

Architectural and artifactual remains can also provide insight as to how people interacted with their environment. Material remains can also indicate social relationships through their exchange between individuals or interpreted on a larger scale, such as trade between countries (Hodder 1998: 114; Smith 2003a: 39-64; Smith 2003b; Tilley 2003: 67-75). The jar labels from Amenhotep III’s palace complex indicate the buildings were used for the celebration of his three heb-sed festivals. The labels also allow for the identification of the stages of construction of the site (Hayes 1951: 35-56, 82-112, Emery 2014: 22-30).

Pottery can also indicate the type of settlement discovered. At Medinet el-Gurob the pottery was comprised primarily of domestic wares including amphorae, cups, bowls, meat
jars, and bottles/flasks which indicate a settlement site rather than a religious or industrial site. Furthermore, the materials used to produce the artifacts themselves can indicate whether an object was locally manufactured or imported. That criteria is important because it is proof of contact between countries. The presence of foreign pottery fabrics can provide insight as to which countries were transporting goods to the inhabitants at Medinet el-Gurob. For example, Canaanite amphorae were found which certainly held wine from that region.

In the context of this dissertation, the material culture of the palaces can provide an understanding of how the rooms and buildings were used based on the inscriptions and objects found within and around the structures.

III. Source Material

Direct examination of some of the palaces at Meroe during two trips to Sudan as a member of the Royal Ontario Museum-University of Khartoum expedition (Drs. Krzysztof Grzymski and Hwida M. Adam, Directors) provided first-hand exposure to the buildings and enabled direct assessment of them within the broader scope of the site. As part of the team was also invited to other sites including Jebel Barkal, el-Hassa, Naga, Wad ban Naga, and Dangeil where I was able to visually examine, where present, both the palaces and the associated (?) Amun temples that had been excavated.

Many sites provide evidence for the remains of Napatan and Meroitic palaces, yet due to preservation problems several palaces have been destroyed or are in such poor condition that they are difficult to reconstruct. The palaces that will be discussed in this dissertation include those at the sites of: Karanog, Faras, Kerma/Doukki Gel, Kawa, the Dongola Reach (Selib, Sonijat, and Usli), Jebel Barkal, Meroe, el-Hassa, Muweis, Wad ban Naga, Naga, and
Musawwarat es-Sufra (Fig. 3). These sites were chosen because they have been identified by archaeologists, both past and present, as having large-scale buildings that have been classified as palaces. Some of the buildings have plans that are in published and unpublished reports, while others are still being investigated and have only been identified through geomagnetic surveys of the site. Given the finite number of structures that have been classified as palaces dating to the Napatan and Meroitic periods, each building will be analyzed throughout this dissertation.
Chapter 2: Toward a Definition of Form and Function of the Palaces: The New Kingdom Predecessors

New Kingdom royal cities are some of the best documented communities of urbanized Egyptian society and the buildings serving as the focal points for these cities are the royal residences. Many of the palaces were extensively excavated by early archaeologists, yet the reports remain largely unfinished or unpublished, and often raise more questions about the design and function of the buildings (Lacovara 1993: 42) than they answer. The focus of this chapter is to introduce the corpus of New Kingdom Egyptian palaces in order to establish how the characteristics of royal residences presented in Chapter 1 can be utilized in identifying the buildings as palatial in nature and purpose.

I. Examples of Egyptian Palaces

I.A. Deir el-Ballas

Deir el-Ballas (Fig. 4) was originally excavated by George A. Reisner, Albert M. Lythgoe, and F.W. Green as part of the University of California Hearst Egyptian Expedition, and later the examination of the site was continued by the Museum of Fine Arts, Boston under the direction of Peter Lacovara from 1980-1986. The majority of the construction dates to the reign of Ahmose. The site was abandoned soon after his reign, thereby suggesting a specific short-term use (O'Connor 1996: 87).

I.A.1. North Palace

The North Palace (Figs. 5-7) is located roughly between the North and Central Wadis and is constructed out of substantial mud-bricks (ca. 55 cm x 28 cm x 15 cm) that were
roughly bonded with mud mortar. It is surrounded by an enclosure wall that defines an area of at least 45,000m² (Lacovara 1983: 7; Lacovara 1990: 2). The North Palace complex is arranged on an elevated platform atop a casemate foundation comprised of long mud-brick chambers (Lacovara 1997: 8; Malecka-Drozd 2014: 69-96). This casemate core has walls that are preserved to a height of 5 m in some areas and filled with rubble up to a height of approximately 3 m (Lacovara 1981: 121; Lacovara 1996: 144). Additionally, the casemate core had no doorways and was covered with a mud-brick pavement, which differentiates this type of construction from storerooms and storage areas. The core may have supported a second level which is where the private apartments and throne room may have been located (Lacovara 1996: 147).

The thickness of the casemates indicate they were load-bearing and the room arrangement may have mirrored that of an upper storey (Lacovara 1996: 147). If this is the case, then the second level would have featured a large central room fronted by a vestibule with smaller chambers surrounding the other three sides (Lacovara 1997: 8). However it remains unclear whether or not the casemate core would actually indicate the presence of a second storey. Fronting the casemate core was a series of columned courts with column bases spaced at 2 m intervals and a long entrance corridor paved with cobbles set in mud (Lacovara 1981: 121; Lacovara 1983: 7). On top of the Dynasty Eighteen levels were remains from Coptic and Roman occupations.

Ceramics found throughout the site are from an extensive, well-dated group of early Dynasty Eighteen domestic and mortuary contexts along with pottery from Pan-grave and Kerma cultures (Lacovara 1980: 4; Lacovara 1985: 19-20). The Nubian pottery assemblages constitute a smaller component of the overall collection (Bourriau 1990: 16) and are closely

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6 The remaining portions of the building measure approximately 94.8 m x 102.6 m, thus totaling 9,726.5m².
related to Kerma ceramics including fine wares, beakers, and coarser wares for cooking and storage. The Egyptian ceramic assemblage was comprised of Nile silt B and C, fine marl A, and a variety of Marl B and C (Lacovara 1985: 20; Bourriau 1990: 20). In addition to these examples, there were one or more imported amphora fabrics also found at Deir el-Ballas (Lacovara 1985: 20). The range of pottery found at the site is important for its dating to the late Second Intermediate Period through the early Eighteenth Dynasty (Lacovara 1985: 20; Bourriau 1990: 15). A jar-sealing of Ahmose was found on the floor level of the building among pottery dating to the Eighteenth Dynasty (Lacovara 1981: 121). Since the exact contexts of the ceramics are unclear, it is difficult to use them for extensive analysis of the palaces.  

The layout of the North Palace indicates that this building was a transitional type between the royal palaces seen at the Middle Kingdom site of Tell Basta (van Siclen 1996: 239, fig. 1), and the New Kingdom examples such as the palace complex of Amenhotep III at Malqata and that of Merenptah at Memphis (Lacovara 1996: 147; Lacovara 1997: 8). The North Palace also resembles two buildings at Tell el-Dab'a. The first is a Second Intermediate Period structure at locus H/III (Forstner-Müller 2010: 109, fig. 4). The second is Palace G at Tell el-Dab'a, formerly known as a structure at locus H/II in the Ezbet Helmi precinct (Bietak 2005b: 161; Lacovara 2006: 189), which has a casemate core of long, rectangular cells flanked by perpendicular shorter cells and is located within a large enclosure (Lacovara 2006: 189). The similarities between the two buildings along with images of soldiers (Fig. 8) and weaponry found may indicate that the North Palace served as a campaign palace (Lacovara 2006: 187). This type of palace can also be found in the Nubian "Administrative

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7 For additional information on Egyptian pottery dating to all time periods of Egyptian history, see Wodzińska 2010a-d, and the references cited throughout.
Building" at Kor and the Uronarti "Palace" of Senwosret III, both dating to the Middle
Kingdom (Kemp 1986: 134-136). Campaign palaces would have been erected as temporary
headquarters inhabited prior to large-scale military campaigns (see Table 1).

I.A.2. South Palace

The South Palace (Fig. 9) is located approximately 800 m from the center of the town
on top of a high hill that marks the southern boundary of the site (Lacovara 1981: 121;
Lacovara 1990: 5; Lacovara 1996: 144). It is rectangular in plan, measuring 100 m x 44 m,
and is arranged around a central court which is fronted by a platform. This platform is built
using a casemate construction that has been preserved to a height of 5.5 m. What the
casemates were supporting is unclear; however, they are bonded to the eastern wall which
also has a monumental staircase leading to the top of the platform (Lacovara 1981: 121;
with gypsum plaster have been found on top of the platform. This building would not have
been aligned with the overall structure; therefore, its use has been debated. Unfortunately,
there are no settlement or cultic archaeological deposits (Lacovara 1996: 144), which
suggests this building did not serve as a long-term residence.

The South Palace at Deir el-Ballas also has features that are similar to the Kom el-
Abd at Malqata constructed by Amenhotep III (Lacovara 1996: 144). The platform at Kom
el-Abd (Fig. 10) has a foundation similar to the casemates of both the North and South
Palaces at Deir el-Ballas and consists of chambers without doorways that were filled with
rubble and covered with a mud-brick paving (Kemp 1977a: 72; Małecka-Drozd 2014: 69-96).
However, the structure on top of the casemate foundation was a square brick room
which was not in alignment with the main structure and its walls were not associated with the internal strengthening of the platform walls. O.H. Myers, as cited by Barry Kemp, commented that this room might have served as a guard post (Kemp 1977a: 75). The location of the South Palace and the Kom el-Abd, both erected at the southern boundary of the sites, may also be an indication of a similar function.

Given its placement within the site and its location atop a high hill, it is possible that the so-called South Palace at Deir el-Ballas might have actually served as an observation post to monitor river and land approaches to the site (Lacovara 1983: 7; Lacovara 1990: 5; Lacovara 1996: 144) rather than an actual palace. The isolation of the South Palace in relation to other buildings at Deir el-Ballas may also indicate that it served as a temporary retreat from palace life (Kemp 1977a: 81). However, if its purpose was to house the king, then it would fall under the category of a royal residence but more in the capacity of a "mooring place of Pharaoh" rather than a full-scale palace. Similar structures have also been found such as Palace F at Tell el-Dab'a, formerly designated as a building at locus H/I in the Ezbet Helmi (Bietak 2005b: 161; Lacovara 2006: 192), as well as structures at later sites including el-Ahaiwah and Gebelein (Lacovara 2006: 192).

I.B. Tell el-Dab'a

The site of Tell el-Dab'a (Avaris) (Fig. 11), located in the eastern Delta on the Pelusiac Branch of the Nile, was the capital city of the Hyksos rulers who controlled Egypt during the Second Intermediate Period. Tell el-Dab'a is also the likely site of the location of
the Thutmoside naval base Perunefer (Bietak 2005a: 80-81). Excavations began in 1885 by Édouard Naville and are currently being carried on by the Austrian Archaeological Institute of Cairo under the co-direction of Manfred Bietak and Irene Forstner-Müller.

Tell el-Dab'a continued to be strategic during the New Kingdom as evidenced by a large palatial quarter (5.5 hectares) (Fig. 12) that was constructed during the reign of Thutmose III. Within this quarter are three palaces varying in size. The largest, Palace G (ca. 12,792 m²), is separated from the second largest building, Palace F (3,300 m²), by a large artificial lake (Bietak 2010a: 22). The smallest of these structures is Palace J (1,207.5 m²) located to the southwest of Palace G. All three buildings were constructed atop mud-brick platforms measuring at least 7 m in height and accessed via ramps (Bietak 2005a: 75; Bietak 2010a: 22; Małecka-Drozd 2014: 69-96). The casemate foundations were the sole remains of these buildings that could indicate the plans of these structures. An enclosure wall, with a pylon on the north-south axis of the courtyard, surrounded the entire palatial area (Bietak 2005a: 75).

Palace G (Fig. 13) appears to have both residential and religious areas adjacent to one another, which was a type of architectural layout known from the Aegean World (Bietak et al. 2007: 22). There were two entrances to this building. The main entry was attained via a ramp and a secondary entry was sited along the eastern side of the edifice by means of a

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8 The identification of Tell el-Dab'a with the New Kingdom naval base Perunefer is supported through various evidence. The site of Perunefer is mentioned in British Museum Papyrus 10056 where a list of items, primarily wood for building or repairing ships, is provided (Bietak 2010b: 11). Geophysical surveys also identified a large square harbor basin (ca. 450 m x 400 m) that had an inlet and an outlet to the river, which could be an indication of regular maritime activity (Forstner-Müller et al. 2008: 87-106; Bietak 2010b: 18). Paleographic study of the sediment from the basin by Hervé Tronchère and Jean-Philippe Goiron of the University of Lyon concluded that it is harbor sediment (Tronchère et al. 2008: 327-339; Bietak 2010b: 18). The level of the Nile at different times of the year also suggests that the naval base was located at Tell el-Dab'a rather than at Memphis. With the low water levels from January until June, navigation in the Delta would essentially stop. Additionally, the ships were harbored from November until mid-April due to fog and stormy weather. Therefore, Memphis would have only been viable as a harbor for seafaring ships from July through October, thus significantly limiting their usage (Bietak 2008a: 112, n. 4; Bietak 2010b: 20-21), whereas Tell el-Dab'a is ideally situated for military incursions into and trade with the Near East (Forstner-Müller 2010: 121).
narrow staircase. Both entrances had washing areas with stone basins, which indicates that it was essential to bathe prior to entering the building (Bietak 2005a: 76). Palace G had a square central courtyard surrounded by columns providing access to a columned vestibule via a columned portico (Bietak 2005a: 76; Bietak 2010a: 22). Behind the vestibule the palace splits into two parts. There was a large columned hall on the eastern side, identified as the throne room, which is an interesting point of context because then the throne room would have been located on the western, or lesser, side of the residential portion (Bietak 2005a: 76; Bietak 2010a: 22). To explain this placement of the throne room as a subsidiary element, the rooms on the western side of the building have been identified as a tripartite temple, probably dedicated to Amun or Seth, with indirect access to the shrine from one of the three rooms (Bietak 2005a: 76; Bietak 2010a: 22). Behind the throne room and temple are at least two private apartments, each with a reception room and a bedroom. Toilets have also been identified from sediments and a toilet basin (Beitak 2005: 76). Although the presence of a temple within a palace does not conform to the Egyptian arrangement of a temple and palace compound, this composition may be an influence from the Near East where the god lived with the king (Bietak 2010b: 13 and n. 39). This palace precinct is a replica of the main royal residence at Memphis and therefore would possibly have served as the residence of the Superintendent of the naval base of Perunefer, a man identified as Qenamun, the foster-brother of Amenhotep II (Bietak 2010a: 23).

During this time Palace J was replaced by a workshop with storerooms and offices. To the north of Palace F another workshop complex was added. These workshops served multifunctional purposes producing various products including furniture, projectiles for slingshots, and objects for use in the palace, which included metal objects (Bietak 2010a:}
Tell el-Dab'a was abandoned after the reign of Amenhotep II, but may have been briefly re-occupied as a fortress during the Amarna Period. Palace J (Fig. 14) is located to the south of Palace G and resembles a smaller version of it. This building does not have any areas which could have been a shrine, and the throne room was located along the central axis with a side entrance most likely leading into a single private apartment (Bietak 2005a: 76; Bietak 2010a: 22).

Palace F (Fig. 15) has a different plan from Palaces G and J. Its entrance ramp led into a rectangular two-columned courtyard, which provided access to central square courtyard surrounded by columns (Bietak 2005a: 76-77; Bietak 2010a: 22). The room to the south of the courtyard may have been a throne room with a side room to the east and a dressing room to the west (Bietak 2005a: 77; Bietak 2010a: 22). According to this reconstruction, there would have been no place for a private apartment which could be why there is not a separate side entrance (Bietak 2005a: 77; Bietak 2010a: 22). Given that this palace does not appear to have a clearly defined private area, it may serve as a good example of a temple palace at Tell el-Dab'a (Bietak 2005a: 77; Bietak 2010b: 15). However, Emery suggests that based on non-royal Egyptian domestic architecture, Palace F may have provided a primarily residential purpose, with Palace G serving a ceremonial one (Emery 2014: 122). To the south of Palace F were storehouses with faience objects and pottery, which emphasized the trading connections between Egypt, Cyprus, and the Levant (Bietak 2005a: 75).

An interesting decorative element survived from Palace F. Thousands of fragments of painted wall plaster, decorated in Minoan style and technique, were found at the base of the entrance ramp and landing (Bietak 2005a: 77; Bietak et al. 2007: 26-40). The plaster appears
to have fallen off the walls shortly after its application since hard lime plaster that was
traditionally used in Aegean wall decoration does not adhere well to the mud-brick walls
used in Egyptian architecture (Bietak 2005a: 78; Bietak 2008b: 131). The plaster was made
in the Aegean-style which consisted of lime plaster mixed with murex shells, then
compressed, and the surface flattened by a stone float. The colors would have been applied
while the surface was still damp (Bietak 2010b: 15). Basins for making the hard lime plaster
were also found near Palace F (Bietak 2005a: 79). These Minoan-style frescoes consist of
animals, both real and mythical, acrobatics, and maze patterns. The throne room probably
housed many of the scenes that were represented in the disposal heaps. These scenes
included griffins and lions, which are reminiscent of the throne rooms at Knossos and Pylos,
and floors painted with a maze border (Figs. 16-17) (Bietak 2005a: 78; Bietak et al. 2007: 26-
40). Additional frescos that may have been in the throne room include scenes of lions or
leopards hunting hoofed animals (Bietak 2005a: 79; Bietak et al. 2007: 26-40; Bietak 2013:
194, fig. 9). Frescoes depicting bull-leaping scenes probably came from the central courtyard
or northern entrance of Palace F (Fig. 18) (Bietak et al. 2007: 26-40; Bietak 2010a: 22) along
with hunting scenes and life-size figures (Bietak 2005a: 79; Bietak et al. 2007: 26-40).

Palace G was also decorated in the Minoan style as evidenced by fragments found at
a side entrance of the enclosure wall leading to the base of the ramp. These fragments
included ornamental paintings and a life-size figure of a women wearing a flounced skirt
typical of Minoan-style dress (Bietak 2005a: 79; Bietak et al. 2007: 26-40; Bietak 2013: 196,
fig. 11). Other fragments found near the palace showed a large-scale white figure wearing
jewelry, a yellow horn, a divine icon, and mixed Egyptian and Minoan motifs (Bietak 2005a:
79; Bietak et al. 2007: 26-40; Bietak 2010b: 16, fig. 2.4).
Other Minoan-style paintings have been found outside the Aegean. Frescos have also been identified at Alalakh and Kabri in the Levant, and in the palace at Qatna in Syria (Bietak 2005a: 79). Artists were probably sent to these locations from Crete in order to decorate the walls in the Minoan style, thus increasing the prestige of Knossos. However, the paintings from Tell el-Dab'a might have been done under different circumstances. During the Eighteenth Dynasty, when Palaces G, F, and J would have been in use, there was a direct relationship between the Egyptian and Minoan courts (Bietak 2005a: 80; Bietak 2008b: 131). A political marriage may have been the reason for the decorations found in Palace F. After this marriage, the palace would have been decorated with imagery designated for Minoan royalty such as the griffins representing the Minoan Great Goddess, Mistress of Animals, flanking the throne (Bietak 2008b: 131). The parallels between the throne room of Palace F at Tell el-Dab'a and that of the one at Knossos must certainly suggest that both palaces were intended to serve as the residence of a queen (Bietak 2008b: 131). Egyptian artists were probably also taught the techniques by the Minoan artists visiting at Tell el-Dab'a since Minoan-style paintings have also been found in Theban tombs of nobles including Senenmut (TT71) (Bietak 2013: 197, fig. 13) and Qenamun (TT162) (Bietak 2005a: 80; Bietak 2010b: 12). This painting style is also evidenced at other Dynasty Eighteen palaces including those at Malqata and Amarna.

I.C. Malqata

The Palace Complex of Amenhotep III at Malqata (Figs. 19-22) is located on the western bank of the Nile across from Luxor Temple. This complex measures approximately 226,000 m² and consisted of palaces, villas, houses, workshops, kitchens, serving areas, and
an Amun Temple all surrounded by a mud-brick enclosure wall (Koltsida 2007: 1011). The
palace-city appears to have been in use for at least the last decade of Amenhotep III's reign
(Hayes 1951a: 36-37; Kemp and O'Connor 1974: 130), and went through several rebuilding
stages, which included the addition of structures and reorienting the complex (Hayes 1951:
35-37; Lacovara 1993: 43; Lacovara 2009: 84; Emery 2014: 143-341). After the initial
construction of the King's Palace and the enclosure wall, the complex was shifted to the east
in order to align with the Amun Temple and North Palace (Kemp and O'Connor 1974: 118;
Emery 2014: 143-341).

Since this palace complex may have served the purpose of a true royal residence,
religious ceremonies would have also taken place there such as Amenhotep III's sed-festivals
(Kemp 1974: 13). The occasion of Amenhotep's sed-festivals are attested throughout Egypt
by priests and officials (Kemp and O'Connor 1974: 130; Emery 2014: 72-104). One of the
most prominent features of the Malqata palace complex is the Birket Habu, the function of
which has been debated by scholars. Some believe it was a pleasure lake for Queen Tiye
(Winlock 1912: 184; Lythgoe 1918: 4), while others argue that it served as a harbor to supply
the palace complex (Kemp and O'Connor 1974: 130; Koltsida 2007: 1011). The artificial
lake between Palaces G, F, and J at Tell el-Dab'a may be a predecessor to the Birket Habu,
which could also support its use as a harbor instead of a pleasure lake.9

9 A geophysical survey is currently being conducted by The Theban Harbours and Waterscapes Survey
(THaWS) under the direction of Angus Graham from University College, London. The aim of this project is to
reconstruct and interpret landscapes and waterways in the Theban region over the last five millennia (Graham
53), which could provide insight into the function of artificial lakes such as the Birket Habu at Malqata.
I.C.1. The King's Palace

The King's Palace (Figs. 23-24) measures approximately 50 x 125 m and contains multi-columned halls, throne rooms with remaining impressions of the columns and dais for the throne, and private apartments (O'Connor 1996: 85; Emery 2014: 172-199). It is at the King's Palace where the pharaoh would have consulted with officials and held state functions such as receiving tribute (Winlock 1912: 185-6; Kemp and O'Connor 1974: 130; Emery 2014: 172-199). The palace was entered through gateways located on the western, eastern, and northern sides of the enclosure wall (Winlock 1912: 185; Emery 2014: 172-199). Once through the western side of the enclosure wall, the interior of the palace was accessed by means of a ramp which connected to off-axis corridors and courts. It was through these corridors and courts that the interior of the palace could be gained (Lacovara 2009: 85; Emery 2014: 172-199). The Metropolitan Museum of Art team discovered at least nine additional rooms with staircases located around the periphery of the building. The location and design of these rooms indicates they served as additional storage areas for the palace (Lacovara 2009: 87; Emery 2014: 172-199). The King's Palace was almost as large as the Ramesseum (see below), and was the primary central building at the southern portion of the site (O'Connor 1996: 84).

At the northern end of the King's Palace (Fig. 24) three columned audience halls (1, 2, 3) were located, each of which had the remains of a throne dais. The largest audience hall (1) was entered by a wide corridor from the west, which was also the entrance to the palace (Smith 1998: 163; Emery 2014: 172-199). The smallest audience hall (3) had a decorated brick throne dais with painted figures of bound captives on the floor of the dais and the steps, and was surmounted by a canopy. To the south of the second audience hall (2) was a corridor
leading to a columned vestibule that provided access to the great hall (4). On either side of the great hall (4) were four suites, eight in total, for female members of the royal family (Fig. 25). This area comprised eight clusters of five-room suites. These room clusters consisted of an entry with two columns (N^{1-8}) that provided access to a central living room with columns and a dais (K^{1-8}). The living room had two doorways, one leading into the bedroom (P^{1-8}) and the other into a service room (L^{1-8}). These service rooms had a doorway leading into a long, narrow room (M^{1-8}) that has been identified as a closet (O'Connor 2010: 55-80; Emery 2014: 172-199, fig. 87). At the southern end of the King's Palace, connected by the great hall (4) was a throne room (5) with the king's private apartments behind it. The private apartments included a bedroom (8), dressing room (7), and a washing room (6). The placement of the king's private apartments at the southern end of the great hall (4) provided the king easy access to the suites for the royal women.10

The decorative program in the King's Palace was truly remarkable due to its state of preservation and subject matter. The walls, ceilings, and floors were all plastered and painted (Smith 1998: 163; Emery 2014: 172-199). Remains of floor paintings were found in the small audience hall (3) and in the great hall (4) leading to the suites for the royal women. The primary elements of the composition were a central pool surrounded by a wide border with plants and water-birds (Smith 1998: 163; Emery 2014: 172-199). Decoration in the storerooms of the women's apartments included images of calves leaping in papyrus marshes and stands of bowls for food (Figs. 26-27). The king's bedroom (8) had a ceiling decorated with flying vultures within a border of rosettes and a checkered pattern (Fig. 28). Between the wings of the vultures and the rosettes were Amenhotep III's names and titles (Hayes 1951: 236; Smith 1998: 166; Emery 2014: 172-199). The lower portion of the walls were

10 For an alternate theory on the use of these rooms, see Arnold 2002: 271-298.
adorned with painted false-door panels and a series of large-scale painted *ankh*-signs and *s3*-signs over *nb*-signs (Figs. 29-30). These panels and amuletic signs were surmounted by paired figures of the god Bes (Lacovara 1993: 48; Smith 1998: 164-166; Emery 2014: 172-199). The ceiling designs in the king's dressing room consisted of an interweaving spiral pattern with cows' heads and rosettes (Fig. 31) while the ceilings of the women's apartments were adorned with flying pigeons surrounded by a border accented by rosettes (Fig. 32) (Nishimoto 1992: 69-80; Smith 1998: 164-168; Emery 2014: 172-199).

**I.C.2. House West 1**

Opposite the entrance ramp, on the northwest side of the King's Palace, is an area with a large building presently known as House West 1 (Ho. W1) (Fig. 22) (Lacovara 1993: 49; Lacovara 2009: 89; Emery 2014: 200-203). This house is arranged around a large central hall with an off-axis entrance that is a connection to the King's Palace. The main entrance was through a long hallway into the main hallway which led into two private room complexes. To the southwest of the main hall are three large rooms, one which contained an altar (Lacovara 1993: 49; Lacovara 2009: 89; Emery 2014: 200-203). Although Ho. W1 appears to be a private house in its design, its proximity to the King's Palace and its size indicate it may be associated with the King's Palace (see discussion below under North Riverside Palace).
I.C.3. South Palace

The South Palace (Fig. 33), also known as the palace of Queen Tiye, was first excavated by the Metropolitan Museum of Art during their 1914-1915 field season. This building is located in the southern portion of the site, hence its name, is rectangular in shape, and shows evidence of residential activity. The main portion of the building measures ca. 38.8 m x 72.4 m, and the secondary portion of the building measures ca. 16.6 m x 31.6 m. The western end of the building is divided into two approximately equal-sized rooms (B and C). East of these rooms are two columned halls (D and E) that take up the width of the building, with the exception of a narrow corridor (F). Piers were found around the four sides of halls D and E which supported shelves upon which the inhabitants of the palace would have stored extra furniture, chests, and baskets of clothing (Evelyn-White 1915: 254; Emery 2014: 257-265). To the south of halls D and E are three chambers (G, H, and I) which were part of the private apartments. Room G is a bedroom as evidenced by a recess with a slightly raised floor at the southern portion of the room where a bed would most certainly have been placed. Room H most likely served as a dressing room given its proximity to the bedroom. The third room, I, is a large bathroom for washing (Evelyn-White 1915: 255; Emery 2014: 257-265). In the northern wall of Room I is a doorway leading to a large columned hall, J. Opposite the doorway on the northern wall of Room J is a throne dais with four steps. The western wall of Room J has a doorway opening to a pair of two-columned rooms (K and L) which provided access to the bedroom and dressing room. Four five-roomed dwellings (A-A"") were connected to the South Palace by two narrow, parallel passages (Evelyn-White 1915: 254; Emery 2014: 257-265). These rooms probably functioned as servants' or retainers' quarters. To the west of the South Palace was an area with storehouses and workshops. This
area also had a group of broken wine jars and various other types of pottery as well as a
dyer's vat and molds for beads, pendants, and other ornaments (Evelyn-White 1915: 254;
Hayes 1951: 163; Emery 2014: 257-265). The arrangement of these rooms is similar to the
royal apartments of the King's Palace at this site suggesting that the person who occupied this
area of the palace complex, presumably Queen Tiye, held a status nearly equal to that of the
king (Evelyn-White 1915: 256; Hayes 1951: 163). This building has been assigned to Queen
Tiye due to the use of mud-bricks stamped with her cartouche in its construction (Hayes
1951: 35; Smith 1998: 162; Emery 2014: 257). The South Palace may have also served as an
administrative building housing the offices of a courtier who would have been associated
with the royal residence (Emery 2014: 264-265).

The Palace Complex of Amenhotep III, possessing residential, administrative, and
ceremonial elements, conforms to the idea and definition of an ancient Egyptian palatial
complex overall (Emery 2014: 344-351). It also fits within the context of a heb-sed Festival
palace with the presence of the Audience Pavilion, Amun Temple, its inscriptive evidence,
and its correlation with other heb-sed Festival sites at Saqqara and Soleb in Nubia (Emery

I.D. Amarna

The site of Amarna (Figs. 34-36), ancient Akhetaten meaning "Horizon of the Aten",
was established during the reign of Akhenaten (1388-1348 BC). It is located 408 km north of
Thebes and it served as the new capital of Egypt during the Amarna Period. Amarna is a
unique site since it was established by Akhenaten during his reign and was abandoned after
his death. This is the only site known in Egypt that lacks an occupation history spanning
multiple kings and decades or centuries, thereby offering a true picture of form and function in an examination of ancient Egyptian palaces. This site has been under examination since the late nineteenth century and continues to be excavated under the direction of Barry Kemp from the McDonald Institute for Archaeological Research.

I.D.1. Great Palace

The Great Palace at Amarna (Figs. 37-38), originally excavated by William Matthew Flinders Petrie in 1891, is the largest residential building located to the west of the Sikket es-Sultan, the main axis of the site. It stretches over 15,000 m² and is surrounded by a solid brick wall; however, only half of the original building is currently visible (Pendlebury 1951: 33; Lacovara 2009: 91; Kemp 2012: 137-146). Based on the size of the rooms and the rest of the building that remains, the Great Palace would have been rectangular in shape measuring at least 440 m x 250 m with a stone construction at its center measuring 282 m x 174 m (Kemp 2012: 137) when it was originally constructed. All of the preserved entrances are located on the east side of the Palace, yet it is unlikely that these were the only entrances in ancient times. The main entrance would have been on the northern end of the building where the foundations were dug deeper and the trenches for it were filled with stone that included remnant column bases (Kemp 2012: 138).

A large courtyard, Pendlebury's Broad Hall, is located behind the northern façade and measures nearly 160m² (Kemp 2012: 138). This courtyard contains two rows of foundations, one on the eastern and the other on the southern side, composed of gypsum concrete. The eastern foundations are marked with rectangles that indicate there were stone statue bases, which is supported by the presence of thousands of red granite statue fragments found in the
A large hypostyle hall, Pendlebury's Coronation Hall, was a later addition to the Great Palace. This hall is flanked by six narrow pillared halls, four on the northern side and two on the southern (Lacovara 2009: 92). The entrance to the hypostyle hall was cut through the south wall of the Palace. On either side of the court are two long rooms with whitewashed piers and walls (Pendlebury 1951: 60). The main courtyard of the hypostyle hall was entered by a door in the middle of the north side of the entrance wall. Traces of the original stone threshold are evident below a later blocking of brick. An additional entrance is located halfway along the west side and was approached by a ramp (Pendlebury 1951: 60). Plaster painted with motifs of vines and grapes was also found in the main hall, but it is uncertain whether it came from the ceiling or the columns which held it up. Some of the bricks were stamped with the name of Smenkhare, the presumed successor to Akhenaten, thereby causing archaeologists to attribute this portion of the building to his reign. However, Lacovara believes this courtyard was part of the original palace construction, and would have functioned in a manner similar to the Festival Hall at Malqata (Lacovara 2009: 92).

The private quarters and the hypostyle hall are constructed of mud-brick whereas the rest of the state apartments are built of stone. The private quarters are located along the eastern length of the Great Palace to the south of the offices and storerooms and to the north of the hypostyle hall. This area is also bordered on the eastern side by the brick enclosure wall of the building and on the west by the large courtyard with the statues of the royal
family (Pendlebury 1951: 34). The state apartments are located in the central portion of the Palace, but they are nearly impossible to reconstruct at this point due to extensive destruction.

To the south of the servants' quarters are the apartments for the female members of the royal family, divided into northern (larger) and southern (smaller) sections, which is reminiscent of similar suites at Malqata (see above). The entire quarter was built two and a half meters within the main east wall of the Palace, which left a passage that could be patrolled (Pendlebury 1951: 38). Fragments of paintings from floors and walls were found in this area of the palace, and some of the original decoration was discovered on the east wall (Weatherhead 1994: 198). The sequence of the scenes from this wall include two male figures, one seated and the other standing, who are talking to one another (Fig. 39). The next scenes portray three figures, which have been described as a steward with a baton and two servants (Fig. 40) (Weatherhead 1994: 200). The vignette resumes after a large, unmeasured space and was described by Petrie as the open front door with a servant sweeping the floor followed by two servants, one possibly being the palace chef, carrying food, and a large bowl of grapes with a porter standing next to them. A messenger is informing the porter that the owner of the house is returning as evidenced by the hooves of horses pulling a chariot on the south wall (Fig. 41) (Petrie 1894: 14). It is unclear whether or not Petrie thought the owner returning home was Akhenaten. This premise is unlikely because the figures in the scene display a feeling of informality, and a royal chariot would have been depicted as much larger (Weatherhead 1994: 201).

As seen in the northern area, the southern quarter has a garden court running north and south. To the east of the garden lies a court housing an oblong tank that is lined with
plaster. In the middle of the tank is a stone slab. This tank may have served as an ornamental pond (Pendlebury 1951: 44). To the north and south of this court are colonnades which are similar to those seen in the northern area. The private quarters, servants' quarters, apartments designated for female members of the royal family, and storerooms comprise the line of mud-brick built private buildings. These sections appear to have been constructed in their entirety prior to the state apartments located to the west.

Painted pavements were preserved in the Main Hall, Room E, and Room F of the women's quarters (Fig. 42). The Main Hall had two rows of duck and marsh scenes that were bordered by ceremonial bouquets and unguent stands (Weatherhead 1992: 185). The room also had two ponds that were located on either side of a pathway depicting bound captives. In Room E the eastern and western halves of the pavement were separated by a central path exhibiting representations of painted bound captives. There were also rows of columns with a rectangular pond teeming with fish and plant life (Weatherhead 1992: 183, 188). The ponds were bordered with repeating scenes of flying ducks, marsh plants, and leaping calves. Surrounding these scenes was an outer border composed of altering ceremonial bouquets and offering stands possibly holding unguent cones (Weatherhead 1992: 183). The painted pavements found in Room F were similar to those found in Room E but less well preserved (Fig. 43). The painted pavements found in the Main Hall, Room E, and Room F allude to abundance and fecundity in the marsh scenes (O'Connor 1989: 78; Weatherhead 1992: 190) and supremacy over foreigners in the bound captives scenes (Weatherhead 1992: 190), both of which are standard imagery associated with the royal family. Similar scenes were also found in the King's Palace at Malqata.
I.D.2. The King's House

Connected to the Great Palace via a bridge that spanned the Royal Road is the building designated as the King's House (Fig. 44). It has been classified as a palace even though it is relatively small by comparison to other palaces. The building is essentially square in plan, measuring ca. 94.6 m x 109.6 m, with an off-axis entrance, a terrace, a central hall, private apartments, a court with an altar, storerooms, servants' quarters, and a series of residential suites, possibly for the royal women (Lacovara 2009: 93).

A painted scene of the royal family relaxing on cushions, now in the Ashmolean Museum, was found by Petrie in the King's House (Fig. 45). Other scenes from the walls include the legs of kneeling captives, an Asiatic and a Nubian, with a bowl on a stand between them, the legs of other figures, a flight of stairs, decorated chests, and groups of faces (Petrie 1894: 15; Weatherhead 1995: 98). A dado was also found that was composed of plant panels and striped panels (Weatherhead 1992: 107-111). Plant panels and striped panels were also found at the palace of Merenptah at Memphis and in the King's House at Malqata.

Although these paintings show the royal family and kneeling captives, iconography typically associated with the royal family as in the Great Palace, Kemp has suggested that this building probably served as the house of the vizier rather than the king (Kemp 2012: 134). However, Kate Spence has argued that the King's House fits into the category of a non-axial palace building, which she based on the approach to the throne room of the King's House (Spence 2009: 176). Since the throne room is not accessible directly from the main columned hall and the entrance to the building as a whole is not a direct one, this type of structure is less formal than its axial counterpart given that there is less emphasis placed on the throne room and its approach (Spence 2009: 176). It is also possible that the layout and
restricted entrance of the King's House could be an example of a type of building used by the king's courtiers and high officials to hold a private meeting with the king in a more secluded environment. The indirect entrance to the throne room may also support this interpretation since those who gained access to the throne room would have to have known the route to get there (Spence 2009: 177).

I.D.3. North Palace

The North Palace at Amarna (Figs. 46-47) was first excavated in the 1920s by F.G. Newton and Thomas Whittemore and in the 1990s by Kemp and Spence. The building, comprised of mud-brick and measuring 148 m x 115 m, is located between the North Suburb and the North City. It faces west toward the river and is perpendicular to the Royal Road (Kemp 2012: 146). This building has been suggested as being the residence of Meritaten, the eldest daughter of Akhenaten (Kemp 1989: 279; Kemp 2012: 147). Inscriptions were found throughout the North Palace bearing her name. Some of these inscriptions appear to have been carved on top of existing ones (Kemp 2012: 308, n. 20). It has been claimed that the name that was carved over was Kiya (Reeves 1988: 91-101), which would have given her ownership of the North Palace over Meritaten. Although there is evidence for re-carving of the names, possibly from Kiya to Meritaten, it is unlikely that it was due to a power struggle among the royal women (Reeves 1988: 91-101; Kemp 2012: 308, n. 20).

The primary entrance to this palace is located on the western, river, side and leads into a large courtyard, now denoted as the Entrance Court (Newton 1924: 294; Spence 1999: 14). To the northern and southern sides of this courtyard are large doorways opening to additional courtyards. The courtyard on the northern side, the Altar Court, has nine chambers
each on its eastern and western sides as well as a staircase on either side that ascended to the roof (Newton 1924: 295). One of the jambs on the western side bears the name of Meritaten (Whittemore 1926: 4; Kemp 2012: 147, fig. 4.22). Along the rear wall of this room are a set of three stone platforms, each reached via a small staircase, with the largest platform being in the center (Figs. 48-49). Foundation blocks for two rows of offering tables still remain between the smaller platforms and the large platform. The larger platform may have been a roofed throne dais, perhaps for Meritaten herself (Kemp 2012: 149). When the floor of the Altar Court was excavated, Kemp and his team found faience moulds, fragments of bowls with pigment, and pottery (Kemp 1998: 15).

The southern side of the first large courtyard has a doorway leading to another courtyard, the Southwest Court. This element of the overall space has a mirrored design. On either side of the doorway are six rectangular chambers, twelve in total, lacking entrances. In front of these chambers is a large room with a small dividing wall and four rectangular rooms at the rear. Each of these room complexes is surrounded by 23 columns. Along the southern wall of the Southwest Court is another room complex that includes a large rectangular room at the front and three rooms, consisting of two smaller rooms flanking a larger room, behind it. A bed niche was found in the easternmost room of this rear room complex (Kemp 1999: 17) suggesting its use as a bedroom.

The entrances to the Altar Court and the Southwest Court are built of stone and are similar to the entrances along the eastern wall of the Entrance Court, which all were flanked by what might be statue bases (Spence 1999: 16). The foundations of the Altar Court and the Southwest Court exhibit different methods of construction, but they are identical in plan.
This indicates that the mud-brick structures found in the Southwest Court were similar in status to the stone structures in the Altar Court (Spence 1999: 16).

Along the eastern wall of the Entrance Courtyard are two doorways leading into the Central Courtyard, which has a large basin in the center. Between these doorways are the remains of a large stone structure built into the wall (Spence 1999: 14). Fragments of gold leaf and paint were found at the base of this structure, which indicates it was an ornate and gilded element of the North Palace design. Brown quartzite chippings were also found in the Central Courtyard, which suggest that there were statues flanking its entrance (Kemp 1998: 15; Spence 1999: 15-16). It has also been suggested that this was the location of a Window of Appearance (Whittemore 1926: 4; Spence 1999: 15; Kemp 2012: 147). The basin at the center of the Central Courtyard may have been for a pool (Newton 1924: 295), or it may have been placed here to supply water for the complex (Whittemore 1926: 5).

To the north of the Central Courtyard is a building that was subdivided into three smaller sections, each with a columned entrance, a doorway in the center of the northern wall leading into an open courtyard, and another doorway at the opposite northern wall leading into a columned courtyard. The easternmost room complex held rows of limestone feeding troughs for animals along the walls and tethering stones. The feeding troughs were decorated with images of cattle, ibexes, and antelopes (Lacovara 2009: 94; Kemp 2012: 149). The two room complexes to the west of this one did not have the feeding troughs with tethering stones, but instead featured a continuous brick trough along the eastern wall. These sections were likely for the housing and feeding of birds (Kemp 2012: 150). Although it is possible that these same rooms were utilized for the housing and maintenance of livestock and fowl.
for consumption, it is also possible that they were designed as a metaphor for living within nature (Kemp 2012: 150).

The entire eastern end of the palace is occupied by the residential area. The double doorway used to enter the residential portion leads directly into a hypostyle hall. The arrangement of the columns here was probably to accommodate a clerestory wall with windows that would have lighted the hall, similar to the great hall of the Karnak temple (Newton 1924: 296). The areas surrounding this hypostyle hall were determined to be the throne room complex, which included storerooms, a throne room, bedrooms, bathrooms, staircases leading to the roof, and another Window of Appearance (Kemp 2012: 136). There were also additional accommodations presumably for palace attendants. In the northeastern portion of the building is the Garden Court, an enclosed area with painted walls. The scenes here show men feeding grain to fowl (Figs. 50-51). In the southern portion of the palace, Kemp and his team discovered kitchen areas as well as workshops (2012: 147). This building may have been constructed to serve as a winter palace because the cliffs shield it from the northern winds, and it is the warmest portion of the site (Newton 1924: 298).

This building does not possess characteristics that are typical of other royal residences. The section of the palace that can be classified as a palace is located in the eastern part of the building, which is arranged around two large central courts that have smaller columned halls leading to the throne room (Lacovara 1997: 30). The building shows more similarities with a temple palace and was therefore probably not a proper residential palace. There is a lack of true domestic features and Alexander Badawy has commented that this palace is similar to the Meru-Aten in the southern portion of the city, which could
indicate that the building had more of a religious rather than purely residential function (Badawy 1968: 92).

I.D.4. North Riverside Palace

The North Riverside Palace at Amarna (Fig. 52) has only been partially excavated and published. It is located beyond the northernmost boundary stela and was surrounded by an enclosure wall, which was 1.5 m thick and featured square towers on its outer face (Lacovara 2009: 95; Kemp 2012: 151-152). There was a 7 m wide space between the outer wall and an inner wall. It is uncertain what the length of this wall would have been as it was originally constructed, but it could have stretched up to 350 m and encompassed an area of approximately 5 hectares (Kemp 2012: 152-153). A gateway was found near to where the wall disappears below the cultivation. This gateway was 5 m wide and had a stone doorway and stone-lined niches on both sides. Fragments of painted plaster depicting scenes of a king, possibly Akhenaten's successor, were found here (Pendlebury 1931: 242; Kemp 2012: 153). The only portion of the building that survives is located at the northern end. Here there are buildings that may have been for storage as well as houses for servants or soldiers. This area was accessed by its own gateway in the double enclosure wall (Kemp 2012: 153).

On the opposite side of the Royal Road from the enclosure wall of the palace are residences, one of which (U25.11) (Fig. 53) is the largest private house found at Amarna. In addition to U25.11, the area across from the North Riverside Palace had a garden, lake, storerooms, a chapel, open courts, and a series of other houses possibly belonging to the clerks (Lacovara 2009: 95). This arrangement is similar to the Great Palace and the King's House in the central portion of the city. It suggests that a royal palace complex of the New
Kingdom was composed of two parts, "a large ceremonial palace built around a great hall
and, connected to it, a smaller structure modeled on a large private house that would have
been the actual residence of the king and the royal family" (Lacovara 2009: 95). The King's
Palace at Malqata and Ho. W1 also demonstrate this relationship (Lacovara 2009: 96).

Given that the North Riverside Palace was the first notable building that would have
been seen by any traveler approaching from the north by river, this structure may have served
as the actual private residence of the royal family and their army units (Kemp 1976a: 96;
Kemp 1989: 276; Kemp 2012: 151). The area was fortified enough to warrant sufficient
protection to the royal family. Also the houses and estates placed on the opposite side of the
enclosure wall could have been intended for palace officials (Kemp 1976a: 96; Lacovara
1993: 55-56). This would have allowed the royal family to have some privacy from those
officials and their state duties (Kemp 1976a: 99). If the North Riverside Palace did serve as
the main residence of Akhenaten and his family, then it is possible that the Great Palace may
have functioned as the official or temple palace (Kemp 1976a: 92; Lacovara 2009: 96).

I.E. Memphis

Official excavations of the palace of Merenptah at Memphis (Figs. 54-55) were first
undertaken by Clarence S. Fisher from 1915-1918. The palace was part of a larger complex
measuring over six hectares and was enclosed by brick walls. The building was constructed
of mud-brick with stone architectural elements (Fisher 1917: 213). The upper layers of the
mound have remains of Ptolemaic and Roman structures, which had been almost completely
removed by the time the excavation began (Fisher 1917: 213). This palace was part of a
larger complex that was enclosed by brick walls, and was built in a north to south orientation
to the east of four temple enclosures. Like the palace at Malqata, the palace of Merenptah has elaborate murals, stone architectural elements, and faience inlays (Fisher 1917: 211-237; Fisher 1921: 30-34; Fisher 1924: 93-100; O'Connor 1991: 175-178; Lacovara 2009: 90). It is unfortunate that with the exception of the throne room, these extensive decorative elements have not to date been widely published.

The palace of Merenptah does not appear to have been in use for a long period of time and it may may have been destroyed by a fire that occurred shortly after the king's death (Fisher 1917: 227; Fisher 1921: 30). Although only the lower parts of the mud-brick walls survived, Fisher was able to calculate the roof height of the building. He argued that the roof would have been flat and made of wood as seen at Malqata (Fisher 1917: 227; Fisher 1921: 31). Barrel vaulted roofs were also utilized in palatial architecture during the Ramesside period, as evidenced by the two palaces of Ramesses III at Medinet Habu (Hölscher 1941: 38-39, 46). The palace of Merenptah does however seem to have had a flat rather than vaulted roof because the larger halls (5, 7, 18, 20) had columns that were spaced at further intervals than those at Medinet Habu, and the stone beams necessary to carry the load of a barrel vault were absent at Memphis (O'Connor 1991: 175).

The northern end of the central court (19) had another large doorway leading into a smaller vestibule (20) with four decorated columns. In the debris around the door, the excavators uncovered fragments of a thick horizontal stone slab with an inscription of Merenptah along one side (Fisher 1917: 222). The slab was nearly equal to the thickness of the wall and stretched across the entire opening. Additionally, there is a small staircase (22) to the west of the smaller vestibule. Based on the position of the fragments and the presence of the staircase, Fisher concluded that these fragments were from a Window of Appearance
(Fisher 1917: 222-225), but the placement of a Window there is still debated. If this was indeed a Window of Appearance, it would have been unusually high since most of them are located on the first floor of a building (Hölscher 1941: 39; Pendlebury 1951: 87; Kemp 1976a: 81-82; O'Connor 1991: 176). When looking out from the proposed Window at Memphis, the king would have been viewing an inner court rather than an outer court as would be expected (O'Connor 1991: 176). Finally, the proposed Window of Appearance at Memphis would have been placed on the southern side of the building, whereas all the other known Windows are on the northern side of the buildings (O'Connor 1991: 176). Given these differences, it is unlikely that the remains found in court 19 were from a Window of Appearance.

The throne room (7) (Fig. 56) had six columns, portions of five of the six were in situ, that would have supported the roof or ceiling. The bases were made of a single limestone block with a horizontal band of inscriptions inlaid with faience (Fisher 1917: 216; Fisher 1921: 31-32). The columns had scenes of Merenptah slaying his enemies or making offerings to Ptah. As with the columns in room 19, the ones in the throne room also had papyriform capitals (Fisher 1921: 32). The hieroglyphs inscribed on the columns were inlaid with blue faience, and the walls were plastered and painted with bright colors enhancing the water lilies and papyrus plants on the lower portion of the walls signifying the unification of Upper and Lower Egypt (Fisher 1921: 32).

The dais (ca. 4.1 x 5 x 0.51 m) for the throne was located at the southern end of the hall facing the entrance from the vestibule (Fisher 1917: 218). The dais was placed between the two end columns and was approached by a ramp. On the dais itself are four large panels, each with a bound captive portraying a Nubian, a Libyan, a Keftiu, and, according to Fisher,
an unidentified captive who was probably an Asiatic (Fisher 1917: 218). These panels are surrounded by a border of *rekhyt*-birds and *nb*-signs indicating all nations. On the ramp leading up to the dais were six panels, each with a bound captive, totaling the ten nations Merenptah claimed to have subdued (Fisher 1917: 218).

While related and similar in design to Amenhotep III's palace at Malqata, Merenptah's palace at Memphis is missing the private apartments, which would have been placed around the throne room, halls, and storerooms (Lacovara 1993: 49-50; Lacovara 2009: 89). Both palaces have the throne room located at the south end of a hall, and the entrance to the palace is by means of an off-axis corridor. The palace of Merenptah is comparable in scale to the temple palaces of Ramesses II and III, and may have been functionally if not actually attached to the temple of Ptah since it was located at a right angle to the processional way of the temple (Stadelmann 1973: 235, n.81; O'Connor 1991: 178-179). However, both the temple of Ptah and the palace of Merenptah were each located within their own enclosure walls, thus completely separating the two buildings. The palace at Memphis has also been compared to the so-called "harem" suites in the Great Palace at Amarna since both flank a larger complex, are similar in scale, are located within a large walled enclosure, and are similar in plan (Uphill 1970: 155; O'Connor 1991: 180). Despite these varying suggestions, without the presence of larger private apartments for the king and his family, little can be concluded about the ultimate function of this building.

**I.F. Medinet el-Gurob**

The site of Medinet el-Gurob, ancient Mer-wer or Mi-wer, is located in the southern Faiyum area (Figs. 57-58). Medinet el-Gurob has been excavated by several archaeologists,
including Petrie (1890; 1891), William Leonard Stevenson Loat (1905), and Guy Brunton and Reginald Engelbach (1927). The site is currently being excavated by the University of Liverpool under the direction of Ian Shaw. Settlement remains have been identified at the site dating to the reign of Thutmose III, yet the height of Medinet el-Gurob appears to have been during the reign of Amenhotep III (Shaw 2010: 257; Shaw 2011: 454). A Ramesside temple was found to the east of the northern building, which suggests at least some level of occupation into the Ramesside period, specifically the reign of Ramesses V (Kemp 1978: 130; Shaw 2010: 256; Shaw 2011: 453).

At the main portion of the settlement, a building was found, which was originally identified as a temple by Petrie, yet when Ludwig Borchardt visited the site in 1905, he identified the building as the remains of a residence for royal women or "harem palace" (Kemp 1978: 127; Shaw 2010: 256; Shaw 2011: 455). Inscriptions on artifacts such as stelae and papyri from the site include titles of officials, including tax-collectors and scribes, associated with this type of residence. Although a similar type of building may have been present at Memphis, it has not survived (Reiser 1972: 28-31; Lorton 1974: 98-101; Nord 1975: 142-145; Kemp 1976b: 191-192; Shaw 2010: 256; Shaw 2011: 455).

The palace itself was comprised of two enclosures (Figs. 59-60), designated the North Palace area and the South Palace area (Shaw 2011: 456, fig. 1), each appearing to have been parts of a larger, square enclosure measuring ca. 240 x 225 m (Kemp 1978: 128). Both the North Palace area (B) and the South Palace area (C) comprised approximately one third of the larger overall complex with the former being in the center and the latter to the south. The northernmost third of the complex (A) does not appear to have had an enclosure wall, but it does have large, narrow spaces that could indicate the presence of storerooms (Kemp 1978:
The northern palace has a series of rooms with column bases and a wall dividing the building into two unequal halves. The southern palace also has a dividing wall and rooms, but no column bases (Kemp 1978: 129). Aside from the thick internal walls, column bases, and stone door frames, few internal architectural elements were found (Kemp 1978: 128-130). Although the degree of architectural preservation is limited at Medinet el-Gurob, there was a substantial amount of objects found at the site that indicate the production and consumption of goods including textiles, faience, glass, stone working, metal working, and wooden furniture (Shaw 2011: 457).

The pottery found at Medinet el-Gurob consisted of diagnostic sherds (e.g. rims, bases, handles, decorated body sherds, lids, and hemispherical bowls) of various types and fabrics (Shaw 2010: 259-260; Shaw 2011: 461-462). These sherds all dated to the Eighteenth and Nineteenth Dynasties; however, a few late Old Kingdom diagnostic sherds were also discovered, thus allowing for better interpretation of the pre-New Kingdom cemeteries (Shaw 2010: 259; Shaw 2012a: 51). Other than two sherds dating to the early Roman period, there remains no evidence of material from the later New Kingdom (Shaw 2010: 260; Shaw 2012a: 51). The pottery fabrics identified were of three primary categories: Nile silt, Egyptian marl ware, and imported ware that mainly consisted of Canaanite amphorae, Mycenaean pink ware, and two Cypriot sherds (Shaw 2010: 260; Shaw 2012a: 51; Shaw 2012b: 352). The majority of the pottery found has been identified as domestic wares, which would indicate a settlement site. Some of the small wares found at the site include a faience ring bezel with the prenomen of Tutankhamun, a ring bezel with the name of Ramesses, a ram pendant, a blue faience pendant of Bes or Beset, a wooden fragment of Taweret, several travertine vessel fragments, and several blue faience vessel fragments with traces of black decoration (Shaw
Lithics found at the site include ground stone tools (a pounder, abrader fragments, and a diorite pounder), pieces of un-worked exotic stone, and various chipped stone artifacts (Shaw 2010: 261).

Additionally, papyri found at Medinet el-Gurob records the collection of taxes for the palace (Griffith 1898: 91-98, passim; Gardiner 1953b: 145-149). The women were engaged in linen weaving, which is attested both archaeologically and textually (Shaw 2011: 455; Shaw 2012b: 352). Papyrus UCL 32795 from Medinet el-Gurob has reference to textiles including royal linen, headcloths, bag-tunics, and triangular cloth of the first quality (Gardiner 1948: 22-24; Shaw 2011: 455).

Administration of the palace at Medinet el-Gurob was undertaken by male officials that included tax collectors and scribes. The titles of these officials have been preserved on numerous surviving documents including stelae, an object from the palace, objects from the New Kingdom cemeteries, and papyri found at the site (Kemp 1978: 131; Shaw 2011: 455-456). The inhabitants of Medinet el-Gurob appear to have subsisted primarily on agriculture and fishing as evidenced by the amount of sickle handles, sickle flints, fragments of a wooden plough, fish hooks, net sinkers, and netting needles recovered from the site (Shaw 2011: 457).

This building seems to have functioned as a residence for the royal women, along with their families and attendants. It does not appear to have been an auxiliary building to the king’s residence but rather served as a self-sufficient residence unto itself (Kemp 1978: 132; Shaw 2011: 455).
I.G. Temple Palaces

I.G.1. Ay and Horemheb

The Mortuary Temple of Ay and Horemheb (Figs. 61-62), located just north of the Mortuary Temple of Ramesses III at Medinet Habu on the western bank of the Nile at Thebes, had a palace associated with it. The palace was built of mud-brick with oval and rectangular stamps of Ay (Hölscher 1939: 81). The exterior walls were plastered and whitewashed. Only the foundations of the palace remain, yet the layout can still be determined. The building is unattached to the Mortuary Temple and stands between the third and fourth pylons of the temple (Hölscher 1939: 81). It is square in shape, measuring 21.6 x 22 m, and has only a few rooms. The largest room of this palace is a broad hall which extends across the northern portion of the building. Two narrow vestibules, almost equal in width, are located on either side of this hall (Hölscher 1939: 81). To the south of the broad hall is the throne room. On the western side of the throne room is a small room with two columns, and on the eastern side of the throne room are two narrow rooms. The first of these narrow rooms may have had stairs leading to the roof, and the other may have been a bathroom (Hölscher 1939: 81).

I.G.2. Seti I

The Mortuary Temple of Seti I (Fig. 63), located in the northern portion of the Theban necropolis across the Nile from the temples at Karnak, is one of the best preserved mortuary temples in western Thebes. The foundations of the palace associated with the Mortuary Temple of Seti I were constructed completely of mud-brick with the exception of the facade which was constructed entirely of limestone (Stadelmann 1991: 254). The
structure and dimensions were copied in the palace of Ramesses II (Ramesseum) and the first palace of Ramesses III at Medinet Habu (Stadelmann 1991: 254; Stadelmann 1994: 311). Unlike the palaces of the Ramesseum and Medinet Habu, the facade and portico of the palace of Seti I at Thebes were not connected to the two pylons of the temple. Entrances to the building are located on both sides of the Window of Appearance which has reliefs of foreign offering bearers below it (Stadelmann 1991: 254).

I.G.3. Ramesses II

The Ramesseum (Figs. 64-65) is the mortuary temple of Ramesses II, which is also located on the western bank of the Nile across the river from the temples at Karnak. As with the Mortuary Temples of Ay/Horemheb and Seti I, the Ramesseum has a palace associated with it; the plan of which is again similar to that of the First Palace of Ramesses III (Hölscher 1941: 77). Fronting the first court of the temple was the palace portico. Behind the portico was the great hall containing sixteen columns rather twelve as seen at Medinet Habu. Also in this hall are the remains of the staircase leading to the Window of Appearances (Hölscher 1941: 77). Behind the great hall is the throne room that had four columns and a raised dais that, according to Hölscher, had a double false door behind it (Hölscher 1941: 77). Rooms at the rear of the palace follow a residential layout consisting of an entrance corridor leading into a small room that connected to the primary living area and provided access to three subsidiary chambers.
I.G.4. Merenptah

In addition to his palace at Memphis, Merenptah also constructed a House of a Million Years at Qurna (Fig. 66), located south of the Ramesseum, and originally excavated and planned by Petrie in 1896 (Petrie 1987). The original plan was altered during a second building phase. The earlier palace (A) was replaced by a larger palace (B) through the expansion of the eastern end by 4.2 m (Jaritz 1996: 99). The foundations and walls of the first palace were demolished, reinforced, or reshaped. For example, the mud-brick front wall was replaced by a sandstone front wall and a portico was added to that (Jaritz 1996: 99). As with other Ramesside period mortuary temples, such as those built by Ramesses III at Medinet Habu, the palace was attached to the first courtyard.

Merenptah's temple palace at Qurna and his palace at Memphis both have the forecourt in the same position, but the mortuary temple has a Window of Appearance where the reception hall would have been placed (Jaritz 1996: 102). There are no remains to a staircase for the Window of Appearances which would indicate that the floor level was raised to 1.5 m during the Palace B modifications. Palace A does not appear to have had a significantly raised floor, in comparison to the first courtyard, as evidenced by a disturbance discovered that measured 2.5 m in length and 0.5-0.8 m in height, which suggests that a short staircase leading to the Window had been dismantled (Jaritz 1996: 102).

The overall plan of both palaces of Merenptah have the same layout. Both buildings have an open courtyard, public sectors including a reception hall and throne room, and private areas such as a bedroom, bathroom, and secondary rooms (Jaritz 1996: 102). Past the portico, entrance to the palace is through two vestibules, with inclined floors, which opened to the throne room and Window of Appearances. The private areas of the palace are
positioned against the southern enclosure wall, thereby omitting the separate suites for the royal women (Jaritz 1996: 102). Differing from the palace at Memphis, the private sector of the House of a Million Years of Merenptah was arranged around the throne room rather than a corridor. The bathroom and dressing room in both Palace A and B were in the eastern annex of the throne room (Jaritz 1996: 103).

I.G.5. Ramesses III

Ramesses III constructed two palaces at Medinet Habu, both of which were connected directly to the south wall of his Mortuary Temple, located on the western bank of Thebes. The first palace at Medinet Habu was rebuilt and is now referred to as the second palace of Ramesses III. It is the only structure within the complex that was joined directly to the temple, which indicates the close relationship between the two buildings (Hölscher 1941: 37). The palace extends from the temple to the inner enclosure wall. It is square in plan and, with the exception of the wall that abuts the temple, is constructed of mud-brick (Hölscher 1941: 37).

The first palace (Fig. 67) was built at the same time as the temple because the south wall of the temple was planned as the façade for the palace with a columned portico and doorways decorated as a palace entrance (Hölscher 1941: 37). Prior to the construction of the second palace, the first palace was completely dismantled; however, some of the foundation courses remain from the first palace, so a ground plan can be deduced. According to Hölscher 's interpretation of these remains, this palace had a great central hall that was roofed
with five narrow barrel vaults (Hölscher 1941: 38). There were two side rooms, each one also roofed with a barrel vault.

The first palace has two rooms directly behind the palace façade that provided access to a large reception hall. Behind the reception hall was a smaller room that served as the throne room (Hölscher 1941: 45). A staircase in the reception room led to the Window of Appearances. To the west of the throne room was a large room with a niche that the excavators suggested may have been a bedroom. The rooms to the east of the throne room were most likely storerooms. At the far west end of the palace façade was a doorway that provided access to courtyards and rooms surrounding the main portion of the palace.

The second palace (Fig. 68) was not built directly on top of the foundations of the first palace; the floor was placed 25 cm higher and the foundations were not as deep (Hölscher 1941: 38). The ceiling of the second palace was also vaulted, but was higher than the ceiling of the first palace (Hölscher 1941: 39). The plan of the second palace differed from that of the first palace, which can be seen through the size of the rooms as well as the room arrangements. To the east and west of the throne room were side rooms with staircases that would have led to the roof. Directly behind the throne room is a vestibule located to the west of the main axis. This vestibule led to a room and a bathroom on the western side. On the eastern side was a throne room with two columns as well as an alabaster dais for the throne. This secondary throne room led into a sleeping chamber with an elevated recess for the bed (Hölscher 1941: 50). To the east and west of the main throne room were doorways that led to the harem suites located at the back of the palace. The separate rooms for the royal women consisted of both public and private areas, and were accessible only by the king through a two-columned courtyard located to the west of the throne room.
I.G.6. Temple Palaces in Context

As discussed in Chapter 1, temple palaces were elements of larger temple complexes, located on the south side of the main temple with axes oriented perpendicular to the main temple axis. They have a court with a colonnade imbedded inside the palace walls as well as a façade which fronted the court. They were also square or rectangular in form with a tripartite plan, which had a court followed by a hypostyle hall and a throne room (O'Connor 1991: 170-172; Pagliari 2011: 103-106; Pagliari 2012: 202-215; Emery 2014: 130-133). Unlike the residential palaces, which were primarily constructed of mud-brick with stone architectural elements, temple palaces were constructed of both stone and mud-brick. They are commonly attested during the later New Kingdom, but may have origins dating back to the Old Kingdom (Stadelmann 1994: 312).

The layout of temple palaces in Egypt follows a consistent pattern and organization of space, which include both residential and administrative architectural elements (Stadelmann 1973: 221-242). Given their attachment to the wall of a mortuary temple and their smaller scale, as compared to non-attached palaces, the viability of temple palaces as functional palace structures has been questioned (Hölscher 1941: 58-59; Stadelmann 1973: 221-242; Stadelmann 1994: 309-316; Stadelmann 1996: 225-230; Lacovara 1993: 57-59). However, temple palaces should not be discounted as serving a residential function, especially since the temples may have been designed to mimic elements of the royal palace. Smith has argued that the pylon, courtyard, portico, hypostyle halls, and temple sanctuary derive from the towered gateway, court, terraces, audience halls, and sleeping quarters of the palace (Smith 1972: 716). Additionally, the sacred lake and grove could correlate with the palace pool and garden, with the granaries, butcheries, storehouses, and offices equating with the palace's
domestic quarters (Smith 1972: 716). If this reconstruction of the influence and shared traits of temple and residential palaces is correct, the palaces associated with the royal mortuary temples would have been perceived as having a residential purpose whether it was for the living king coming to Thebes to participate in festivals, or, as Stadelmann has suggested, as a residence for the deceased king (Stadelmann 1994: 312; Stadelmann 1996: 228).

II. New Kingdom Nubia

During the New Kingdom, the Egyptians exercised their authority in Egypt and in Nubia as evidenced by Egyptian towns established within Nubia during this period. One of the most notable features of these town sites was the presence of an enclosure wall which fortified the town. While Egyptian New Kingdom remains have been found at a multitude of Nubian sites, of the New Kingdom Nubian sites currently under excavation, the fortified towns at Sai Island, Sesebi, and Amara West will be discussed below.

II.A. Sai Island

Sai Island is located approximately 180 km south of Wadi Halfa between the Second and Third Cataracts and measures 12 km x 5.5 km (Budka 2011: 23). Excavations were begun in 1954 under the direction of Jean Vercoutter and are currently conducted by a team from the University Charles-de-Gaulle-Lille 3 under the direction of Didier Devauchelle and Florence Doyen. There is evidence of occupation from the Prehistoric period through modern times. Although the Egyptians were aware of Sai Island from the Middle Kingdom, the site continued to be under the control of the king of Kerma until the New Kingdom. At the
beginning of Dynasty Eighteen, Sai Island became the first Egyptian outpost in Lower Nubia, and remained as such until Dynasty 20 (Doyen 2009: 17; Budka 2011: 24, 29). At the end of the New Kingdom the fortified town was abandoned by the Egyptians, yet there is evidence of occupation through the Christian period. The site was completely abandoned after Mohamad Ali and his army destroyed the fortress in 1820.

Lower Nubia was conquered by the Egyptians during the reign of Kamose; however, Sai Island continued as a Kerma community. This site was considered to be a threat to Egyptian control and expansion to the south (Doyen 2009: 17). At the beginning of Dynasty Eighteen, Ahmose established a fortified town on Sai Island, thereby ending Kerma control in this area. Aside from Kerma, Sai Island is the only other known large settlement site of the Kerma culture and has even been referred to as, "a sub-capital of the Kushites" (Budka 2011: 23).

A sandstone temple, Temple A, was discovered with the lower stone foundations preserved. It was dated to Year 25 of the reign of Thutmose III due to foundation deposits and a text dedicated by the viceroy Nehy; however, the foundation of the town itself has been dated to the earlier reigns of either Ahmose or Amenhotep I (Doyen 2009: 17). The attribution of Ahmose as the king who established the fortified town on Sai Island is based on a sandstone statue of the king. This statue shows Ahmose seated and wearing a *heb-sed* cloak, which could indicate that Amenhotep I dedicated the town to his late father (Budka 2011: 23-24). Since the only evidence to indicate that Ahmose was the founder of the town is a statue, many scholars have not accepted this as valid evidence; however, through the analysis of the ceramic corpus, Sai Island was certainly established during the early part of Dynasty Eighteen, likely by Ahmose (Budka 2011: 31; Budka and Doyen 2012/2013: 172).
The pharaonic town at Sai Island was established on the northeastern bank of the island, and it was surrounded by an enclosure wall that was reinforced with square brick towers. The town was orthogonally planned on a north-south axis with entrance gates at the western and southern enclosure walls and measures approximately 238 m x 140 m (Doyen 2009: 18; Budka 2011: 23; Doyen 2014: 369). Six levels of occupation have been identified including Pharaonic, Meroitic, Post-Meroitic, two Medieval levels, and an Islamic level based on standing remains (Doyen 2009: 18). The earliest levels at Sai Island (Levels 5 and 4) are the hardest to reconstruct given the limited amount of remaining architectural evidence. Substantial remains come from Level 3. It was at this time that the town was modeled or remodeled after traditional pharaonic towns which included a stone temple built by Thutmose III and dedicated to Amun (Temple A) and an orthogonal arrangement of the town with the southern portion containing different quarters. Level 3 can be dated from Thutmose III to at least Amenhotep III based on the ceramic analysis (Budka and Doyen 2012/2013: 182).

The southern portion of the town contains different areas arranged along the north/south and east/west axes (Fig. 69). One of the areas (SAF2) has been designated as the eastern palatial quarter where there is a large columned hall (15.3 m x 16.2 m) and mud-brick paving in its eastern section (Doyen 2009: 18; Budka and Doyen 2012/2013: 171). Additional areas include the central domestic quarter (H) composed of a series of five houses and the western quarter (SAF5), which contained rectangular storage rooms and circular silos (Doyen 2009: 18; Budka and Doyen 2012/2013: 171). Temple A is aligned with the main north/south axis along its western side. Other sites with similar layouts include the New
Kingdom Nubian towns of Buhen, Amara West, and Sesebi (Budka and Doyen 2012/2013: 171).

In the northern portion of the town is SAV1 North sector (SAV1N) (Fig. 70), which contained several domestic structures, some including storage facilities, ovens, and grinding implements (Doyen 2009: 18-19; Budka 2011: 24; Budka and Doyen 2012/2013: 171-172). The structures in SAV1N are linked to food preparation and storage such as House N12 which had places for grinding stones (N16), a circular storage pit (N17), and two sub-rectangular storage bins with a mud coating (N19 and N20). Ashy deposits were also found in the back portion of the structure, which indicates the presence of an oven (Budka and Doyen 2012/2013: 177; Doyen 2014: 372). The features found within this building are involved in the preparation of bread, grain storage, and the making of flour for bread. The layout of House N12 confirms the presence of Egyptian-style tripartite housing on Sai Island (Budka and Doyen 2012/2013: 176). Although it is smaller than the typical houses found at Elephantine and Amarna, measuring approximately 29m², small-scale tripartite houses have been found at Middle Kingdom Nubian sites such as Uronarti and Buhen (Budka and Doyen 2012/2013: 176-177).

The material culture remains at Sai Island that can be dated to the New Kingdom are representative of the assemblages from other Egyptian settlements in both Egypt and Nubia (Budka and Doyen 2012/2013: 183). The main categories of finds include: Figures and statuettes, Personal adornment, Household items, Tools and instruments, Non-ceramic vessels, and Models, games, and unidentified pieces. Interestingly, there is a general lack of textual evidence in the small finds category. Jar dockets and seals are rare, and only four scarabs have been found. There is also no evidence for faience production on Sai Island.
(Budka and Doyen 2012/2013: 187-188). The pottery found within SAV1N indicated that activities beyond household tasks and living were being performed. Vessels for storage purposes, food production and consumption, feasting and religious activities, such as incense burning, as well as imported vessels were also discovered at SAV1N (Budka and Doyen 2012/2013: 190-198; Doyen 2014: 374).

II.B. Sesebi

The site of Sesebi (Fig. 71) is located between the Second and Third Cataracts on the West bank across from the town of Delgo. Excavations were originally conducted by the Egypt Exploration Society under the direction of Aylward Blackman and Herbert Fairman from 1936 to 1938 (Blackman 1937: 145-151; Fairman 1938: 151-156). Sesebi is currently being excavated by a joint mission of the University of Cambridge and the Austrian Archaeological Institute in Cairo under the dual directorship of Kate Spence and Pamela Rose. This temple town, along with Kawa, was presumably established during the reign of Akhenaten as evidenced by foundation deposits dating to his early reign found under the corners of the enclosure wall and main temple (Spence et al. 2009: 38; Welsby 2010b: 52; Spence et al. 2011: 34). The northern temple was also architecturally similar to religious structures found at Amarna dating to the later portion of Akhenaten's reign.

Although the fortified town at Sesebi was established during the reign of Akhenaten, there is evidence of occupation from earlier in Dynasty Eighteen that includes pottery (Spence et al. 2009: 41-42; Spence and Rose 2014: 410-412), seal impressions bearing the names of Thutmose III and Thutmose IV, and architectural features such as reused column drums, mud-brick walls that predate the enclosure wall, and a possible foundation trench for
an earlier enclosure wall (Blackman 1937: 149; Spence et al. 2009: 39-40; 42-43; Spence et al. 2011: 34-35; Spence and Rose 2014: 409-410). Sesebi was abandoned in the early Ramesside period, but there is evidence of Napatan occupation in the town and cemetery. After the Napatan period, building activities moved approximately 1km north to Jebel Sese. Evidence for occupation in the area of Jebel Sese can be dated from the Meroitic to the Ottoman periods and modern times (Spence et al. 2009: 39; Spence et al. 2011: 38).

During a preliminary survey of the site, Spence and Rose discovered evidence that Sesebi may have been devoted to mineral extraction. Spoil heaps in the southern, residential, portion of the town had many whole and broken striated hard stone grindstones with ovoid depressions made by rubbing and displayed linear grooves cut into the surface of the grinding area (Spence et al. 2009: 38). These types of grinding stones for gold processing were introduced during the reign of Thutmose I (Klemm et al. 2002: 216). Many of these grinding stones show signs of use and reuse on both sides. Parallel examples have been found at New Kingdom gold mining sites in the Eastern Desert in both Egypt and Nubia (Spence et al. 2009: 38). In addition to the grinding stones, spoil heaps were found with significant quantities of crushed quartz. Pitting can be seen in the wadi between Sesebi and Jebel Egri, located about 2km north of the town. However, dating these disturbances is problematic due to the lack of cultural material in this area (Spence et al. 2009: 38-39). The presence of crushed quartz along with the grinding stones does indicate that mineral extraction, particularly gold, was important at this site (Spence et al. 2009: 38; Spence and Rose 2009: 21-24; Spence and Rose 2014: 409).

Evidence of Nubian gold mining has been found to the north and south of Sesebi, which also suggests that gold mining was occurring at this site as well. Gold production in
Nubia is almost exclusively restricted to the time from Thutmose III to Akhenaten after which there is no more evidence of pharaonic gold mining south of Wadi Allaqi (Klemm et al. 2002: 215, 218; Spence et al. 2009: 39); however, gold mining continued in the Eastern Desert of Egypt until the end of the Ramesside period (Klemm et al. 2002: 217). Gold mining in the Abri-Delgo reach from Amenhotep III to the Ramesside period probably began as the gold supply in the Eastern Desert dwindled and new gold sources were being exploited from the area of Sesebi to northern sites including Soleb.

Sesebi has two temples within the main enclosure wall. The main temple is located near the northwestern corner of the town, and a smaller temple to the north. Both of these temples were constructed during the reign of Akhenaten. The main temple was built during the early part of his reign, probably prior to his name change, as evidenced by a foundation deposit, whereas the northern temple is similar in design to temples at Amarna indicating a later construction date (Spence et al. 2009: 42). The main temple was cleared and preliminarily recorded during the 1936-38 excavations, but it was cleared and recorded again during the 2010 field season. The temple platform had substantial foundations below its walls and columns, which were filled with rubble, stone chips, plaster, and alluvial soil (Spence and Rose 2014: 414). A layer of plaster was placed on top of this fill and the paving stones were laid directly on top of the plaster. Using large amount of mortar is a common feature of talatat architecture from the reign of Akhenaten; however, the main temple conforms with traditional Egyptian construction through the use of large stones quarried from the local wadi to the north of the site and cut to fit prior to being laid (Spence and Rose 2014: 414).

Some decorated plaster and stone fragments were collected and removed from the floor of the crypt from the main temple. These finds yielded important iconographic or
textual information such as an image of Nebmaatra (Amenhotep III) Lord of Nubia, with similar iconography to the examples from Soleb, and an image of Aten, Lord of Nubia, which is pre-Amarna in style (Spence et al. 2011: 36). The decoration on the columns depicts Akhenaten, Nefertiti, and the Aten in the typical Amarna style. However, they have been deliberately damaged and re-carved with images of Seti I (Spence and Rose 2014: 414). A concentration of bread mould fragments were found in the northeastern corner of the site, Area 1, outside of the town walls. The concentration of the bread moulds in this area to the east of the main temple could indicate that the temple bakeries were originally located there (Spence et al. 2009: 42; Spence and Rose 2014: 412).

Areas 10 and 15, in the southern portion of the site, have a cluster of houses with limited occupational deposits (Spence et al. 2011: 35). This area was originally investigated and recorded during the 1936-38 field seasons (Fig. 72). It is orthogonally planned consisting of mud-brick houses with stone architectural details. The houses are aligned in long rows with an adjoining house on the east and west with a wide street separating them from the enclosure wall. Features common among these houses include mud flooring, mud-plastered walls with occasional whitewash, no evidence of decoration on the walls, intricate roof beams, or ceilings (Blackman 1937: 150). One of the houses (F.6.13) has the remains of a staircase that probably led to the roof. Houses F.6.3, F.6.19, and F.6.20 all have column bases that might have originally came from an upper storey, and Houses F.6.22 and F.7.2 may have also had a second floor (Blackman 1937: 150). The houses have evidence of a kitchen with ovens, yet no evidence of bathrooms were found. Storage areas were also found in the houses consisting of two types. The first type was a small, beehive-shaped space with a whitewashed stone lining and a stone covering slab. The second type was larger, deeper, and
irregularly shaped. Storage areas of the first type appear to have been part of the original construction of the site, as evidenced by one of the units which was found sealed with a scarab of Amenhotep III within it, whereas the second type of storage areas were later in date (Blackman 1937: 150).

The larger houses (F.6.13, F.6.22) are similar in style to the Amarna elite houses (Blackman 1937: 150). House F.6.22 is the best preserved of all of the houses at Sesebi. The entrance is on the northern side of the building and leads into an anteroom. Following this anteroom is a hall, which is followed by a common living area. This room contained one column, a brazier, and a mastaba bench along the western wall (Blackman 1937: 150), similar to Villa E.12.10 at Amara West. To the east and west of the central room are doorways leading into smaller rooms. Another doorway on the southern side of the central room leads into the private areas of the owners of the house (Blackman 1937: 150). All of these rooms are tripartite in design with the outer rooms understood to be a bathroom and a dressing room, and the inner room being the bedroom as evidenced by the thickening of the walls which would have allowed for the support of a bed niche along the southern wall (Blackman 1937: 151).

Pottery found within the fortified town included both Egyptian and Nubian types. The Egyptian types have been dated to late Dynasty 18. Marl wares found at the site include fragments of amphorae, one-handled mugs, and pilgrim flasks (Spencer et al. 2009: 42; Spence et al. 2011: 37). Upper Egyptian marl clay examples are decorated jars and carinated bowls. Red slips that are common at Amarna are less commonly found at Sesebi where the pottery was decorated with red rim bands on an uncoated surface (Spence et al. 2009: 42; Spence et al. 2011: 37). No blue painted pottery, another common style of Amarna period
Nubian pottery found at Sesebi includes potsherds of Kerma beakers and handmade siltware with basketry impressions on the exterior (Spence et al. 2009: 42; Spence et al. 2011: 37; Spence and Rose 2014: 412). Similar assemblages have been found in Egypt at Deir el-Ballas and Memphis as well as in Nubia at Askut and Sai Island (Spence et al. 2009: 42; Spence et al. 2011: 37). Surface potsherds from Area 16 of the main temple were made of Memphis fabric G6a, which does not appear until the beginning of Dynasty 19 (Spence et al. 2011: 37). Some Napatan or Dynasty 25 potsherds were also found throughout the town and in spoil heaps outside the town wall. Concentrations of Napatan pottery, both wheel-made and handmade wares, were identified in the center of the town at Area 9 and at the cemetery to the west around one of the New Kingdom burial pits, which occurred when the grave was reused at a later date (Spence et al. 2009: 42; Spence et al. 2011: 35, 37-38).

II.C. Amara West

Amara West is located on a small island measuring 800 m x 300 m, between the Second and Third Cataracts, just north of Sai Island (Spencer 2009: 47; Spencer et al. 2014: 10). The site was originally excavated by the Egypt Exploration Society (EES) until January 1, 1950. Excavation is currently being conducted by the British Museum under the direction of Neal Spencer. Up to five architectural phases have been identified, primarily dating to Dynasties 19 and 20; however, the site may have remained in use as late as Dynasty Twenty-five (Spencer 2009: 47; Spencer 2012: 40; Spencer 2014: 458). Seti I chose Amara West as the site for his new town, which was called "House of Menmaatra (Seti I)" (Spencer et al.
2014: 10). In antiquity, the site was also referred to as "House of Ramesses, Beloved of Amun" and later "House of Ramesses, Ruler of Thebes" (Spencer 2009: 47), which supports a Ramesside period occupation. Although occupation prior to the Ramesside period cannot be completely ruled out, and Amara West may have already been populated during the Kerma period, to date the excavators have not found convincing evidence of occupation before Seti I (Edwards 2004: 106; Spencer 2009: 47; Spencer et al. 2014: 10).

The original site measured 11,660 m² and was surrounded by a mud-brick enclosure wall constructed of bricks that were stamped with the name of Seti I. This enclosure wall was 2.3-2.8 m thick, had bastions along the wall, corner towers, and a walkway along the top so guards could patrol the area (Spencer et al. 2014: 10; Spencer 2014: 459). Although clearly an important administrative center in Upper Nubia during the Ramesside period, possibly replacing Soleb, Amara West is dwarfed in size by Sesebi (54,000m²) and Sai Island (33,320m²). Based on its size, the population of Amara West probably did not exceed 200 inhabitants (Spencer et al. 2014: 20; Spencer 2014: 460).

The town was accessed by two gates, one facing west and the other facing north. A third gate permitted direct access to the temple of Amun-Ra (Spencer et al. 2014: 14). The temple of Amun-Ra occupied about a quarter of the area within the walled town. It was constructed of Nubian sandstone. This temple is datable to the reign of Ramesses II forward based on the decorative program and two commemorative stelae. One of the stelae recorded Ramesses's marriage to a Hittite princess, and the other recorded a dream where he received a blessing from Ptah (Spencer et al. 2014: 14). The layout of the temple was modeled directly upon New Kingdom Egyptian examples placing it in clear context to New Kingdom construction. It had a peristyle court with rows of columns and was paved with slabs of
sandstone and black schist. The walls of the peristyle court were adorned with hieroglyphic inscriptions dating to Year 6 of Ramesses IX, probably commemorating the end of the decoration in the temple. This is the last known New Kingdom royal inscription found in Upper Nubia (Spencer 2009: 47; Spencer et al. 2014: 15). Through the peristyle court was a roofed hypostyle hall, which was decorated with scenes of the king making offerings to the gods, military campaign victories, and images of bound prisoners that included Nubians at the bottom of the walls (Spencer et al. 2014: 15). The hypostyle hall led to a broad room with a staircase to the roof and three sanctuaries situated side by side. The middle sanctuary was probably dedicated to Amun-Ra. Additional gods depicted in the temple include Khnum, Anuket, and Satet, the triad associated with the First Cataract, as well as Mut and Khonsu, the consort and child of Amun-Ra (Spencer et al. 2014: 16). The temple also had long, narrow mud-brick storerooms with vaulted roofs and stone doorways. One of the storerooms contained over 400 clay seal-impressions bearing the names of Thutmose III and Hatshepsut who ruled 150 years prior to the establishment of Amara West (Spencer et al. 2014: 17); however, the use of the name Thutmose III for seal-impressions continued for centuries after his death (Spencer et al. 2014: 49).

Near the western gate and inside the enclosure wall there is a large residential building, which has been identified as the Deputy's Residence (E13.2). The building measures 24.5 - 26 m x 29 m and has walls up to 1.1 m thick (Spencer et al. 2014: 17; Spencer 2014: 459). E13.2 appears to have remained the same despite repeated renovation of the building over time. The rooms had brick pavements, stone columns with palmiform capitals, stone doorways, and courtyards measuring at least 10 m x 10 m. The inscribed door jambs and lintels listed several deities (*idnw*), including Sebaukhau, who served under Seti

Another large house at Amara West was located in the western suburb outside of the walled town, designated E12.10 (Fig. 73). This house is the northernmost one of a series of at least six large buildings, which have all been designated as "villas" since they are all similar to New Kingdom elite houses such as those found at Amarna (Spencer 2009: 50; Spencer 2014: 461) underscoring Egyptian style architectural dominance at this site. E12.10 was constructed atop alluvial deposits and Dynasty Nineteen rubbish, as no foundation trenches were discovered (Spencer 2009: 51; Spencer 2014: 461). The villa was constructed of mud-brick (36.5-39.5 cm x 17-20 cm x 5-8 cm) with an exterior wall measuring 80 cm thick. The building itself measures 28 m x 17 m (Spencer 2009: 51).

E12.10 consisted of 13 rooms including an entrance porch (Room 13). The entrance porch was lined with schist paving stones, which led to the main doorway. Given the prevalence of wind-blown sand, the ancient inhabitants built a cross wall and steps, allowing people to step down into the entrance porch (Spencer 2009: 51). The main doorway had stone door jambs and lintel. The lintel had a cavetto cornice and torus moulding and had been plastered. No inscription survives on the lintel, but presumably it would have had the names and titles of the owner. The south wall of the porch also had a similar lintel (Spencer 2009: 51; Spencer 2014: 466). An entrance porch has not been found at any other house within the walled town at Amara West (Spencer 2014: 466).

The entrance porch (Room 13) and the main courtyard (Room 7) were separated by a small corridor (Room 12) that was also lined with schist paving stones. This corridor would have allowed for some privacy for those in the main courtyard (Spencer 2014: 466). Room 7,
originally measuring 9.45 m x 7 m, probably did not have a roof as evidenced by the lack of column bases or slabs to support columns (Spencer 2009: 52; Spencer 2014: 466). There were brick piers on either side of the room from different building phases, which indicated that the owners made minor modifications to the house during their occupancy. Five storage bins were found against the western wall. The bins were arranged in an L-shape and were raised above the ground floor level by schist slabs. Another slab was used as the base for the bins and the sides were made of thin, plastered bricks. The bins were not bonded to the western wall, so it is unclear whether they were part of the original construction or a later modification (Spencer 2009: 53; Spencer 2014: 466). Along the southern wall of Room 7, which would have been the original exterior wall, a smaller room was added (Room 6) (Spencer 2009: 52; Spencer 2014: 466).

To the south of the storage bins was a doorway leading to two rooms. One of the rooms contained grinding installations (Room 9), and the other had seven ovens (Room 10). There were thick deposits of ash in the ovens, and parts of the walls showed evidence of burning through a reddish-black discoloration due to the smoke from the ovens (Spencer 2009: 53; Spencer 2014: 466-467). The number of grain grinding installations and ovens was unusual for a single dwelling; therefore, E12.10 may have supplied grain and bread to other houses in the area (Spencer 2009: 53; Spencer 2014: 467).

The main courtyard (Room 7) also provided access via a doorway at the northwestern corner of the court to a small square room (Room 8), which had white plastered walls that were well preserved (Spencer 2009: 54; Spencer 2014: 467). Although the function of this room is unknown, it does contain a small brick bench (1.33 m x 0.76 m) and is the only point of access to the rear of E12.10. A doorway at the northwest corner of Room 8 leads into a
large room (Room 5) that spans the width of almost the entire villa and contained only the base of a circular hearth with a small step in front of it that was located roughly in the center of the room (Spencer 2009: 54). In the eastern wall is a doorway leading to another small room (Room 4) containing a small staircase that would have led to the roof or, less likely, a second storey. Another door, in the northern wall of Room 5, leads into a private courtyard (Room 2). This room has white-washed brick pavings throughout and a mastaba bench along the northern wall. Room 2 probably served as a primary private courtyard and reception room and may have been roofed (Spencer 2009: 54; Spencer 2014: 468). On the western side of Room 2 there was a doorway leading to a paved room (Room 3), which also had a platform against its southern wall. The eastern side of Room 2 also had a doorway leading to an unpaved room (Room 1) that had a shallow bowl found *in situ* along with a double-edge copper knife and fragments of a decorated faience bowl (Spencer 2009: 54-55; Spencer 2014: 468).

Aside from the objects listed above from Room 1, quern stones, fragments of worked stone, pottery roundels, faience and shell beads, and pieces of red and yellow ochre, there was a lack of objects within the villa indicating it was intentionally emptied prior to the abandonment of the building (Spencer 2009: 55; Spencer et al. 2012: 40). However, two sondages were dug beneath the floor levels of Rooms 1 and 6, which yielded interesting finds. In the first sondage, located in Room 1, 51 clay seal impressions were found. Some of the seals bore the prenomen of Thutmose III, similar to the ones found in the storeroom of the temple of Amun-Ra, while others had a decorative scroll motif, tilapia with a lotus flower.

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11 Although multi-storied houses do exist in New Kingdom Egypt and, therefore, could have been constructed in New Kingdom Nubia as well, it is unlikely that Villa E12.10 had a second storey. There are no column bases present, which would indicate that there were no columns that could have supported the weight of an upper level, and no archaeological debris from the second floor such as smaller column bases and decorative elements that do not align with the decorative program of the first floor were discovered (Spencer 2009: 54).
it its mouth, and other scenes. These seal impressions are indicative of the presence of a functioning Egyptian bureaucracy at Amara West (Spencer 2009: 55).

The second sondage was in Room 6 and contained potsherds, one of which had a hieratic copy of an excerpt of the *Teaching of Amenemhat*. This potsherd was similar to one discovered at Amara West in 1938-39, which also had a copy of the *Teachings* written on it (Parkinson and Spencer 2009: 26). These sherds are the first copies of the classic Middle Egyptian literary text discovered outside of Egypt (Spencer 2009: 55; Parkinson and Spencer 2009: 27; Spencer 2014: 481). Another sherd with a copy of the *Teaching* was also found at Amara West in 1938-39 (Parkinson and Spencer 2009: 26). Over 200 copies of this poem exist throughout Egypt at sites including, but not limited to, Lisht, Elephantine, Thebes, and Amarna (Parkinson and Spencer 2009: 27). The presence of *The Teaching of Amenemhat* at Amara West is the first example proving that formal Egyptian scribal training was taking place outside of Egypt; however, it remains unclear whether those who were actually using the *Teaching* were impacted by the anti-Nubian elements within the text (Parkinson and Spencer 2014: 18).

The closest Nubian parallel to Villa E12.10 is a large house recorded by Georg Steindorff at Aniba (Spencer 2009: 56; Spencer 2014: 468). This house also has a projecting entrance and tripartite division of space but has columned rooms. During Dynasty 20, Aniba became the seat of the Deputy of Lower Nubia, thus justifying the construction of a large-scale residence at the site (Spencer 2009: 56). Dwellings of this size have also been found at Sesebi (Spencer 2009: 56; Spencer 2014: 468). Although the best Egyptian parallels of Villa E12.10 are located at Amarna based on size and similarities with the houses there, only three luxury houses are comparable in size: those belonging to Nakht (K50.1), High Priest Pawah
(O49.1), and Overseer of Works Hatiay (T34.1). These houses had a tripartite design, an entrance porch followed by front rooms, "middle" groups of rooms with a staircase and hall, and an "inner" group of rooms with bathroom and an inner hall (Spencer 2009: 55-56). Despite these similarities, Villa E12.10 did not have an outside walled compound or a cult area within the house, which are all common features of houses at Amarna (Spencer 2009: 56; Spencer 2014: 461).

Built directly on the top of the southeastern corner of the entrance porch (Room 13) of E12.10 were the remains of a mud-brick building with an oval plan, which has been designated E12.11 (Fig. 74) (Spencer 2010: 17; Spencer 2014: 465). The walls of E12.11 were constructed without a foundation trench on top of windblown sand, and were plastered with plain clay on both the interior and exterior sides. Remains of an entrance, measuring 55 cm in width, were found on the southeastern side of the building. A plastered door socket showing evidence of usage was found at the entrance (Spencer 2010: 18).

The inside of E12.11 was divided into two parts by means of wall segments. These segments each had the same thickness as the exterior wall (15 - 18 cm), and were contemporaneous with it (Spencer 2010: 17-18; Spencer 2014: 465). A gap of 70 cm separates the two wall segments, which was presumably for the door, although no door fittings were located. The smaller of the two rooms (E12.11.1) had a floor consisting of a 3 cm layer of compacted clay and charcoal flecks; however, no areas for burning or ashy layers were found (Spencer 2010: 18; Spencer 2014: 465). This room may have been roofed, but roofing materials or impressions of roofing have not yet been identified. E12.11.1 does not appear to have been modified during its use (Spencer 2010: 18; Spencer 2014: 465). The larger room (E12.11.2) also had a clay floor. It is unlikely that this room was roofed as a roof
would have needed to span almost 4m in length and there is no evidence for postholes, columns bases, door lintels, or doorsills that would have supported the roof. The thickness of the walls also suggests that E12.11 did not have an upper storey (Spencer 2010: 18; Spencer 2014: 465).

At the northern portion of room E12.11.2 there were two bonded brick walls that formed an L-shaped feature that opened to the west. A third wall may have originally been present, suggested by the break of the line in the floor and the extent of the mud plaster, thus closing off the space (Spencer 2010: 19; Spencer 2014: 465). All of the walls show evidence of burning, but not up the entire height of the walls. Some object which would have been rectangular rather than circular, such as a pottery stand, prevented the burning from spreading beyond a certain point (Spencer 2010: 19). The placement of the feature against the northern wall would have protected it from strong winds. A layer of sand with ash and charcoal flecks was found above the floor of E12.11.2, which was subsequently sealed by a 15 cm thick layer of mud-brick rubble and ash (Spencer 2010: 19-20; Spencer 2014: 465). The layer of mud-brick rubble probably came from the upper courses of the walls when they fell. On top of the rubble layer was another layer of occupation deposits including charcoal, bone, plaster, silt, and sand as well as windblown sand with fragments of brick and mud plaster (Spencer 2010: 20).

E12.11 was probably constructed during or after Dynasty 20 since it was built on top of part of E12.10. Pottery found within the structure included Egyptians-style plates, large bowls, jars, and a fragment of a large pot stand. Some Nubian potsherds were also discovered, which included late Ramesside period forms (Spencer 2010: 20; Spencer 2014: 465). There were no post-New Kingdom forms of pottery found among all of the fragments.
from E12.11, E12.12, and E12.13 (Spencer 2010: 20; Spencer et al. 2014: 40). Evidence of post-New Kingdom occupation at Amara West can be found in the burials at Cemeteries C and D as well as the pottery found in the southern part of the town mound (Spencer 2010: 20-21; Spencer 2014: 482).

The function of E12.11 remains uncertain. Circular or oval-shaped structures were traditionally reserved for use as silos, wells, or tree pits (Spencer 2010: 21; Spencer 2014: 465). The presence of clay flooring eliminates the possibility that the building was used as a tree pit or a well. E12.11 was probably not used as a silo either due to the use of a dividing wall, the L-shaped feature along the northern internal wall, and the presence of storage bins within the villas and houses throughout the site (Spencer 2010: 21; Spencer et al. 2014: 40). The height of the walls and their construction of mud-brick suggest that E12.11 was not used as an animal pen. It is also unlikely that this structure was used for industrial activities since only small areas of ash and burning are found throughout the building, and there are no remains of ceramic wasters, metal working, stone working, pigments, quernstones, stone grinders, bread ovens, or grindstone installations (Spencer 2010: 22; Spencer et al. 2014: 40). However, the building of circular architecture and structures with curvilinear walls is a standard feature and practice in Nubian settlements from the Neolithic period onward.

III. Concluding Remarks

As discussed in Chapter 1, the primary characteristics of a palace in New Kingdom Egypt include:

1. Placement within the site and in relation to surrounding buildings.
2. Size of the building.
3. Building materials (e.g. mud-brick, stone, etc.).
4. Room configuration within the building.
5. Control of access to the king.
6. Decorative program within the building indicating a royal function (e.g. bound captives, processions, etc.).
7. Material culture, when available, within and around the building.
8. The presence of a Window of Appearance, especially in buildings associated with temples.

Although the palaces presented in this chapter may have been built to accommodate different needs of the king, the presence or absence of these features impacted the architectural design and function of the buildings (Table 2). The palaces that demonstrate a secular function are all centrally located within the site and occasionally atop a hill in order to raise the building within the landscape. The temple palaces were within proximity to or attached to an associated temple, merging the two buildings into one complex. Although the amount of decoration and material culture remains within and around the palaces varies from building to building, these elements can be indicative as to the function of the building or site, as seen at Medinet el-Gurob. All of the palaces were constructed of mud-brick with stone architectural details, which signifies their role as a secular structure rather than a religious one. Conversely, most of the identified temple palaces have a façade constructed of stone, which is where the secular and religious realms converged. The palaces with higher degrees of control of access appear to be better candidates for a true residential palace than the ones with a lower degree of control of access as evident in the temple palace examples. The presence or absence of a Window of Appearance does seem to be a feature reserved for temple palaces; however, that element is also found in potential residential palaces at Amarna. This could be due to the integration of the royal family into the divine realm during the Amarna period.
New Kingdom Nubian settlements at Sai Island, Sesebi, and Amara West have structures that are similar to non-royal structures found at Egyptian as well as Middle Kingdom and New Kingdom Egyptian-controlled sites in Nubia. House N12 on Sai Island, houses F.6.13 and F.6.22 at Sesebi, and Villa E12.10 at Amara West, all have a tripartite arrangement similar to houses found on Elephantine and Amarna, the Middle Kingdom Nubian sites of Uronarti and Buhen, and the New Kingdom Nubian site of Aniba. Additional shared features of typically Egyptian versus Nubian design include an entrance porch, the location of the grain emplacements, and a circular hearth with a small step. Although native Nubian elements can also be discerned (e.g. the rounded walls of E12.11) emphasizing that although Egypt had control over Nubia at this time, native Nubian architecture were still being constructed.

Since there currently is a lack of a viable framework for understanding Nubian palatial architecture unto itself, the elements present in the New Kingdom Egyptian palaces can be seen to generate a definition for the palaces present in Nubia, which will be the focus of the remainder of this dissertation.
Chapter 3: Contact with the External World and its Impact on Napatan and Meroitic Palatial Architecture

As with most civilizations in the ancient world, Nubia had contact with its neighbors. These connections can be observed through objects and architectural design imported into Nubia, as well as exported Nubian objects found at foreign sites. According to Török, "The philosopher distinguishes three elementary types of historical encounter: comprehensive acceptance of the other as 'other', transformation of the self through the other, finally, becoming self through the other (or, simply, awakening)” (1989: 52). Through contact with other ancient civilizations, the Kushites were exposed to additional artistic and architectural designs that were incorporated to express their culture through adaptation or in an adaptive language. This chapter will examine contact between Nubia and her neighbors, particularly, Egypt, the Aksumite Empire of modern-day Ethiopia and Eritrea, and the Classical Mediterranean spheres.

I. Nubia and Africa

I.A. Egypt

As stated in Chapter 1, there is no debate with regard to the connection between Egypt and Nubia. The two countries had contact ranging from the Old Kingdom through Roman period in Egypt. When Nubian established a distinct kingdom during the Napatan period it displayed elements of Egyptian culture through its art, religion, language, writing systems, and titularies. This distillation of this concept is referred to as archaism and it has been described by Edna Russman as, "the imitation or emulation of older works (which can be) found in forms as diverse as art and architecture, writing, and personal names and titles"
The archaizing tendencies of Nubian culture can be recognized in both its monumental and non-monumental remains. The Kushite period of Nubia adopted a connection with the Theban god Amun seen through the construction of Amun temples throughout Nubia, and the king's legitimization through Amun's consent. Egyptian-inspired pyramids were built at sites that include el-Kurru, Nuri, and Meroe, which appropriated Egyptian-style grave goods within them as well.

When the kings of Kush ascended to the throne, they adopted Egyptian-style titularies and by the reign of Kashta, the king was already declaring himself to be the "King of Upper and Lower Egypt", and had also adopted the "Son of Ra" element of the titulary (Eide et al. 1994: passim; Török 2002: 336-341). Piye was the first Kushite king to adopt the full Egyptian titulary; he also added Son of Bastet (see Chapter 5). His Two Ladies and Golden Horus names were modeled after Thutmose III and his Horus name "Strong-bull, Appearing-in-Napata" was a direct reference to Thutmose III's Horus name "Strong-bull, Appearing-in-Thebes" (Eide et al. 1994: 48; Török 1997a: 192; Pope 2014: 35). The epithet "Beloved of Amun" has been attested in the Throne name of several kings beginning with the reign of Piye (Eide et al. 1994, 1996: passim), but, with the introduction of the Meroitic script, beginning in the late second century BC, the rulers abandoned the traditional five-part titulary. Interestingly enough, the beginning of the Meroitic period also saw a new dynastic line emerging. When Arkamaniqo, a contemporary of Ptolemy II (282-246 BC) developed his titulary, he chose the throne name of Amasis of Dynasty Twenty-six (570-526 BC) "The Heart of Ra Rejoices" (Török 2002: 338). Amasis took the throne of Egypt by force when he deposed his predecessor Apries. Since Arkamaniqo chose to model his titulary after the usurper Amasis rather than the kings of the New Kingdom, he may have been admitting to
taking the throne by force as well (Török 2002: 338; Torok 2009: 390). Although the early Kushite kings modeled their titularies after those of their Egyptian counterparts, there is no Napatan or Meroitic titulary which completely corresponds to an Egyptian one. This indicates that the Kushite kings perpetuated the concept of a titulary being an individual proclamation of their legitimacy (Török 1997a: 207). Along with the usage of an Egyptian-style titulary, the Napatan kings also incorporated elements of Egyptian-style texts, particularly those recorded on sarcophagi, into their funerary culture. These texts were probably acquired during the Nubian rule of Egypt during Dynasty Twenty-five when a strong presence at Thebes had been established. Elements of Egyptian religion were also adopted into Napatan and Meroitic society. One of the most well known was the integration of Amun as the primary deity in Nubia, particularly during the Napatan period. This assimilation was most likely prompted by the emigration of Egyptian priests to Napata.

Temple/city 3

Temples dedicated to Amun, as well as temples and shrines dedicated to other deities, exhibit a design based on the style of Egyptian New Kingdom temples. The main temples were constructed on an east-west axis with secondary rooms located to the sides of these structures. The entrance to the temples was flanked by pylons leading into a series of courts, the number of which depended upon the size of the temple. Hypostyle Halls were utilized during major festivals when the Barque of Amun would be processed to and from the temple in a manner similar to the festivals of the Amun Temple at Karnak. This type of temple construction can be identified at the primary coronation sites of Meroe, Napata, Kawa, and Kerma (Fig. 75) (see Chapter 5). In keeping with the Egyptian Third Intermediate Period practice, Kashta also presented his daughter as God's Wife of Amun, thereby establishing

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12 For a full discussion and analysis of the connections between Egyptian and Nubian funerary culture, see Doll 1978.
himself as a protector of the Amun cult (Williams 2006-2007: 406). Kashta's successors would continue the practice until their expulsion from Egypt by the Assyrians during the reign of Tanutamani.

Symbols of kingship deriving from ancient Egypt were also incorporated into the Kushite iconography. Headdresses worn by the Napatan kings and queens were a mixture of Egyptian-influenced regalia and traditional Nubian regalia. The Egyptian White and Red Crowns, which symbolized dominion over both Upper and Lower Egypt, could be used interchangeably by the Kushite rulers although the Double Crown would have been worn by the Twenty-fifth Dynasty Nubian kings, it was substituted in the Napatan period by the use of a double uraeus to symbolize dominion over both Egypt and Nubia (Török 1987a: 14-15).

The most prominent headdress of the Kushite kings was a skullcap with a diadem bearing one or two uraei and streamers (Fig. 76). This type of headdress was introduced into Egypt's Twenty-fifth Nubian Dynasty and subsequently disappeared from Egyptian royal iconography when the Nubians withdrew to their own country. The skullcap was closely fitted to the head, sat low on the forehead, and had tabs in front of the ears (Török 1987a: 4). While the material of the skullcap remains unknown, it was traditionally shown in a manner similar to the Egyptian Blue Crown with single dots or dotted circles (Figs. 77a and b), possibly representing metal ornaments on a soft-material cap or an incised decoration on a metal helmet (Török 1987a: 4).

Although the Nubian kings and queens did emulate Egyptian-style crowns, they were adapted over time to accommodate their ideology. For example, during the reign of Natakamani and Amanitore during the Meroitic period, the serpent head on the uraeus was replaced by a lion head (Fig. 78). This modification is probably due to the increased
importance of the god Apedemak during the later Meroitic period (Török 1987a: 9). It is important to note that even though the Napatan and Meroitic rulers used Egyptian-style crowns, regardless of how they were adapted, the crowns themselves were not intended to only represent authority over Egypt; they were primarily meant to symbolize authority in general (Török 1987a: 8).

Along with artistic and religious influences, the Nubians mimicked Egyptian secular architecture. A common feature of Egyptian-style architecture was the casemate construction of a building's foundation, which can be found in a variety of buildings that included temples, houses, strongholds, watchtowers, and palaces (Spencer 1999: 296; Malecka-Drozd 2014: 69-96). One of the notable palatial examples is seen in the Twenty-sixth Dynasty Palace of Apries at Memphis (Fig. 79) with its associated military or police camp, presumably serving as the protective force for the palace. The casemate platform, which measures 13.66 m in height, was approached by means of a ramp (Spencer 1999: 297; Lopes 2013: 36). The platform was constructed of thick, vertical walls descending unbroken through the mound on which the platform was built. The space between these walls was mostly filled with rubble and appear to have been filled deliberately (Kemp 1977b: 102). Most of these filled spaces were covered with a layer of mud-brick. Atop the mud-brick, a limestone floor was laid covering most or all of the top layer of the casemate foundation (Kemp 1977b: 104). The use of a casemate foundation in order to protect the Palace of Apries at Memphis is consistent with the high-security nature of the building, causing this type of structure to sometimes be classified as a fortress palace (Pagliari 2010: 336).

Casemate foundations were also revealed in New Kingdom architecture, notably at the North and South Palaces at Deir el-Ballas, and at Second Intermediate Period structures,
particularly Palaces G, F, and J at Tell el-Dab'a (see Chapter 2). The evolution of palatial architecture in Egypt maintained a level of consistency from the Middle Kingdom to the Late Period; however, the development of the casemate foundations and elevated platforms supporting the palaces enabled them to expand vertically rather than horizontally. This vertical expansion enabled the palaces to be more visible and monumental within the landscape, as well as more defensible (Pagliari 2010: 340; Malecka-Drozd 2014: 88-96).

Similar casemate construction has been identified in Nubia, particularly at the palaces of Wad ban Naga (Vercoutter 1962: 281), Muweis (Baud 2008: 57; Baud 2011: 349-352; Maillot 2014: 783-795; Maillot 2015: 82-83), B1500 at Jebel Barkal (Roccati 2008: 252), and M750 (Grzymski and Grzymaska 2008: 47) (Fig. 80). Casemate construction can also be identified in the palaces at Faras, Doukki Gel, Sonijat, B100, B2400, M950, M251-253, M255, M294, M295, and Musawwarat es-Sufra. Casemate foundations have occasionally been confused with storage areas, or storerooms, within these palaces. While both types of rooms are usually narrow and rectangular in shape, they can be differentiated based on the contents of the rooms. Casemates were generally filled with rubble or bits of broken bricks. When the foundations were devoid of any artifacts or filling, they may have been covered by vaults, as attested in the Egyptian Delta and Meroitic Lower Nubia (Maillot 2013: 8; Maillot 2014: 790; Malecka-Drozd 2014: 69-96). Conversely, storerooms or storage areas were generally empty, or had objects that inferred their use, such as storage jars.

In addition to the use of a casemate foundation, the Kushites may have included a second storey, a feature which had been in use since the New Kingdom. Evidence for a second storey was argued by Kate Spence (2004) in an analysis where ground plans of houses excavated at Amarna, as well as tomb paintings from Thebes, may confirm the
presence of a second storey. Furthermore, the house of Nakht (K50.1) had column bases on the ground floor found in situ, four smaller bases in the west hall ruins, and seven additional bases found outside the entrance hall (Spence 2004: 125). Based on a comparison between the column bases found in the house of Nakht and those described by H.W. Fairman in the entrance hall of house V37.1, those from the house of Nakht probably originated from rooms above the ground floor. Column bases that did not originate from the ground floor were discovered in at least six houses at Amarna: Q46.1, R46.3, P47.19, P47.24, J49.2, and O50.2 (Spence 2004: 125). Additionally, house T35.17 had pink paint on a rafter that did not match the construction or decoration of the roofing fragments from the ground floor, which would again suggest an upper level to the house (Spence 2004: 125).

At least four of the houses located in the Workmen's Village had painted decorations that did not come from ground floor rooms, as they were located above roofing fragments. House No. 1 Main Street had a fragment of painted plaster above the southern rear room that featured undecorated walls. House No. 9 Main Street had painted plaster that was found above the roofing fragments of the front and rear rooms (Spence 2004: 137). House No. 11 Long Wall Street had multi-colored painted plaster that originated above the entrance hall. The ground floor had distinctly different decoration. House No. 20 West Street contained a fragment of blue painted plaster that was found above the entrance hall and believed to have originated from a rooftop chamber (Spence 2004: 138). These pieces of evidence clearly indicate the presence of a second storey in houses at Amarna. Kemp has also suggested that, due to the amount of rubble found in the excavation and the presence of roofing fragments throughout the remains, house P46.33 had an extensive upper level (Spence 2004: 125).
Assessing the archaeological evidence from Amarna, scholars have argued that examples of two-storied houses can be seen in some of the paintings from the Tombs of the Nobles at Thebes. The representations of the houses in the tombs of Djehutynefer (TT80), Nebamun (TT90), Amenmese (TT254), Ineni (TT81), and Tjay (TT23) (Figs. 81-84) are highly schematic so it is difficult to securely identify the number of stories depicted. However, with windows illustrated well above the door levels and the shape of the dwelling shown to be a square or tall, thin rectangle, the drawings indicate there was an upper level to these houses.

The tomb of Djehutynefer (TT104) shows what can be interpreted as a sectional drawing of potentially a three-storey house (Fig. 85). The thickness of the walls and floors are indicated, including the narrowing of a wall into a parapet at the roof level (Spence 2004: 141; Badawy 1948: 76-79). The lowest level or basement suggested by the lack of windows perhaps represents a workshop where individuals are shown preparing yarn and making bread. Workshops would not have been easily placed on the first floor since that space was presumably reserved for reception hall(s) and an entrance (Badawy 1948: 78). The ground floor, located directly above the basement, portrays Djehutynefer receiving flowers and cakes. The ceilings of this storey also shows two levels. On the left side is the higher ceiling, which is almost twice the height of the basement, and the right side has the lower ceiling (Badawy 1948: 78). Above the ground floor is the first floor clearly located above the ground floor given the presence of a staircase with five stairs used to access it. Although the ceiling is lower than that of the ground floor, there are columns aligning with those of the lower floor.

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13 Although the schematic drawings from the Tombs of the Nobles can be used as a template for how the elite houses in Egypt were constructed, they should be used with caution when considering the Nubian corpus. Given that there are similarities between houses at Amarna and those at the New Kingdom Nubian sites of Sai Island, Sesebi, and Amara West, the schematic drawings do not account for native Nubian architecture such as building E12.11 at Amara West that is circular in design.
level. Four figures are shown carrying various items including food, furniture, and water to Djehutynefer who is shown being fanned by a servant (Badawy 1948: 79). Four final steps from the first floor lead to the terrace where there are furnaces and small granaries or small storage bins (Badawy 1948: 79; Spence 2004: 143, n. 73). All of the staircases seemingly correspond to the levels of the floors and show a thickness in construction and gradient.

Overall, the drawings in the tomb of Djehutynefer (TT104) show structural continuity through walls and columns of an upper floor lining up with the walls and columns of the lower floor, providing structural hierarchy with the columns of upper floors being narrower than those of the lower floors (Spence 2004: 142).14

The use of a second storey is evident in large-scale Napatan and Meroitic architecture as well. Access was provided via staircases and ramps, both internal and external, and the presence of architectural features, such as columns and wall decorations, in the upper strata of the lower levels, indicates the existence of an upper level. Evidence for a second storey can be found at Faras, Doukki Gel, B1200, B1500, B100, B2400, M923, M950, M995, M998, M251-253, M750, Muweis, Wad ban Naga, and Musawwarat es-Sufra (see Chapter 4).

14 Along with drawings from the New Kingdom Theban tombs, Egyptian funerary architecture itself can also be used as a parallel for domestic architecture. The palace façade design, comprised of alternating niches and buttresses that create a paneled appearance, was used in the Early Dynastic Period (Badawy 1948: 67-73). The remains of a palace at Hierakonpolis, discovered in 1969 by Kent Weeks and his team, consisted of a large mud-brick niche-façade gateway extending into a complex (Weeks 1971-72: 29-33). This palace may be the earliest surviving example from Egypt of a monumental secular building using the palace façade design (Weeks 1971-72: 29). The **serekh**, a vertical rectangle comprised of the palace façade design on the bottom and an open square on the top containing the king's Horus name all surmounted by a falcon, may have been a representation of the king residing in his palace (Badawy 1948: 67; Leprohon 2013: 13). The open square on the top of the **serekh** may have been intended to symbolize the plan of a palace (Badawy 1948: 67; Leprohon 2013: 13). A similar analogy was made by Pierre Lacau regarding scenes on false doors, which also have a narrow version of the palace façade flanking the door itself. He suggested that the upper portion of a false door, where the tomb owner sits in front of the table of offerings, represents a window into the house (Lacau 1967: 42-46). Although Lacau's theory has not received universal acceptance, it is certainly an interesting interpretation of the evidence.
Although Napatan and Meroitic rulers did have a tendency toward the adoption and adaptation of Egyptian culture they also maintained traditional Nubian ideas, thereby creating their own unique image. Located about 25 m to the south of the entrance to the religious quarter at Kerma, are the remains of a palatial building dating to the Classic Kerma period (Figs. 86-91). This palace would have replaced the earlier Roundhouse, a circular structure typical of the architecture found at Kerma, in both royal and non-royal contexts. The Roundhouse was a large hut measuring at least 10 m high and constructed of wooden posts and a rounded mud-brick wall that would have supported a conical roof (Bonnet 1992: 614-616). Within the building was a brick wall which delineated a large, 12 m² room, with two adjoining rooms and passages. A building of this type and size dating to the Kerma period has no parallel in Egypt or central Africa; however, similar buildings of later date can be found in Darfur and southern Sudan (Bonnet 1992: 616).

The foundations of the new palace were dug into an area that was rich in material from the Classic Kerma period. The structure was arranged in three distinct sections: the royal apartments in the east, the throne room and administrative buildings in the center, and the storage areas in the west (Bonnet et al. 1993: 3). There was a corridor in the northern portion of the palace which led into an inner courtyard. A second courtyard, rounded in shape, was located behind the inner courtyard, which added to the available meeting space for the building.

The throne room was constructed within the inner courtyard and was approached via a vestibule flanked by small rooms that may have served as archives (Bonnet et al. 1993: 3). Inside the vestibule was a well that contained over 5,000 clay seals, suggesting a high degree of movement of goods. The three large pillars within the throne room suggest a roof height of
approximately 5 m, which is comparable to the large funerary chapels in the necropolis at Kerma (Bonnet et al. 1993: 4). The throne room was actually divided into two sections: the first was at the side and accessed by two separate entrances and the second was where the king would have been seated on his throne atop a dais accessed via a ramp or staircase (see Chapter 5).

In the western portion of the building were the food storage areas, and possibly pens for domesticated animals. There were two silos, measuring approximately 7 m in diameter, with the capacity to store up to 30 tons of grain (Bonnet et al. 1993: 5). Storage areas of this type were utilized in association with the palace by the last kings of Kerma.

Despite the clear Egyptian influence on the palace design, noticeable by the placement of the palace in relation to the religious sector, the entrance corridor and the arrangement of the throne room, exhibit some distinct Nubian features of the building. The palace proportions, the incorporation of rounded spaces, and the irregularity of the walls were distinctly of Nubian character (Bonnet et al. 1993: 5). This indicates that the kings of the Kerma period were aware of the Egyptian palace model, and chose to replicate some of the features such as the location of the building in relation to the religious sector, the entrance corridor, and the layout of the throne room, yet were able to maintain and integrate a Nubian heritage into the royal residence.

The tendency to incorporate local Nubian architectural features did not end with the Kerma Period. After the Egyptians conquered Nubia beyond the Fourth Cataract and established the viceroyalty of Kush during the New Kingdom, building projects continued at an area known as Doukki Gel, or Kom of the Bodegas (Bonnet et al. 1993: 17), which is located about 1 km south of the town of Kerma and was founded during the reign of
Thutmose I. Here large, square residential buildings were constructed and enlarged over the course of their use. By the reign of Taharqa, a pottery workshop had also been established where large quantities of Napatan ceramics were manufactured (Bonnet and Valbelle 2006: 36).

The three temples built in this area were strongly influenced by native Nubian architectural practices, making them a stark contrast to Egyptian architectural traditions. Two of the temples constructed were dedicated to a form of the god Amun. The central temple was dedicated to Amun of Nubia and Amun of Karnak, as evidenced by an inscription of Thutmose IV. The western temple was dedicated to Amun of Pnubs (Bonnet et al. 2009: 95). During the reign of Thutmose III, a reorganization of the defensive system occurred and on the eastern façade, a series of rounded bastions were built reflecting Nubian architectural style (Bonnet et al. 2009: 95; Bonnet 2014: 91).

A circular temple at Doukki Gel, which was destroyed by fire during the military incursions of Psamtik II and rebuilt in the reign of Aspelta, was an important building in the religious quarter. This building was rebuilt in the second half of the New Kingdom using the jaloos method of construction (see Chapter 6). Rounded bastions were found side by side along the outer wall (Bonnet et al. 2009: 98; Bonnet 2014: 91). Thutmose III was avid in his construction of rounded bastions around the entire precinct, thus restricting the development of the suburban area. His motivation for adding extra reinforcement to the precinct remains unclear. The use of the jaloos method and wood was already in use for military structures, which may have been his inspiration (Bonnet et al. 2009: 104; Bonnet 2014: 91). When the fortified town at Doukki Gel was established, a large, specialized workforce was needed for its construction. And given the scale of the Kerma period settlement, the workforce was

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15 For more information on the jaloos method of construction, see Chapter 6.
readily available at the site (Bonnet et al. 2009: 105). Using traditional Nubian construction methods, materials, and styles not only enabled the Egyptians to establish a new fortified community quickly, but allowed the Nubians to continue their building traditions as well.

I.B. Aksum

The Aksumite Kingdom spanned an area of ancient Ethiopia within the Tigrai region near the base of the Adwa mountains to the Akkele Guzai in ancient Eritrea (Fig. 92). Aksum, with relation to Meroe, has typically been associated with the fall of the Meroitic Empire upon the invasion by the first Christian king of Aksum, Ezana, in the middle of the fourth century AD. While there has been debate as to the exact nature of the campaign of Ezana and the fall of Meroe, the presence of a victory inscription at Meroe by the Aksumite king is strongly suggestive of his conquest. An Aksumite graffito discovered at Kawa indicates that the Aksumites also traveled down to the Third Cataract.

Aksumite culture can be dated back to the first millennium BC, which has been referred to as "Proto-Aksumite" (Bard et al. 2002: 31). This period has been established based on stratigraphic evidence and ceramic seriation. Proto-Aksumite pottery assemblages, as found in both cemeteries and settlement contexts, have characteristics of Aksumite ceramics, but with distinct stylistic and decorative elements. The stratigraphy confirms that this ceramic tradition is the earliest Aksumite pottery phase. Additionally, based on radiocarbon dating, the Proto-Aksumite Phase dates to ca. 384-32 BC (Bard et al. 2002: 31). The presence of massive stone masonry, large stelae up to 5 meters in height, and large pit-graves, the settlement at Ona Nagast, located at Bieta Giyorgis, Aksum in Tigrai, northern Ethiopia, had a hierarchical society that was fully capable of large-scale construction
projects. There is also an indication of contact between the Proto-Aksumite people and Ptolemaic Egypt, as evidenced by over 200 Hellenistic beads in a Proto-Aksumite tomb (Bard et al. 2002: 32).

Early contact with Nubia, particularly the area of Kassala in eastern Sudan, and the Aksumite region is tentative (Fig. 93); however, the presence of some small finds may indicate a developing relationship. In Tomb 6 at the cemetery of Ona Enda Aboi Zewgé (OAZ), the excavators discovered a conical bronze seal with a crescent moon or sun disc inscribed on it, both symbols found in South Arabian and Meroitic iconography (Bard et al. 2002: 34; Fattovich 2010: 158). The sites Mahal Teglinos at Kassala and Kerma, also had fired clay stamp seals with geometric designs on the ends (Fig. 94 A-C, Fig. 95). These seals were probably used for communication between Kassala and Kerma (Fattovich 1991: 45; Bard et al. 2002: 35; Fattovich 2010: 155). It is possible that the seal from OAZ could signify contact between Kassala and Proto-Aksumite period at Aksum. Interestingly, conical clay stamp seals were also discovered in domestic contexts at Meroe (Bard et al. 2002: 35). Although the seals found at Meroe are much smaller than the one from OAZ, they were similar in form and probably in function as well.

In addition to the stamp seals, there was a similarity between Proto-Aksumite, Napatan, and Meroitic grave goods and subsidiary burials (Bard et al. 2002: 35). Over the shafts and on platforms of Proto-Aksumite graves at OAZ, rectangular and hemispherical ceramic basins were found (Fig. 96). Similar types of basins have also been discovered in royal Napatan funerary assemblages (Bard et al. 2002: 36). The presence of foreign ceramic fragments indicates that Mahal Teglinos was an integral component within the complex network of connections spanning Egypt and Nubia to the Horn of Africa and Southern Arabia.
Subsidiary burials, potentially human sacrifices, were found at OAZ I and VII. The bodies from both burials had minimal grave goods, a single pot from OAZ I and bronze bracelets from OAZ VII, and were non-intrusive, based on the stratigraphic evidence. Subsidiary burials, which have been interpreted as human sacrifices, were also found in elite/royal tombs beginning in the Classic Kerma period (Reisner 1923; Emery and Kirwan 1938; Dunham 1963; Bard et al. 2002: 37). Burials of this type were located at Kerma, a Late Meroitic tomb at West Meroe, and at Ballana and Qustul (Bard et al. 2002: 37). These finds suggest symbolic behavior in elite Proto-Aksumite burials that has also been found in Napatan and Meroitic elite burials. This suggests a widespread use of certain funerary symbols from Kush to Ethiopia/Eritrea in addition to contact between Upper Nubia and Ethiopia/Eritrea during the Proto-Aksumite period (Bard et al. 2002: 37).

The site of Yeha, located in Tigrai in northern Ethiopia approximately 25 km northeast of the modern town of Adwa, has three archaeological assemblages attributed to this area (Fattovich 1977: 73; Fattovich 2009: 278; Fattovich 2010: 147). The first phase (dated prior to the 5th century BC) is characterized by red-orange pottery that predates any architectural remains. The second assemblage (5th - 4th centuries BC) is characterized by red and black pottery that is contemporary with the podium and façade of the "palace" at the site of Grat Ba'al Guebri on the northern side of Yeha (Fattovich 1977: 73; Fattovich 2009: 280; Fattovich 2010: 152). The third phase (4th - 3rd centuries BC) is characterized by a brick-like red pottery that appears to be contemporaneous with a later restoration of the palace (Fattovich 1977: 73). Seriation performed on pottery found in tombs located at Daro Mikael
in eastern Yeha, supports these three phases. There was a large settlement at Yeha consisting of two monumental temples (Fig. 97) and a cemetery. These shaft-tombs contained an abundance of luxury goods, including items imported from Nubia, and the only attestation of zoomorphic bronze seals with personal names (Fattovich 2010: 157). In Tomb 12, a stone vase was discovered which was similar to stone vases discovered in royal tombs at Napata and Meroe (Fattovich 1982: 77).

Although contact between Ethiopia and Southern Arabia can be well attested through architectural and artistic features, the two small temples at Haoulti, in the Aksumite area, bear more resemblance to Temple M292 at Meroe than to temples in Southern Arabia. Temple M292 had an outer wall, which is common in Egyptian and Nubian religious architecture, but is not found in Southern Arabian religious architecture (Fattovich 1982: 81). This would indicate that by the time Temple M292 was constructed (ca. 1st century AD), Meroe and the Aksumite Empire had already established contact through possible trade relations. The throne and both of the statues discovered at the Halouti temple have some Meroitic features, such as the garment portrayed on the statues as well as the long stick held by the female figure. This stick is reminiscent of the royal emblem of Egypt and Nubia which was also used by Kushite queens (Fattovich 1977: 76; Fattovich 1982: 77). Also at Haoulti, two blue faience amulets, one being a figure of Ptah-Patecus16 (Fig. 98) and the other a head of Hathor with a back pillar, were found in a pre-Aksumite assemblage. These objects were

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16 Ptah-Patecus (also Ptah-Pateco) (Figs. 99-100) is manifestation of the Egyptian god Ptah as a dwarf. He is shown naked with his hands on his hips. He has a shaved head and face, a bulging belly, is bow-legged, and pigeon-toed (Wilkinson 2003: 123; Lucas 2004: 130). Herodotus was the first to make note of this version of Ptah when he wrote that the temple at Memphis contained a statue of the god as a dwarf (Herodotus Histories, Book III: 37; van Dijk 2002: 324; Wilkinson 2003: 123; Lucas 2004: 130). For further discussion on Ptah-Patecus and his association with Bes, Ptah, Min, Osiris, and Sokar, see: Lucas 2004: 127-148.
similar to amulets found in royal tombs at Napata and Meroe (Fattovich 1982: 77; Fattovich 2010: 165).

Additional pieces of archaeological evidence have been found at other sites, which also suggests contact between Nubia and the Aksumite region. One such object is a carnelian amulet of Harpocrates with a necklace and double uraeus, a characteristic of the Meroitic kings, was found at Matara, Eritrea in a pre-Aksumite level (Fattovich 1982: 76). At Addi Galamo there were four bronze cups discovered in a hole that also contained Southern Arabian and Aksumite objects. Two of these cups were decorated with engraved figures; one with frogs on papyri on the outside of the cup and the other with bulls and a rosette on the inside of the cup (Fattovich 1982: 76). In addition to the Nubian artifacts found in Ethiopia/Eritrea, the remains of an Aksumite throne were found in Nubia at the confluence of the Nile and Atbara Rivers, undeniable evidence of Aksumite-Nubian contact (Fattovich 1982: 77).

Given that Meroe was located at the intersection of five main trade routes - the Nile route which is along the Blue and White Niles, the Butana route, the Sinkat pass route, the Bayuda route, and the Korosko route - Meroitic rulers would have maintained control over trade along these paths. However, Yeha was located at the intersection of five other trade routes - two from the Sudanese lowlands, one from Western Ethiopia, and two along the Red Sea - which would have provided the Aksumite rulers with control over trade along the Red Sea coast (Fattovich 1982: 84). Rivalry would have been inevitable between the rulers of Meroe and Aksum to control all routes leading into the African interior. This impacted the fall of Meroe due to continued Aksumite raids and the destruction of Meroe itself in the third century AD.
While the majority of the evidence to suggest contact between the Aksumite Empire, Nubia, and Southern Arabia is based on small finds, architectural similarities can be found at Ona Nagast. At this site, there are buildings with long, narrow rooms devoid of doorways or windows. These rooms have yet to be positively identified either as storerooms or casemate foundations (Fattovich and Bard 2001: 16; Bard et al. 2002: 32), but this type of architectural design has been identified in several of the Meroitic palaces (discussed in Chapter 4), and it may indicate a strong relationship, involving an exchange of cultural ideas and building techniques, between Kushite Nubia and the Aksumite empire.

The transfer of goods and ideas between the Arabian Peninsula, the Aksumite Empire and the Meroitic Empire may be due to a group of professional Sabean tradesmen known as grbyn (Wolf 2014: 358). These grbyn travelled from the Arabian Peninsula into the Abyssinian highlands and potentially into Meroitic Nubia. These tradesmen were also considered to be highly qualified builders, architects, and urban planners. They were also awarded high status in the Kingdom of Sheba (Wolf 2014: 358), a polity centered in northwestern Yemen.17

The Great Enclosure at Musawwarat es-Sufra (Fig. 101) is unquestionably one of the most distinctive buildings in Nubia. It has a clear religious function evidenced by images of deities, in particular the god Apedemak, throughout the building and its primary construction is stone rather than mud- and burnt-brick. The most interesting thing about the Great Enclosure is its design, as there are no parallels within Nubia, or any of its surrounding areas.

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17 People from the Arabian Peninsula, possibly originating from the Kingdom of Sheba (the Hebrew Kingdom of Saba’), began settling in the northern highlands of modern-day Ethiopia and Eritrea at the start of the first millennium BC (Fattovich 2010: 147, 163-164; Hatke 2013: 18). During the eighth century BC, the Sabaeans began to impart their culture on the northern Horn of Africa through their writing system, language, religious beliefs, art, and architectural designs (Fattovich 1995: 71; Phillips 1997: 442; Fattovich 2010: 164; Hatke 2013: 19). After the fall of the Kingdom of Sheba in the 4th-3rd century BC, the Sabaeans colonists established a local kingdom in Tigray with Aksum as their capital indicating a continuity of their particular culture (Fattovich 2010: 147).
However, this structure may be the end result of the amalgamation of the influence of multiple cultures on a single building. The design of the Great Enclosure is not linear, as would be expected from Egyptian-, Nubian-, Greek-, or Roman-style religious buildings. Instead, the central terrace is organized in a concentric fashion with vestibules and corridors leading off of the main sanctuary (Wolf 2014: 360-361), and may have been influenced from contact with the Aksumite region.

This terraced layout can be found in buildings from the Aksumite region such as the Palace of Dungur in Ethiopia (Figs. 102-104), or the palatial elements of structures B, C, and D at Matara (Figs. 105-106) (Fattovich 2010: 166; Wolf 2014: 361). These buildings have an approximately square plan for the central building, and an overall concentric layout, with the main building in the center. The areas extending from the central portion of the building would have been connected via ramps or gradual staircases (Wolf 2014: 361-362; Fattovich 2014: 103). Although the buildings at Dungur and Matara post-date the Great Enclosure, this type of architecture was presumably used on large-scale sacred and secular architecture prior to these two buildings (Wolf 2014: 364). Unfortunately, proto-Aksumite palaces have never been extensively published and any earlier buildings at Dungur and Matara have yet to be excavated.

The concentric design of the Great Enclosure may also have served a religious purpose as well. These types of temple sanctuaries would have been places for the sacred and the secular. It was where the royal family, along with the gods, would have been venerated, thereby creating a unification between the religious cult and the royal cult, a feature evidenced in architecture from the Aksumite region (Wolf 2014: 379). This could be why Complexes 200 and 500, located completely within the Great Enclosure, had a secular
function within the religious building. Similarly, the prevalence of the god Apedemak at Musawwarat es-Sufra demonstrated the close relationship between the god and the Meroitic kings. On reliefs throughout this temple, there were scenes of Apedemak actively participating in the coronation of the king (see Chapter 5).

II. Nubia and the Mediterranean World

Contact between Nubia and the Mediterranean World began with the conquest of Egypt by Alexander the Great and the subsequent Ptolemaic period. The introduction of the Ptolemaic period brought Greek language and elements of Greek culture including art and architecture to Egypt. These aspects were eventually transferred to Nubia where Greek was probably understood and used by the ruling and merchant classes in both Egypt and Nubia (Lobban 2004: 341). Ptolemy I (305-282 BC) began the construction of the library of Alexandria and when his son Ptolemy II (ca. 285-246 BC) succeeded him, Ptolemy II expanded the library and enhanced trade throughout the Mediterranean and down the Red Sea coast that included stops at Meroitic ports for the acquisition of elephants for military use (Lobban 2004: 342). These initial connections between Hellenistic Egypt and Meroitic Nubia eventually evolved into Greeks traveling to and living at Meroe, as evidenced by writings in Book V of Pliny the Elder's (AD 24-79) *Natural History*, thus bringing their culture and ideas to Meroe. While Greek influence in Nubia waned toward the end of the Ptolemaic period, Plutarch attested that Cleopatra VII could speak Meroitic ("Ethiopian"), as well as several other "barbarian" languages including Hebrew, Aramaic, Arabic, Median, Persian, Latin, and the language of the troglodytes (Chauveau 2002: 10; Lobban 2004: 344). Her ability to speak these languages was a distinctive trait as most of the Ptolemies did not even
learn Egyptian, thus preventing them from speaking directly to or with their citizenry (Chauveau 2002: 10).

The range of contact between Nubia and Rome occurred from the 1st century BC to the early 3rd century AD. During this time, the two cultures shared a common frontier, known as the Dodecaschoenus, which stretched 120 km south of Aswan to el-Maharraqa in Nubia. As with contact between Nubia and Egypt, and later with the Ptolemies, relations with Rome focused primarily in Lower Nubia. In 30 BC, C. Cornelius Gallus, the new Prefect of Egypt selected by Augustus, appointed a Roman client ruler, or tyrannos, for the Triacontaschoenus, an area in Lower Nubia. After this appointment, Gallus required the local Meroitic rulers to declare Roman suzerainty and pay tribute to Rome (Eide et al. 1996: 691, 695-699; Burstein 2004: 16).

A war between Meroe and Rome ensued shortly thereafter following the overthrow of Egypt by the Caesars in 25 BC. The Nubians in the region of the Triacontaschoenus rebelled against the heavy taxation imposed by Rome by invading and vandalizing the Egyptian areas of Syene, Elephantine, and Philae (Sackho-Autissier 2010: 73). In order to provide support to the rebels, Meroitic king Teriteqas set out on a campaign with his troops. Unfortunately in the autumn of 25 BC the king died after reaching Dakka and his successor, Queen Amanirenas, assumed command of the army and began negotiations with Rome (Sackho-Autissier 2010: 73). Since the Meroitic language has not yet been fully deciphered the conflict has been presumably documented on a Meroitic stela of Amanirenas and Akinidad found at Hamadab by John Garstang in 1914 (Sackho-Autissier 2010: 73; Wolf and Rilly 2010: 160). During the peace negotiations, the newly appointed third Roman Prefect of Egypt, Caius Petronius, set off to Nubia in the direction of Napata. He returned to Egypt with
spoils although he did not succeed in his attempted takeover. The result of the mediation between Meroe and Rome was the Treaty of Samos, drafted in 21 BC. Under this Treaty, peace did prevail, as evidenced by the presence of Kushite pilgrims to Philae and Roman goods imported into Kush, such as amphorae, jewelry, household furnishings, and decorative objects. Many of the objects were discovered at royal and elite residential buildings and funerary sites, an indication that the objects were gift exchanges by way of diplomatic relations between the two powers rather than trade (Burstein 2004: 17).

Despite the Treaty of Samos establishing Nubia's status as a "pseudo-province", during the ensuing centuries of contact between Nubia and Rome relations were not always peaceful. One such example of this friction were murals discovered by Garstang at Meroe in Temple M292 located in the northern section of the Royal Enclosure. The first of the three captives is a light-skinned man with a beard wearing a blue, thigh-length striped garment (Fig. 107). He is shown wearing a helmet which has been identified as a Roman helmet (Shinnie and Bradley 1981: 170). The other two prisoners were not Romans. M292 was also the location of the famous bronze head of Augustus (Fig. 108) discovered underneath the entryway to the building (Garstang and Sayce 1912: 51). This would have allowed anyone entering and exiting M292 to trample over the Roman ruler's head.

One of the most notable examples of Mediterranean influence on Meroitic architecture at Meroe itself is the Royal Bath or Water Sanctuary (M95-194-195) located in the southwestern corner of the Royal Enclosure (Figs. 109-110). It was originally excavated by Garstang during his 1911-1913 field seasons, and since 1999, excavations have been conducted by the German Archaeological Institute under the direction of Simone Wolf. M195 is located between M95 and M194; this area of the Water Sanctuary consists of a deep
basin (7.25 x 7.15 x 2.5 m) with stairs leading into it from the southeast corner (Török 2011: 141). Around the upper portion of the basin are carved sandstone polychrome painted lion- and bull-headed figures (Fig. 111). Along with the heads, there were medallions with combined ankh and $\delta$-signs, medallions with just an ankh, inlays of Apedemak on the crescent moon, and reliefs showing female busts, all made of faience (Fig. 112). Above this series of sculptures and reliefs were paintings depicting elephants marching to the right.

In addition to the decorative elements found along the upper level of the basin in M195, Garstang and his team discovered a cachette of sandstone under life-size statues and column drums within the Water Sanctuary. These statues had characteristics that were similar to Hellenistic statuary. Featuring short, straight locks of hair combed toward the forehead surmounted with a broad fillet and the figures drinking from a shared vessel which was a common element in Greek and Etruscan funerary monuments. However, drinking vessels have also been associated with the motif of drinking milk as found in Kushite art (Török 1997b: 79) (see Chapter 5).

Sandstone basins were also discovered under building M950 in room complex M954 and M954a which predated the construction of M950. The earlier building was destroyed during the late first century BC/early first century AD and the new building was constructed over the room complex which was made accessible to M950 (Török 2011: 128-129). Originally there were two ovoid basins found in M954a; however, during one of the alterations, one of the basins was covered with a partition wall. The basin in M954 was square in shape, but was eliminated when a northeast-southwest wall was constructed around the same time as the rebuilding of M954a (Török 2011: 129). Due to astronomical markings and Early Meroitic cursive graffiti containing calculations, Garstang suggested the room
complex, M954-954a-964, was an "observatory" (Garstang, Phythian-Adams, Sayce 1914-1916: 12). The astronomical markings and calculations might have been used to calculate the hours of the day and night, thus measuring the seasons and determining the date of the inundation. These basins may have been used to store "pure" water from the inundation which could be used during religious ceremonies throughout the year. This was a common practice in temples and private houses in Hellenistic and Roman Egypt (Török 2011: 131), which was then transferred to Nubia. Additional basins have also been discovered at Napata where two basins, the larger measuring 2.65 x 1.14 m and the smaller measuring 1.85 x 0.90 m were constructed from sandstone and contained an outlet, were located (Török 2011: 132). In the building from which the water was supposed to originate (B2200), the team also discovered a "channel" with watertight plastering that would have directed the water to the exterior of the building. It has been suggested that this may indicate a ritual function (Török 2011: 132). The stone-lined basin found at Meroe in M295 (see Chapter 4) may have served a similar function.

The sphere of Mediterranean influence on Nubian architecture can be observed by the use of the peristyle house type evident in Houses A-D as well as buildings M990, M995, M996 and M998 at Meroe. The courtyards were shifted from the center of the buildings, and the presence of pillars or column bases in room M97 in building M990, M929 from building M996 as well as two M906 rooms in M998 are all reminiscent of the oikos\(^{18}\) of Hellenistic townhouses and a tablinum\(^{19}\) in Roman houses. These types of rooms opened either from the western or northern side of the courtyard (Török 1997b: 224). This type of house

\(^{18}\) The oikos was the basic structure of a Greek household traditionally consisting of a peristyle central courtyard around which the remaining elements of the house were arranged.

\(^{19}\) The tablinum was a room located on one side of the atrium, opposite to the entrance, and opened at the rear to the peristyle courtyard.
arrangement is known from the Hellenistic sites of Priene in modern-day Turkey and Dura-Europus in present-day Syria (Török 2011: 133).

The design incorporates an entrance corridor leading into a central courtyard located at the southeast corner of the dwelling. A single or double reception room is located to the left of the corridor which then opens to a central courtyard from the south. The columns composing the peristyle court found within these houses were constructed from stone and could have various styles of capitals, such as Ionic, Corinthian, or campaniform (Török 2011: 133). House structures based on the peristyle format traditionally dated from the first to fourth centuries AD. The Nubians were probably exposed to this type of house arrangement from their contact with Hellenistic Egypt, particularly Greek-influenced cities such as Alexandria.

The architecture of Alexandrian Egypt developed into a true amalgamation of Egyptian traditional architecture with the addition of Greek and Roman elements. This type of architectural program began its development during the reign of Ptolemy II Philadelphus who incorporated Greek and Egyptian architecture at the Arsinoeion where he erected an Egyptian obelisk (McKenzie 2007: 41, 74). Greek and Egyptian architectural traditions became well established during the second half of the third century BC. Ptolemy III Euergetes I blended Greek and Egyptian features at the Serapeum in Alexandria and at the royal cult sanctuary at Hermopolis Magna (McKenzie 2007: 74). Although the Ptolemaic kings spent most of their time in the capital, they also occasionally resided in Memphis where they constructed a palace that replaced the Palace of Apries (Nielson 1999: 130). Park and the lake features were probably incorporated into the new Memphite palace and may have influenced the construction of the Alexandrian palace near water at Lochias.
Furthermore, the inclusion of a monumental forecourt, main avenue, with accompanying official hypostyle halls were all elements that were characteristic of Egyptian palatial architecture, which were then incorporated into Ptolemaic architecture (Nielson 1999: 31).

The Ptolemaic palace at Alexandria was located on the promontory of el-Silsila (akra Lochias), and to the southwest of the area (Fig. 113). The architectural remains from this area indicate there were monumental structures that were expanded by successive Ptolemaic kings with Greek architectural decoration that included expensive mosaic floors and tiled roofs (Nielson 1999: 131; McKenzie 2007: 68). Although the palace had a peristyle hall, an element typical of palaces from Alexander the Great's homeland of Macedonia, Ptolemy II Philadelphus included a banqueting tent that was an eastern, rather than a western Greek or Macedonian architectural element. Tents used for feasting and entertainment are still used in Egypt today (Nielson 1999: 134; McKenzie 2007: 49).

In a 1991 study, Hinkel attempted to apply the Egyptian cubit to Meroitic architecture, particularly temple architecture.\(^{20}\) He proposed that Nubian architecture dating to the Egyptian Middle and New Kingdoms was based on the Egyptian cubit (Hinkel 1991: 220), and determined that premise to be true in buildings from Mirgissa, Kerma, and Semna East (Hinkel 1991: 221). However, Hinkel also found that buildings dating to the Meroitic period were not constructed based on the Egyptian cubit but rather on other planning principles, probably acquired due to contact with the Greco-Roman world. The Meroitic temple was based on the Roman concept that the "perfect" number, on which all buildings should be constructed, was 16, adhering to measurements from the human body (Hinkel

\(^{20}\) The Egyptian cubit is generally recognized as measuring 52.5 cm, Hinkel states that the cubit measurement he used equaled 52.3 cm (Hinkel 1991: 220). Although this is not a statistically significant difference, it is worth noting when attempting to recreate his calculations. For the calculations in Egyptian cubits and the Roman module factor applied to the Nubian palace corpus, see Table 3.
1991: 221). When Hinkel measured Meroitic temples from Musawwarat es-Sufra, Naga, Matruqa, Meroe, and Jebel Barkal, he discovered they were all based on the factor of 16. This led him to conclude that this new system was utilized for local Meroitic gods, whereas the temples built based on the Egyptian cubit were dedicated to Egyptian deities during the Meroitic period. While this study provides great insight into the construction of sacred buildings, no parallel study exists for Nubian secular architecture. However, it can be logically presumed that the non-religious buildings would have been designed based on the same principles.

The Great Enclosure at Musawwarat es-Sufra has evidence of Ptolemaic influence in both the architectural elements and mason's marks. Over 7500 marks have been recorded thus far and some of them resemble letters of the Greek alphabet (Török 2011: 214). The presence of Greek mason's marks as well as Greek systems of measurement indicates that Meroitic kings and queens more than likely employed Greek architects and artists for the construction of important building projects. These architects and artisans did not simply utilize ideas from Ptolemaic Egyptian architecture, they also incorporated traditional Egyptian and Meroitic ideas thereby creating an Egyptian-Hellenistic-Meroitic design (Török 2011: 215).

The amalgamation of designs is evidenced through architectural elements found in the inner front colonnade of Building 101-102. Column bases 8 and 9, as well as an unfinished column base from room 108, were all decorated in high relief showing figures of a lion and an elephant. A lion was associated with the Nubian god Apedemak, and a lioness with the goddess Hathor and Tefnut who appear on column reliefs from the Apedemak Temple at the site (Török 2011: 228). On the western and southern interior walls of the
Apedemak Temple, the god is shown leading a lion and an elephant on a leash. The eastern wall shows two elephants and three prisoners tied to a cord, held by the god Sebiumeker. The elephants and prisoners all face the entrance indicating the god is presenting them to the king and granting him power over these elements when he enters the sanctuary (Török 2011: 229-230). In reliefs on some of the columns, Amesemi, Apedemak's consort, is shown standing on an elephant. An elephant guards Apedemak's throne, and Sebiumeker is also shown riding an elephant. Next to the scene with Sebiumeker, Apedemak is depicted riding a lion as it devours a hapless prisoner. These reliefs confirm the influence on both the architectural and artistic program because the idea of the king being triumphant over his enemies, as well as having magical power over the animal world were integral elements in Egyptian and Nubian royal iconography.

The most notable building at Naga which demonstrates the influence of the Mediterranean World on Meroitic architecture is the so-called "Roman Kiosk" located near the Apedemak Temple (Fig. 114). The kiosk has T-shaped pillars along with engaged half-columns on the front of the building and on the shorter and longer sides, there are four pillars with engaged half columns (Török 2011: 304). Architectural elements again show an amalgamation of cultural influences, particularly Egyptian and Hellenistic.

The lintels atop the doorways show three layers of winged sun discs along with a uraeus on either side of the disc. On the uppermost level of the lintel is a line of uraei with a sun disc atop their heads, reminiscent of Egyptian architectural elements and themes (Fig. 115). While the main doorways were decorated with purely Egyptian-style iconography, the windows were arched, making them indicative of Roman window design. The pillars and engaged columns have unadorned bases and shafts as seen on Roman-style columns (Török
Two types of capitals were used in the kiosk. The first was a composite capital with flaring vegetation at the top found on the eight half-columns of the four corners. The second type used was an Alexandrian Corinthian capital, again with flaring vegetation and a collar of acanthus leaves, a characteristic of late Hellenistic Alexandrian capitals (Török 2011: 306) (Fig. 117).

Finally, at Hamadab, located 3 km south of Meroe, the joint German and Sudanese team from Humboldt University of Berlin, the University of Shendi, and NCAM have been excavating the town site since 2001. Hamadab was originally excavated by Garstang in 1914 at which time the Stela of Prince Akinidad was discovered in front of a temple called M1000, now designated as H1000 (Wolf and Nowotnick 2006: 257; Nowotnick et al. 2014: 7) (Figs. 118-119). North of H1000 the team discovered substantial building remains composed of mud-brick just below the surface (Fig. 120). The remains were oriented northeast to southwest and separated by narrow streets measuring approximately 1 m. The buildings were structured as a bipartite construction which was a well-known arrangement of settlement architecture in the Middle Nile Valley since the Kerma period (Wolf and Nowotnick 2006: 258; Nowotnick et al. 2014: 2). The buildings probably had multiple functions and served as residential areas, household units, workshops, and public areas. The rooms contained deposits of ash, sand, and a silty material along with fireplaces and cooking pots (Wolf and Nowotnick 2006: 258; Nowotnick et al. 2014: 9-10). While some of the walls are only one brick thick, others were much thicker and therefore might have supported an upper storey.

Based on the structure of the site with regard to the arrangement of the buildings, narrow streets, building materials, and surface finds, this non-royal urban Meroitic settlement developed over a long period of time. The abundance of Meroitic fine wares indicates that a
higher social class lived at Hamadab, and the presence of archer's looses and iron slag heaps suggests there were armed forces there as well (Wolf and Nowotnick 2006: 260). The overall structure of Hamadab is indicative of Greek and Roman insulae, which was a type of multi-storied apartment building that housed all classes of citizens of the town. Additionally, the placement of temple H1000 at the end of a processional way, which presumably connected it to buildings in the northwest sector of the site has been noted in Roman architecture from Egypt and the Near East. It is reminiscent of the via praetoria found in Roman urban settlements (Wolf and Nowotnick 2006: 261; Nowotnick et al. 2014: 3). This avenue would have been located in urban settlements and military camps which would have led visitors from the entrance to the religious and administrative center of the town located at the end of the avenue. Annex rooms, as found in H1000, were not traditionally associated with Meroitic temples, which could also support this interpretation; however, there is no evidence that the Upper Town of Hamadab served as a military stronghold (Wolf and Nowotnick 2006: 261; Nowotnick et al. 2014: 3).

Evidence for Mediterranean influence on Nubian palatial architecture can be observed, especially at the primary sites of Napata and Meroe. Palace B1500 at Napata was constructed for Natakamani, a Meroitic Nubian ruler contemporary with Augustus. Although the overall layout of the palace resembles that of the palaces at Wad ban Naga, Meroe, Muweis, and B100 at Napata, some new elements were incorporated into the building, probably a reflection of what was fashionable at the time (Roccati 2004: 385). An example is the presence of lion pairs sculpted specifically for this building. It is possible that they were inspired by the Prudhoe lions that flanked the rear entrance of B1200. B1500 which also showed evidence of Hellenistic architectural influence that had not yet been incorporated into
Meroitic architecture (Roccati 2004: 305). The column capitals that were recovered at the exterior of the building were ornately decorated and reminiscent of Greek Corinthian columns. The columns found at the interior of the building had papyri-form capitals and delineated a peristyle hall located on two floors as seen in Hellenistic exterior facades (Sist 2006: 475; Roccati 2010: 96).

The exterior faience decorations, discovered scattered around the perimeter of the building, also showed signs of Hellenistic motifs. Medallions appear to have been placed at a certain height in an alternating pattern of a lion, possibly Apedemak, grasping a crescent moon and a floral decoration with an incised ankh and $\mathcal{S}$-sign combination (V17) (Fig. 121) (Sist 2006: 476; Roccati 2010: 96). Other medallions discovered had representations of feminine busts carved in raised relief (Fig. 122). The figures' faces are slightly raised toward either shoulder with the eyes looking upward and the hair shown in heavy curls that are held in place with a crown that is suggestive of Alexandrian statuary (Sist 2006: 476). B2400 also exhibits evidence of Hellenistic influence, particularly with the design of the columns. The columns were of Greek Ionic style and formed a peristyle hall (Sist 2006: 479; Roccati 2010: 95). Despite both buildings having Hellenistic elements, it is unlikely that they date from the same period or had the same function (Roccati 2010: 96).

The palaces located within the Royal Enclosure display Hellenistic elements regardless of their orientation to the enclosure walls. M294 and M295 have main floors placed above a podium type of structure, similar in manner to B1500. The interior walls of M295 bear a closer resemblance to levels III-V of B1200. The water tank discovered in the southern half of the building was similar in shape and orientation to the basin of the Water Sanctuary. Additional tanks were found in M621 (Garstang and Sayce 1912: 46; Török
1997b: 175), M932 (Garstang, Phythian-Adams, Sayce 1914-1916: plate VII; Török 1997b: 201), and M923 (Garstang and George 1914: 14; Garstang, Phythian-Adams, Sayce 1914-1916: 3; Török 1997b: 198) mimic the layout of the tank in M295. These two tanks had cultic functions as indicated by a cartouche-shaped depression, which is reminiscent of the ovoid basins found on Meroitic offering tables in the middle of the tank in M621 (Török 1997b: 175; Török 2011: 128).

III. Concluding Remarks

The presence of foreign influence on Nubian culture can certainly be recognized in decorative arts such as sculpture, architectural design and decoration, as well as religious and royal ideology. However, the Nubians managed to incorporate what they had learned from the Egyptians, Aksumites, Greeks, and Romans, and develop their own native style which reflected their own worldview. And even though there is not an abundance of artifactual or architectural evidence for Nubian influence on her neighbors, there is no doubt that Nubia was an important and adaptable civilization within the ancient world.

As posited at the beginning of this chapter, it is undeniable that the Egyptians impacted the Nubians even after they no longer held control over Kush. Although the degree of influence ranges from the incorporation of Egyptian gods into the Nubian pantheon with Amun being raised to a supreme deity associated with kingship, the use of Egyptian hieroglyphs, and paralleling non-royal architecture at Amarna in the structures at New Kingdom Nubian settlements such as Sai Island, Sesebi, and Amara West (see Chapter 2), the Nubians were able to maintain an established native building tradition.
One of the primary issues with making connections between Nubia and the Aksumite Empire is the lack of architectural remains dating to the Napatan period. The small finds and evidence for human sacrifice can be problematic when establishing connections between the two cultures since these things span many centuries and locations. The architectural evidence from Matara and Dungur post-dates the Meroitic period. Terraced layout, square plan of the central building, an overall concentric layout with the main building in the center, and the areas extending from the central portion being connected via ramps or gradual stairs can clearly be seen in both the Great Enclosure at Musawwarat es-Sufra, the Palace of Dungur, and structures B, C, and D at Matara. Since this type of architecture was presumably used on large-scale sacred and secular architecture prior to the construction of these buildings at Dungur and Matara, these types of structures could easily have impacted Meroitic architecture. It remains unclear whether or not Aksumite domestic architecture impacted Napatan domestic architecture given the lack of extant building remains.

The Mediterranean World transmitted cultural and architectural ideas to Nubia, particularly during the Meroitic period, through Egypt and through direct contact. Stylistic influences such as Alexandrian Hellenistic style column capitals on the Kiosk at Naga, medallions showing females busts on the exterior of B1500 at Napata, and Mediterranean-inspired statuary in the Royal Baths at Meroe illustrate the contact between Nubia and the Mediterranean World. Architectural influences on the Meroitic palaces in particular is also evident. A Hellenistic governor's palace at Dura-Europos, the "Redoubt Palace", was constructed in the mid-3rd century BC (Fig. 123). The "Redoubt Palace" bears resemblance to palaces at Jebel Barkal, Wad ban Naga, Meroe, and Muweis, and may have been one of the Hellenistic palaces to influence the design of the Meroitic palaces.
Chapter 4: Excavation Histories of Proposed Napatan and Meroitic Palaces: An Introduction to the Study Corpus

Despite scholarly interest in Napatan and Meroitic architecture it remains problematic to examination because little has been done to provide a cohesive picture of the royal residences. In the past, more attention has been given by scholars to the religious landscape, such as the temples and the tombs, and little work has been focused on secular architecture.

Some of the most comprehensive work about Meroitic architecture was written by William Adams (1984), Ahmed M. Ali Hakem (1988), Friedrich Hinkel and Uwe Sievertsen (2002), Uwe Sievertsen (2015), and Marc Maillot (2013, 2014, 2015). Many proposed royal residences have been found at sites throughout Nubia dating to the Napatan and Meroitic periods.

Given that palaces are important elements within the urban landscape of a city, those dating specifically to the Napatan and Meroitic periods will be the focus of this chapter. Over the years, scholars have used the term *palace* to define any large-scale domestic building. For this chapter the classification of these buildings as palaces will be accepted, as the aim hereby is to present the buildings as they are currently understood. The validity of the buildings' identification as palatial structures will be ultimately assessed in Chapter 7.

I. Napatan Palaces

I.A. Jebel Barkal: B1200

The site of Jebel Barkal, ancient Napata, is located approximately 325 km north-northeast of Khartoum, and is the location of four palatial buildings dating to the Napatan and Meroitic periods (Fig. 124). Originally discovered by George Waddington and Barnard
Hanbury in 1822 (Waddington and Hanbury 1822: 125), and later explored by Cailliaud, along with the Egyptian army of Muhammad Ali during the invasion of Sudan in 1820-21. However, proper excavations of the site did not take place until 1916 when George Reisner of the Harvard University-Museum of Fine Arts, Boston (HU-MFA) expedition began his work. Reisner excavated the site from 1916-1920 where he focused on the pyramids, temples, and two palaces of this site. Following Reisner, a team from the University of Rome "La Sapienza", under the initial direction of Sergio Donadoni and subsequent direction of Alessandro Roccati, began excavating at Jebel Barkal in 1972. Later in 1986, another team from the MFA, under the direction of Timothy Kendall, resumed the museum's excavations of the site.

The palace designated B1200 (Fig. 125) was originally excavated by Reisner from December 28, 1918, to February 19, 1919; however, his findings were not extensively published. After completing that season's excavations, Reisner covered over one-third of the palace and left two-thirds of it exposed to the elements (Kendall 1991: 302). Inadvertently leaving much of the structure to suffer from erosion. In 1986, Kendall and his team reestablished Reisner's excavations of B1200; and that work is ongoing.

B1200 was constructed of mud-brick and was rectilinear in shape measuring approximately 35 x 70 m. The building is located immediately to the west of Amun Temples B800 and 500 (Kendall 1991: 302). Only one of its four sides was defined; therefore, not all relationships between B1200 and the surrounding buildings can be determined. Even though the "south" side was not fully excavated, surface traces seem to imply B1200 and B800

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21 The terminology used by Reisner to describe the directions of the buildings in relation to each other derived from his local workmen and will be placed in quotation marks. Therefore, downstream (southwest) is "north", upstream (northeast) is "south", inland (northwest) is "east", and riverward (southeast) is "west" (Kendall 1991: 303).
were separated by a wall with a doorway (Kendall 1991: 303). Four building phases (denoted Levels I-IV) of B1200 were identified which added a certain level of complexity while excavating. The first building phase was done during the reign of Piye (ca. 750-730 BC) probably prior to his Twenty-first regnal year. The second phase had two builders, Anlamani and Aspelta (ca. 620-591 BC). The builder of Level III is as yet unknown (ca. 590-550 BC). Level IV was built by Harsiyotef (ca. 400-370 BC), and Kendall’s proposed Level V was possibly constructed by Amanislo (ca. 250 BC). The construction of Level IV is attested in the Annals of Harsiyotef, "I (re)built the royal residence and chambers in Napata" (Grimal 1981a: plates 23a, 23; cf. Eide et al. 1996: 455; Welsby 1996: 124).

When Reisner began his excavations, he started on the "north" side of the mound and discovered a series of superimposed heavy mud-brick walls that were buttressed on the inside. These walls surrounded a courtyard measuring 15.5 x 28 m (Kendall 1991: 303). Reisner later called this room 1201. The court showed signs of multiple building phases, and the floor was crossed on its "north", "east", and "west" sides by a smaller wall indicating the original court measured approximately 13 x 23 m. Reisner later labeled this court 1202 (Kendall 1991: 303). The lowest level of the court had the remains of a small two-roomed structure, designated 1203/1204, and measured 5 x 7 m. This structure had no doorways and appeared to have only been in use during Levels I-II (Kendall 1991: 303). To the "east" of this room there appears to have been a kitchen area based on the presence of hearths, charcoal in the debris, cattle bones, ashes, and an abundance of potsherds. There was also a fire pit in the "northwest" corner that was enclosed by fire-scorched walls. This area was designated 1202a (Kendall 1991: 303). Another area within 1202 contained a low bench along the "north" wall measuring 80 cm wide x 50 cm high. Fragments of bronze and pottery
vessels were found on the floor of room 1203, thereby supporting the conclusion that 1203 was a pantry or storeroom (Kendall 1991: 303).

Leading from the kitchen area to the "south" were the rooms of the royal residence. These rooms were connected to the kitchen by a corridor (1205-1206) which included a descending stone staircase of four steps dating to Level II. The area composing the royal residences appears to have been at least 45 x 48 m and may have included the rooms on the second floor above corridors 1237-1238-1239 and 1233-1234 (Kendall 1991: 306).

Unfortunately, Level II appears to have been completely destroyed by a fire, and Level III was built directly on top of the remains. Therefore, it was difficult for Reisner to confidently distinguish the remains attributed to Levels II and III respectively. Despite the issues between Levels II and III, there appears to be some consistency of features found within the building (Kendall 1991: 306). For example, at either end of the building there were solid mud-brick staircases ("1219a" and 1243-1244) indicating a second floor. Also corridors were used to connect various parts of the palace. There was a "north-south" corridor running along the "east" side of the building (1205-1206-1210-1212) which separated rooms on the "eastern" side from those in the center. Corridor 1207-1252-"1252a" stretched in an "east-west" direction between the "south" wall of the court (1201-1202) and provided access to the "west" side of the building (Kendall 1991: 306). Corridor 1214 led to corridor 1245 which connected with the double staircase 1243-1244. Finally corridor 1237-1238-1239 provided access to the audience halls (1233-1234) and led "east" toward a gateway that faced the Sacred Mountain (Kendall 1991: 306). It can be assumed that the rooms between the corridors, as well as the ones above the corridors, were the residential areas of the palace.
In 1996 Kendall and his team excavated six adjacent Level III rooms (1213a, 1213, 1214, 1215, 1217 and 1221) which were attributed to Aspelta based on inscriptions on various Level II architectural elements (Kendall 1997: 324). These rooms were further excavated by Kendall, along with the assistance of Pawel Wolf, in 2006 at which time the area was renamed B1200ASP with the rooms designated 01, 02, 03, and so forth since it was difficult to determine to which occupation level of B1200 it related to (Kendall and Wolf 2007: 83). B1214 appears to have been a corridor which was in use during both Level II and III occupations. However, the other five rooms excavated were built directly on top of the Level II ruins (Kendall 1997: 324). As work continued the team discovered that fallen stone column elements from Level II became foundations for the walls and floors of the Level III occupation. Upon further investigation, Kendall and Wolf realized that the rest of the Level II room was beneath rooms 1217 and 1218 (ASP-01), measuring 8.5 x 11.25 m, and its roof was supported by four sandstone columns measuring 4.6 m high (Kendall 1997: 324; Kendall and Wolf 2007: 84). Therefore, the roof height could be estimated at approximately 5 m. The walls were 1.35 m thick and constructed out of mud-bricks tempered with sand and gravel. They were preserved to a height of 2 m in some places (Kendall 1997: 325; Kendall and Wolf 2007: 84). The inscriptions on the columns confirmed that Aspelta was the builder of these rooms, which have been labeled the "New Year's Hall of Aspelta" (Kendall 1997: 326). This hall will be assessed further in Chapter 5.

Following the excavation of Aspelta's New Year's Hall, Kendall and his team began re-examining the debris from the palace kitchens (B1201-1206). These rooms were identified as the kitchen area due to the multitude of fire pits, coals, as well as charred and broken cattle bones which were discovered by Reisner in 1919 (Kendall 1997: 334). When the team began
re-examining the debris, they found various objects in the soil including: food remains such as animal bones, shellfish and date pits; small sharp flakes made of quartz, chert, flint, and agate which would have been used to skin animals for consumption, faience and shell beads, bronze fragments and copper slag, faience vessels, and numerous amounts of pottery and potsherds (Kendall 1997: 335-336).

I.B. Dongola Reach: Sonijat

The Dongola Reach has been actively excavated by the Polish Centre for Mediterranean Archaeology of the Polish Academy of Sciences at the University of Warsaw and NCAM, under the direction of Bogdan Żurawski, since 1997. The Polish Joint Archaeological Expedition to the Middle Nile is also known as the Southern Dongola Reach Survey (SDRS). The concession includes the right, or northern, bank of the Nile between Old Dongola and ez-Zuma (Fig. 126). In 2009 a second team from the Institute of Egyptology from Charles University in Prague and NCAM, under the direction of Miroslav Bárta, began additional work at the Dongola Reach site of Usli.

The area of Sonijat has been under excavation since 1998 by the SDRS Survey project. During their field seasons, the team found a Kushite temple as well as Napatan metal objects such as bronze Osiris figurines, a copper-alloy Apis Bull, and a copper-alloy uraeus in addition to various votive objects such as bread moulds (Żurawski 2000: 217; Żurawski 2002a: 81). In 2001, Żurawski and his team discovered that the temple was renovated during the Meroitic period (Żurawski 2002b: 219) indicating Sonijat must be a site in use during that time.
On March 18, 2013, Żurawski announced that he and his team had found a palace in the Southern Dongola Reach dating to the Kushite period. This discovery was made during a geomagnetic survey of Sonijat (Fig. 127). The survey covered an area of 80,000 m² and revealed a large palatial complex, measuring approximately 60 x 80 m located near the ruins of a small sandstone temple visible on the surface (Herbich 2013: 47-48; Żurawski 2013: 46). The magnetic anomalies show an artificially dug channel that connected the palace with the Nile (Żurawski 2013: 46).

Krzysztof Kowalski published the find in *Rzeczpospolitá (RZ)* after interviewing Żurawski.22 The palace is located in the town of Sonijat-Tergis between the Third and Fourth Cataracts. The foundations encompass at least 5,000 m² and were built of mud-brick with stone details. In 1998, Żurawski hypothesized that modern Tergis is also the ancient site of Tergedus, located in the *Krttn* (Koroton) nome which was mentioned on the stela of Psamtik II (595-589) from Tanis (Figs. 128-130) (Żurawski 1998: 80; Żurawski 2000: 217; Der Manuelian 1994: 367; Sauneron and Yoyotte 1952: 182-183). The stela states that *Trgb* was the location of the palace of a Nubian ruler called a *qore* or king (Der Manuelian 1994: 367, 370 n. 278, n. 280; Sauneron and Yoyotte 1952: 183-187; Arkell 1961: 144 n. 4, 192). The site of *Trgb* was also the southernmost point reached by Psamtik's campaign since "the river did not allow", probably meaning that the cataract, or the region of Tergis where the Nile changes course, prevented ships from sailing further since they would have had to travel upstream against the wind (Żurawski 1998: 80).

The palace might also be the one described in an inscription of Irike-Amannote (2nd half of the 5th century BC) (Macadam 1949: plates 17-26; Eide et al. 1996: 400-428) on the eastern wall of the southern side of the Hypostyle Hall of Temple T at Kawa which mentions

22 Special thanks to Aleksandra Księżak for translating the article from Polish to English.
a pilgrimage to the temple of Amun in order to celebrate his coronation. During Irike-Amannote's second regnal year, 3rd month of Shemu, day 28, the king arrived at Napata and received the ceremonial cap of Nubia from the priests. Then on the 1st month of Akhet, day 9, the king sailed downstream reestablishing each of the nomes he passed, eventually arriving at the nome named Koroton (Macadam 1949: plates 18, 23; cf. Eide et al. 1996: 407). It is mentioned that on the 17th day, the king was in his palace23 (Macadam 1949: plates 18, 23; cf. Eide et al. 1996: 407). Then on the 1st month of Akhet, day 26, the king arrived at Kawa (Macadam 1949: plates 18, 23; cf. Eide et al. 1996: 408). The palace at Koroton mentioned in the inscription is probably the one found at Sonijat. This discovery has proven that there are more monuments to be found and information to be gleaned through continued archaeological excavations.

I.C. Kawa

Kawa, ancient Gematen, located 525 km north of Khartoum, was first noted in a subsection of The Anglo-Egyptian Sudan by Count Gleichen entitled "The Antiquities of the Sudan", contributed by J.W. Crowfoot. An Egyptian temple had been discovered and partially excavated by Colonel Hon. J. Colborne in 1885 (Macadam 1955: 1). The site was later excavated by F. Ll. Griffith and his wife Nora Griffith with the assistance of Charles Little under the invitation of A.B.B. Howell, Governor of Dongola Province in 1930 (Kirwan 1936: 199). Griffith, along with his wife and a team, excavated the site until the mid-1930s. Kawa is currently being excavated by Derek Welsby of the British Museum.

The earliest known buildings at Kawa were raised during the reign of Tutankhamun. Pharaonic construction continued into the reign of Ramesses VII; however, nothing is known

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23 Here the word "ḫi is used to indicate the palace.
about the activity from the end of his reign to the beginning of the Kushite period (ca. 1129 - 750 BC) (Welsby 2010a: 349). When Taharqa constructed his Amun Temple at Kawa, the site measured about 40 hectares in area and spanned over 1 km along the bank of the Nile. There is no evidence for Post-Meroitic or Medieval occupation of the site and many of the houses excavated date to the 8th-6th centuries BC (Welsby 2010a: 352). There is epigraphic evidence of occupation from the late 1st century BC during the time of Amanirenas and Akinidad and archaeological evidence of occupation into the 3rd century AD (Welsby 1998: 15).

The so-called Eastern Palace at Kawa (Figs. 131-132) is located to the east of Temple T. It is rectilinear in shape measuring 25.1 m x 17.1 m, and comprised of solid brick walls forming the façade of the structure which is flanked by small red sandstone recumbent lions. The building is entered on the southern side through a stone gateway which leads into a doorway (Macadam 1955: 114). This doorway leads to a small court; the walls are decorated with painted designs in red, yellow, blue, and black on top of a whitewash background (Macadam 1955: 114). The court is designated the "pillared room" due to the presence of a sandstone column base and there may have been three additional columns in antiquity.

To the north of the "pillared room" is a plain brick chamber which leads northward to a smaller brick chamber. The second brick chamber has smaller rooms to the east and west which resemble a triple sanctuary (Macadam 1955: 114). The "pillared room" and the plain brick chamber have entrances in the west walls which connect them to rooms with longer north-south axes. At the northern end is a long narrow chamber which does not appear to be part of the main building, but rather an exterior staircase or part of an earlier foundation (Macadam 1955: 114).
The western end of the façade abuts with the temenos wall of Temple T. There is a thinner, and potentially later, addition of a brick wall which stretches from the temenos wall to the southwest, forming another chamber outside the main building (Macadam 1955: 114). The building post-dates the reign of Taharqa (690-664 BC) since it abuts the walls constructed by Taharqa. It also post-dates the early Napatan period, otherwise the Eastern Palace would have been cut off from the temple area by the temenos wall.

I.D. Dongola Reach: Usli

The site of Usli was preliminarily surveyed in 2000 by the SDRS where they discovered the remains of a temple dedicated to Bastet, Meroitic and Post-Meroitic tumuli, and several Christian koms. In 2013, the Czech team conducted their third season at Usli. During this season, a geophysical survey, under the direction of Herbich, was conducted in order to examine the architecture around Temple 1 (Fig. 133). The survey exposed a complex of buildings to the north-northeast of the temple, the largest of which measures ca. 30 m x 40 m (Bárta et al. 2013: 67). The structure was oriented north/south and may have been a palatial building. Żurawski has commented that the Annals of Harsiyotef (1st third of 4th century BC) mentions a building that may have been the palace at Tare, "one side being 50 cubits, making four sides, 200 cubits " (Żurawski 2001: 287; Grimal 1981a: plates 23a, 23; cf. Eide et al. 1996: 455). This would support the findings of the geomagnetic survey, and future excavations should yield further details about this building.

Although no excavation was conducted during the 2000 survey, Żurawski postulated that Usli is the site of Tare, which is mentioned in the Annals of Harsiyotef and the Stela of Nastasen (2nd half of 4th century BC). After visiting Bastet of Tare, Harsiyotef was
instructed to go to the Amun temple at Tara’an’nesu\(^{24}\), which could be the large temple complex in Hugeir Gubli that is located on the opposite (right) bank, which is lower than the left bank, from Usli (Żurawski 2002a: 83; Żurawski 2001: 286; Grimal 1981a: plates 13a, 13; cf. Eide et al. 1996: 443). The Stela of Nastasen also has a reference to Tare: On day 19 of winter, the king was in Napata where he made Amun appear in procession. Then, on day 24 of the month, he "went up to Bastet who dwells in Tele," (Schäfer 1905: 151; cf. Eide et al. 1996: 483) after which, on day 29, he returned to Napata. This would indicate that Tare was, at most, a five-day journey from Napata, which is plausible given that Usli is located only 35 km south of Napata, and that during winter, the journey would have been made via land routes rather than the Nile (Żurawski 2001: 287).

II. Meroitic Palaces

II.A. Kerma/Doukki Gel

The site of Kerma, ancient Pnubs, is located 590 km north of Khartoum between the Third and Fourth Cataracts. It was originally explored by Frédéric Cailliaud, Louis Maurice Adolphe Linant de Bellefonds, and Karl Richard Lepsius who provided the first descriptions and drawings of the site. However, Kerma was not excavated until the HU-MFA expedition from 1913 to 1916. Excavations were stopped after 1916 until the Mission from the University of Geneva began working on the site in 1973 under the direction of Charles Bonnet.

\(^{24}\) Richard Holton Pierce rightly added the brackets to his transcription and translation of Tara’on’ensi. Upon examination of the original photograph (Grimal 1981a: plate 13a), the hieroglyphs that follow t3-r3 are difficult to decipher. The top sign does appear to be an "-arm, yet I am uncertain that the sign below it is n. Rather it appears that the sign could be a q-hill or a similarly written sign. Without parallels to the writing of this location, it is difficult to conclusively state the proper spelling and its exact location.
Throughout the 1991-1992 and 1992-1993 field seasons, Bonnet and his team dug a trench in the area of Doukki Gel, which is under the co-direction of Bonnet and Salah ed-Din Mohamed Ahmed. The site covers an area greater than 80,000 m² where a Meroitic palace was found (S. Ahmed 1999: 43). The building was excavated from 1992-1996 and is located at the northeast corner of the site. It was endangered of being further damaged because the village children were using it as a soccer field.

The remains of the palace (Figs. 134-137) discovered at Doukki Gel measure approximately 41 m x 30 m. The building was constructed of mud-brick; however, on the eastern part of the site, the excavators found some burnt-bricks, remains of columns, and stone thresholds which were probably originally part of the palace (S. Ahmed 2004: 208). The building was poorly preserved; the western part was completely destroyed, and most of the rest of the building was only preserved to the first layer of foundation. The central portion of the building has a square room (3) which measures 8 m x 8 m featuring a corridor on its northern (2) and southern (4) sides which measure approximately 2 m each. Room 3 might have been an open hall serving as a light well for the storerooms and upper level rooms. This arrangement was seen in a Napatan period house in Kerma (S. Ahmed 2004: 213).

Additionally, the excavators discovered layers of ashes, remains of ovens, grinding stones, large storage jar sherds indicating this room was used for domestic activities, such as the palace kitchens (S. Ahmed 2004: 213-214).

The entrance to the palace was probably located either on the western or south-western side of the building with the entire structure oriented east/west (S. Ahmed 1999: 44; S. Ahmed 2004: 211). It appears to be situated at a right angle to the temple discovered in 1997 (S. Ahmed 1999: 44). There might also have been a secondary entrance on the northern
side as indicated by a granite block aligned with the fragmentary remains of the northern surrounding wall (S. Ahmed 2004: 211). This entrance would have provided access to Rooms 1 and 8. Rooms 1 and 6 each measure 8 m wide, but have an undetermined length due to the lack of preservation in the western portion of the building. Originally the four column bases were believed to belong to the eastern part of Room 1; however, they were later determined to actually be part of a smaller room (8) (S. Ahmed 2004: 210, 211).

Corridor 7 is located to the east of Room 3, measures 15 m x 2.3 m, and is oriented N/S. To the east of this corridor are Rooms 9 and 10, each measuring 7.3 m x 3.5 m (S. Ahmed 2004: 210). There is another corridor (5) located between Rooms 3 and 6 which measures approximately 3 m in width. There are three semi-trapezoidal-shaped rooms in the eastern part of the palace. The northern most room (11) measures 9.2 m x 8.5 m x 7.7 m x 7 m, the middle room (12) measures 13.5 m x 11.7 m x 6.5 m x 6 m and has the remains of six sandstone column drums, and the southernmost room (13) measures 12 m x 12 m x 6 m x 5 m (S. Ahmed 2004: 210).

As seen with most palaces dating to the Meroitic period, the building at Doukki Gel shows evidence of a second storey due to the thickness of the walls (1-2 m), vaulted corridors (2, 4, 5, 7), and remains of assumed staircases in the eastern portion of Room 1 and the south-western corner of Room 13 (S. Ahmed 2004: 210, 212, 213). The palace storerooms might have been located in Rooms 9, 10, 12, and 13 which presumably were accessed via ladders or staircases from the upper level. However, doorways might have provided access between these rooms, as well as between Corridor 5 and Room 13, on the ground level (S. Ahmed 2004: 210).
A circular mud-brick structure (d), measuring approximately 18.5 m in diameter and 0.7 m in wall thickness, cut into a portion of Room 6 on the southern side of the building. The function of this structure remains unclear, but it may have served as a storage bin (Bonnet 1994: 45; S. Ahmed 2004: 214). It is probably the earliest structure associated with the site. Additionally in Rooms 9, 11, and 12, older walls (a, b, c) were discovered along with Napatan period potsherds (S. Ahmed 2004: 210, 214) indicating these walls may be from the same period.

II.B. Jebel Barkal: B100

A new palace, designated B100 (Figs. 138-139)\(^\text{25}\), was built near B1200 and was also oriented at a right angle to the Amun Temple B500. The building was excavated by Reisner between January 29 and March 26, 1916, and later published by Dows Dunham. The building is approximately square in plan, measuring 33.2 m on its NE and SW sides and 37.1 m on its NW and SE sides, and is constructed out of mud-brick (Dunham 1970: 7; Kendall 2014: 67). The main axis of B100 is oriented at a right angle to the entrance of temple B500. The door on the NE wall measures 104.4 m in a straight line to a point that is 26 m in front of the main entrance to court B501 (Kendall 2014: 69).

In the center of the building is a room (102) which contains 6 column bases in two rows of three that are all oriented N/S. Near the northeast corner of room 102 is a corridor (101) which leads to an entrance on the eastern side of the palace.\(^\text{26}\) To the south of room 102

\(^\text{25}\) Dows Dunham published a plan of B100 based on George Reisner's diary entries and notes after Reisner's death in 1942. This plan has been updated by Tim Kendall with a few modifications to room numbers and arrangements. These differences will be denoted D for Dunham and K for Kendall. The similarities will remain as they are on the plans.

\(^\text{26}\) Here Dunham states that the entrance is on the southern face of the building; however, when examining the plan, corridor 101 leads to an entrance on the eastern, not southern, side of the building.
is a shorter corridor\textsuperscript{27} leading to Room 121, and subsequently a southern entrance. Room 121 has a doorway on the northwest side of the room connecting it to room 122 which is long and narrow, stretching in an E/W direction. The latter has a doorway on the western wall which connects to a smaller room (124) (Dunham 1970: 7).

In the southwest corner of the building is a corridor (103) which extends to the west and possibly leads to an entrance in the western wall (Dunham 1970: 7). There is the lower portion of a staircase (104) at the center of the western side of the building which possibly led to a second storey that is now destroyed. To the north of this staircase is another room (131) that appears to have no doorways for entry. In the center of the building is a second staircase (106) that has three segments, the first to the north, then a western turn, and finally a second turn to the south. To the southeast of the staircase is a passage (107) which led to a columned room (108) on the northern side of the building (Dunham 1970: 7; Kendall 2014: 70). Corridor 107 was a later addition to B100 when the staircase (106) was added (Kendall 2014: 72). Like Room 102, Room 108 contained 6 columns in two rows of three with open papyrus or bell capitals that were plastered and presumably painted (Kendall 2014: 70-71), but also had a doorway on the northern side of the building leading to the outside.

Fifteen of the rooms (109, 110, D111 and D112 = K111, D113/K112, D114/K113, D115/K114, D116/K115, D117/K135, D118 = K133 and K134, 123, 125, 126, 131, 132) show no evidence of doorways, indicating they were accessed from the main floor, possibly by a ladder. These rooms were probably used as storage rooms, as well as the foundation for the upper levels. Three of these lower rooms (109, D111 and D112 = K111, D114/K113) had rectangular mud-brick pillars that were intended to provide support for the upper stories

\textsuperscript{27} This corridor, 121, is not marked on Dunham's plan; however, it appears on Kendall's plan as room 127 (see Figs. 138-139).
Below rooms D114-116/K113-115 are traces of mud-brick walls belonging to an older building that does not align with B100, and, therefore, was designated 100 sub (Dunham 1970: 7; Kendall 2014: 72). However, the extant walls are only slightly above the level of the Nile, implying that an earlier building could not have been in this location (Dunham 1970: 7). The pottery uncovered in B100 can be dated to the early Meroitic period (ca. mid-3rd - 1st century BC), providing a date for B100.

II.C. Musawwarat es-Sufra: The Great Enclosure

The site of Musawwarat es-Sufra is located about 180 km northeast of Khartoum and 30 km east of the Nile in the western Butana. Musawwarat es-Sufra was originally explored by Linant de Bellefonds and Cailliaud in 1822. Following their exploration, Lepsius later made the first scientific documentation of the site. Excavations began in 1958 with the Butana-Expedition of the Institute for Egyptology of the Humboldt-University of Berlin under the direction of Fritz Hintze and are ongoing.

The Great Enclosure (Fig. 140), which encompasses approximately 43,000 m², is the most important monument at Musawwarat es-Sufra. The complex is constructed out of Nubian sandstone, indicating a cultic function of the enclosure. Construction of the Great Enclosure probably began during the Napatan period and continued throughout the Meroitic period; however, King Arnekhamani (ca. 235-218 BC) is the only ruler who is known to have contributed to the building of the Great Enclosure (Wolf 1997: 20).

Although the Great Enclosure is undoubtedly a center for religious activity, some of the buildings discovered appear to have had a secular function even though they were constructed of stone. The rooms in question are 217-222 and courtyards 215, 223 and 224
(Eigner 2001: 86). Rooms 219 and 221 appear to have been bedrooms since the windows were placed above eye level whereas rooms 218 and 220 had low sills so they possibly had more of a public function. Rooms 208 and 209 probably functioned as a, "royal sacristy' and as a make-up and dressing room, so as to prepare the king for his cultic appearance in the temple" (Eigner 2001: 87). While it is clear that this palatial structure was not intended to serve as a permanent residence for the king and his entourage, the amount of pottery fragments in courtyard 224, as well as the kitchen area in room 225, indicate that the king may have been at Musawwarat es-Sufra for longer periods of time. However, areas that could have been used as baths and toilets have not yet been found.

In addition to Complex 200, there is a similar complex denoted as Complex 500 which has many similar features. Rooms 507, 508 and 509 are also believed to have been bedrooms given the position of their windows and that they are connected to the cultic areas by ramp 510. Much like rooms 208 and 209, rooms 524-526 may have served as a "royal sacristy" for cultic proceedings that would take place in either the central temple or the western chapel (Eigner 2001: 87). Rooms 518-519 may have served as an audience hall where the visitors would have approached from ramp 520. The storerooms appear to be located in rooms 502-504 and 109-112; this was determined based on their elongated shape, grouping and location (Eigner 2001: 87-88).

While the culmination of complexes within the Great Enclosure do appear to serve domestic rather than strictly religious functions, it is uncertain whether they were intended to be a royal residence. Instead, these complexes can probably be better compared to the temple palaces as seen in Egypt rather than the purely residential palaces.
II.D. Meroe: M923

The site of Meroe (Fig. 141) is located approximately 215 km north of Khartoum and encompasses nearly 1 km². The main portion of the area was designated the "Royal City" by Garstang due to its archaeological and epigraphic finds. Excavations began at Meroe in 1909 by the University of Liverpool under the direction of Garstang and lasted until 1914. During these field seasons Garstang discovered much of the royal district including the palaces, storerooms, and shrines. Following Garstang's excavations, Peter Shinnie resumed work at the site in 1965 along with the University of Ghana, and from 1966-70 with the University of Khartoum. Later the excavations would be conducted under the joint direction of the University of Khartoum and the University of Calgary (1971-77, 1983-84). After an eight-year hiatus, work resumed in 1992 with the joint mission of the University of Khartoum, the Humboldt University of Berlin, and the Roemer-Pelizaeus Museum of Hildesheim which completed a survey and discovered another temple. Currently the site is being excavated by the joint mission of the University of Khartoum and the Royal Ontario Museum under the co-direction of Hwida M. Adam and Krzysztof Grzymski.

Building M923 (Figs. 142-143), measuring 13.4 m x 24.4 m, was partially excavated during the 1912-1913 field season. This building dates to 3rd - 2nd century BC, and was entered from the processional way (M920) through a portico with two columns (Garstang and George 1914: 14; Garstang et al. 1914-1916: 3; Török 1997b: 197). Through the portico, there was a room which contained a basin made of stone, which has been interpreted as evidence of Mediterranean-inspired luxuries incorporated into the homes of the elite at Meroe (Török 1997b: 198). This room also connected to a long passageway that led to a courtyard with a covered colonnade on two of its sides (Garstang and George 1914: 14;
Török 1997b: 197). There were remains of additional rooms to the west of the courtyard; however, the walls had completely disappeared by the time of excavation.

Toward the southern end of the building there is a short staircase and a wall which was divided by openings into six piers (Garstang and George 1914: 14; Török 1997b: 197). The presence of a staircase could indicate M923 had a second storey. South of the wall the team discovered a seated clay figure of Taweret, *in situ*, which was plastered and painted; however, the present location of the figure is unknown. M923 was constructed of mud-bricks measuring 35 x 17 x 9 cm and 34 x 18 x 9 cm (Török 1997b: 197) which were the standardized ones found during the reign of Taharqa (690 - 664 BC), and continued to be in use after his reign. This indicates that Meroe was in fact occupied prior to the official move of the capital.

II.E. Meroe: M950

Building M950 (Figs. 144-145) underwent four primary construction periods that spanned from the early Meroitic (early 3rd century BC - late 2nd century BC) up to the Late Meroitic (late 1st century BC - AD 350) periods. Remains from the first building discovered underneath M950 correspond to the remains of buildings under M995, 996, and 998, thus dating them to the early Meroitic period (Garstang et al. 1914-1916: 9-10; Török 1997b: 208). The first building was partially destroyed to accommodate the construction of the second building; however, some of the original structure was incorporated into the latter.

Rooms M954 and 954a from the first phase lost their vaulted ceiling, and the floor was raised

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28 For the use of mud-brick sizes as dating criteria, see: Bradley 1984: 195-211; Griffith 1922: 67-124; Dunham 1963: 11, Fig. 174; Török 1997b: 25; Pope 2014: 22.
approximately 1-2 m, so the rooms could be incorporated into the storerooms (Török 1997b: 208).

The second building measured approximately 38 x 28 m and was constructed out of burnt-brick with a mud-brick core. The ground floor was accessed by two narrow staircases, one from the southwestern front from M952 that allowed entry to an L-shaped corridor leading to a cluster of rooms located above M968. The second staircase arises from the northwest front originating in M955 (Garstang et al. 1914-1916: 12; Török 1997b: 210; Sievertsen 2013: 267). During the third building phase, the annex M959 and a monumental staircase at the southeast front were added. The addition of the annex was unusual since it did not adhere to the original plan of the structure and subsequently obstructed the processional avenue (M920). However, according to Pythian-Adams, the street was still able to be used (Garstang et al. 1914-1916: 12). The monumental staircase probably replaced the two staircases mentioned above and may have led to the official rooms of the building (Sievertsen 2002: 165; Sievertsen 2013: 267). During a later phase of the building, the stairs were removed and the staircase was converted into a ramp providing access to the upper storey of M950 (Török 1997b: 211). It appears that M950 ceased to be in use around the same time M995, 996, and 998 were also destroyed since they were leveled and the streets were filled in with their debris. None of the artifacts discovered in the debris postdate the 2nd century AD (Török 1997b: 211).

II.F. Meroe: M995

Building M995 (Figs. 146-147) is located in the northeast portion of the Royal Enclosure. The building measures 20.7 m x 34.1 m with the walls being oriented in the same
manner as the monumental houses M996 and M998, which reflects the orientation system of the Early and Late Napatan buildings at Meroe (Garstang and George 1914: 12; Török 1997b: 221-222). The eastern front wall, as well as one of the walls parallel with the western front of M995, appears to have been built on top of earlier walls. This arrangement is again similar to M996 and 998, which were also constructed from re-used walls of buildings dating from Early Meroitic edifices.

The northern and western parts of the building had walls preserved to a height of over 2 m, whereas the southern and eastern rooms were destroyed (Török 1997b: 222). The rooms in the northern portion of the building had mud-brick walls and barrel vaults covering the rooms. There were the remains of a staircase behind the western front which indicate an upper storey (Török 1997b: 222). The dating of M995 is unknown; however, the building was constructed on top of earlier walls dating to approximately the Early Napatan period. Additionally, the southern wall was destroyed for the erection of Houses A and B which date to approximately the middle of the 1st century AD. Finally a hand-made vessel discovered in a layer under M995 is a type sometimes found with Early Meroitic levels (3rd and 2nd centuries BC) (Török 1997b: 222).

II.G. Meroe: M996

While most of building M996 (Figs. 148-149) (34.1 m x 30.5 m) was destroyed by later building activities, the layout appears to have followed that of M990 and 998. The courtyard was not aligned with the center of the building, which could be the result of choosing an area smaller than required for its size (Török 1997b: 224). There were three steps at the southern front of the building that may have belonged to an earlier building
period (Garstang and George 1914: 11). The walls of the building underneath M996 were preserved to a height of approximately 50-80 cm and many of the vessels dug into the floor of M996 rested directly on top of these wall remains (Török 1997b: 223). There were remains of five columns or column bases in room M929 located in the southeast portion of the building showing that the primary rooms of M996 opened from the western or northern sides of the courtyard.

The dwelling was constructed from a variety of building materials. Its inner walls were of mud-brick, the western outer wall was faced with burnt-brick, and the southern outer wall was faced with rough slab stones (Garstang and George 1914: 11; Török 1997b: 224). In addition to the stone facing on the southern outer wall, there were two openings, measuring 20 x 20 cm each, that were cut into areas where the wall was constructed out of burnt-brick rather than rough slab stones. These openings may have served as windows possibly indicating the inner chambers were open at one point rather than filled with earth and debris (Garstang and George 1914: 11; Török 1997b: 224). The arrangement of the building consisted of a series of long chambers, now with destroyed walls and doorways, and a southern courtyard with a corridor on two sides which are separated from the courtyard by piers of burnt-brick (Garstang and George 1914: 11).

At one end of the corridor a group of vessels buried with small enclosing walls surrounding them were located. The vessels were discovered with their mouths facing downward and the bottom broken. Below one of the vessels, there was a small hearth that showed evidence of burning, which might indicate the contents were burned after the container was put into position (Garstang and George 1914: 11). The date of M996 can be postulated from two vessels found in situ numbered 297-54 and 297-55. Both of the jars are
representative of Meroitic wares dating to the 1st century BC. The decoration on 297-55 is transitional between Middle Meroitic vase painting reminiscent of Hellenistic Egyptian imports and the Pharaonic Style that appeared during the 1st century AD (Török 1997b: 224). Therefore, M996 probably dates to the end of the 2nd to the beginning of the 1st century BC.

II.H. Meroe: M998

The palace M998 (Figs. 150-151) was excavated in the final two seasons of Garstang's expedition to Meroe (1913-1914). The earliest remains of the building were constructed of mud-brick and can be dated to the early part of the Middle Meroitic (late 2nd century BC to late 1st-early 2nd century AD) settlement period (Török 1997b: 228). The overall structure, measuring 35.4 m x 45.1 m, was altered, restored, and rebuilt several times throughout the course of its occupation. The walls of the main building period of M998 were constructed of various materials. The inner portions of the building were made of mud-brick, the corridors and courtyard were constructed of mud-brick with a burnt-brick facing, the western, southern, and eastern front walls along with the courtyard pillars and bases consisted of a mud-brick core with a burnt-brick exterior and some of the smaller walls were made entirely of burnt-brick (Török 1997b: 228).

M998 shows a symmetrical layout around a central courtyard with a peripteral colonnade on its northern, eastern, and western sides. The southern side connected to two rooms (both labeled 906 in the plan). The main entrance was at the southeastern corner of the courtyard. A secondary entrance was located at the western side from the processional avenue (M920) that went through a corridor leading to the courtyard. There was a third
entrance from the southern side of the building that led past both M906 rooms to the southwest corner of the courtyard (Garstang et al. 1914-1916: 11; Török 1997b: 228).

The ground floor of M998 was about 0.5 m over the street level as indicated by the presence of an entry stairway at the western entrance from M920. There was a staircase off the southeastern entrance corridor that led to an upper storey or the roof. The flooring for the southeastern corridor was found relatively intact. The rooms of the lower level connected with the courtyard; however, there were no traces of doorways between the individual rooms (Török 1997b: 228). Vessels containing ashes were discovered in the lower chambers with small enclosing walls constructed around the containers (Garstang and George 1914: 10).

II.I. Karanog

The site of Karanog is located midway between the First and Second Cataracts of Lower Nubia, approximately 30 km north of Qasr Ibrim. Karanog was excavated by David Randall-MacIver and Leonard Woolley from 1907-1910 on behalf of The University Museum, University of Pennsylvania. The town site was only preliminarily excavated, and a full plan of the site was never completed. A total of 10 buildings were revealed, all of which were located on the lower ground near the Nile, with the best preserved one being the so-called "Castle" (Figs. 152-154) (Woolley 1911: 2). The architectural styles allowed for two building phases to be discerned.

The castle at Karanog was a three-storied building constructed of mud-brick (34 x 17.5 x 9 cm) with a stone foundation. This structure, measuring 25.5 m x 25.5 m, was built during the 2nd century AD when settlements in Lower Nubia became denser (O'Connor 1993: 86-87). Small, high windows that allowed for visibility and defense of the residence
(Woolley 1911: 6) were located throughout the building; however, the small ground-floor windows and those on the third floor had brick lintels, whereas the larger ground-floor windows had stone lintels (Woolley 1911: 14). Like the ceilings, the doors were also vaulted.

The earlier phase was characterized by a sturdy mud-brick construction atop a stone foundation with whitewashed walls that supported barrel-vaulted ceilings. There were staircases that led to not only a second storey, but a third as well (Woolley 1911: 2). The rooms were arranged around open courtyards. The later building phase was less sturdy than the earlier building phase. The vaulted ceilings were replaced with flat roofs of palm-leaf mats and mud over rafters, and the walls were flimsy (Woolley 1911: 2). The rooms also displayed evidence of additions and alterations through the lack of uniformity of the room arrangements.

When the building was discovered, the excavators observed large gashes in the walls that stretched from the second floor windows to the foundations (Woolley 1911: 3). The interior walls were also pierced, and the doorways were destroyed. An entrance was found on the eastern side of the building where the gateways showed evidence of being damaged, but also showed an attempt at repairing the deterioration (Woolley 1911: 3). According to the triumphal inscription by King Silko from the Temple of Kalabsha (before ca. AD 450), he waged three successful campaigns against the Blemmyes, with the final one ending in the occupation of their territory (Eide et al. 1998: 1150). Presumably, this is when the castle was destroyed and the site of Karanog was abandoned.
Twenty-two rooms were found within the castle, and twenty-one of them were excavated. Rooms 2 and 8 provided the staircases to the higher stories, which were evident not only from the stairwells, but also from the presence of windows at the upper floor levels. Although the higher part of the staircase from Room 2 and the staircase from Room 8 were illuminated via windows, in the lower part of the Room 2 staircase, there was a niche that had black smoke damage. This is probably where a lamp would have been placed to light the darker portions of this area (Woolley 1911: 16).

The courtyard (Room 22) which served as the light well for the castle and public rooms was located on the ground floor. Of the remaining lower level rooms, Room 1 served as the sole entryway to the building, and provided access to the staircase in Room 2. Located next to Room 2, Room 5 measured 5.25 x 3.5 m and had walls that were rough and not whitewashed (Woolley 1911: 17). In the southeast corner of the room was a rectangular brick platform (1.1 x 1.0 x 0.3 m) which served either as the base for a heavy object or as the foundation for a brick bin. Six jar sealings were found along with a fragment of a basket, a rectangular piece of broken mud with tally holes, and a flat, roughly circular stone with holes and lines. The lack of refined treatment of the room, along with the objects discovered within it, all indicate that Room 5 served as a storeroom for the castle.

Room 18 (3.5 x 5 m), located next to the light well, was one of the better preserved rooms on the lower level. In the south wall was a window which allowed light from the light well to illuminate the room. About 2.6 m above the floor level in the northern and southern walls, there was a row of projecting stones that were rounded on the end and pierced horizontally with holes (Woolley 1911: 22). This type of element is found in modern Nubian

29 Room 21 was left unexcavated because the rubbish in the room provided support for the north wall of Room 7. When the excavators began removing the rubbish from Room 21, the wall shifted approximately 1 m, so the team decided to leave that room untouched in order to preserve the wall.
homes where ropes are strung from the holes in the stones and stretched across the room. The baskets and pots with food would then be hung from them (Woolley 1911: 22). There is little reason to doubt that this was the method being utilized at Karanog. The walls were roughly plastered but not whitewashed. However, they were blackened by smoke. All of these findings indicate that Room 18 functioned as the castle kitchens. Interestingly, the ovens were placed in Room 22. In the northwest corner there was a brick circle 1.6 m in diameter with brickwork blackened by smoke. A possible second oven was located in the southeast corner as well. The ovens were placed in Room 22 over Room 18 because the ventilation provided by the light well would have been a more ideal location for the castle ovens making them accessible to the kitchen area.

Of the additional structures excavated, at least two, specifically Houses 8 and 9, dated from the Christian period based on pottery discovered in the upper occupation levels (Woolley 1911: 43; Edwards 1996: 62). Meroitic ostraca were also found within the town site. These were frequently inscribed with numbers as well as the place name Pezeme (Amara) (Griffith 1911: 82). A Greek ostracon dating to the twelfth year of Alexander Severus (AD 233) was also found (Woolley 1911: 4).

II.J. Meroe: M294

Palace M294 (Fig. 155) measured approximately 55 m x 55 m and was built mostly of mud-brick. The northern wall was made up of stone slabs and rubble, measuring 2.2 m in width, and 1 m in height. Some blocks originally believed to have been part of the eastern wall of M295 were in fact the western face of the western wall of M294 (Grzymski 2003: 51). These blocks still had some of their original white plaster attached to them. The eastern
wall was still well preserved at the time of Grzymski and Osman's excavations. The team determined that the wall consisted of stone slabs and rubble that was resting atop stone blocks that were possibly fragments of column drums (Grzymski 2003: 51). Approximately 12 m south of the northeast corner of M294, there were remains of a monumental gateway, or tower, comprised of sandstone blocks which was not indicated on Garstang's plan of the building. The gateway spanned approximately 4.3 m along the eastern wall and approximately 5.8 m along the northern side (Grzymski 2003: 51). There appears to have been a small chamber within this structure. Roughly in the center of the palace, Garstang showed a small hall with four columns, only one of which still remains. Located approximately 15 m east to southeast of the hall are stone doorjambs measuring 50-60 m wide and 24 cm thick composing an interior gate (Grzymski 2003: 52). The doorway measured 120 cm wide. Flanking the southern side of the doorway were two additional blocks measuring approximately 70 cm long and 36 cm thick which widened the passageway to 142 cm (Grzymski 2003: 52). This gateway was also missing from Garstang's plan.

During the Garstang excavations, the team discovered a deep stone-lined chamber in the center of the building at a depth of 4 m (Garstang and Sayce 1912: 49). The chamber was devoid of artifacts but it may have served as a storage area in antiquity. A secondary discovery was a rubbish pit at the northern side of the building that contained numerous faience, pottery, and miscellaneous fragments (Garstang and Sayce 1912: 49). This rubbish pit is instrumental in dating M294 and will be discussed further in Chapter 5. Artifacts discovered within it are dated to ca. 700 BC and the early building phase of the structure. A second building phase occurred during the Meroitic period, which is evident based on the similar design of M294 with B1500 at Jebel Barkal (mid-late 1st century AD).
Under the foundations of one of the existing walls, the team found a red polished earthenware vessel that had been filled with gold dust and nuggets, broken glass and beads, a golden pyramid, scarab, and flat scarab seal that were all inscribed, and three golden money rings (Garstang and Sayce 1912: 49). Another jar containing gold dust and nuggets was found near the first, but the objects did not yield any fundamental information. These vessels could also be components of a foundation deposit.

II.K. Meroe: M295

Palace M295 (Fig. 155) measured approximately 52 m x 52 m and is oriented similarly to M294. The enclosing walls, and two of the inner walls had an average thickness of over 4 m and did not have noticeable doorways which indicates that these remains served as the foundation storerooms for the building (Török 1997b: 162). The southern and eastern sides of the palace were largely destroyed. The inner rooms were accessed by means of a corridor that began at the center of the eastern front and extended westward then north and possibly westward again (Török 1997b: 162). A water basin was discovered north of the inner east-west partition wall that was constructed out of stone blocks with stairs on its western edge (Garstang and Sayce 1912: 50; Török 1997b: 162). The walls of the basin and the stairs were whitewashed and the basin was divided into two parts: the basin itself and a narrow, low podium on its southern side (Török 1997b: 162). It remains uncertain whether this basin was used for ceremonial or utilitarian purposes.

The northwest corner of the building could still be seen during Grzymski's excavations. The corner was constructed of sandstone blocks with rubble and slab stones on top of it. One of the blocks that measured 44 x 35 x 17 cm displayed an incised cartouche of
Anlamani (late 7th century BC) (Grzymski 2003: 52). The western and southern sections of
the palace are flat and empty preventing the southwestern corner from being delineated. A
wall extended east from the Royal Bath (M95/195) and almost touched the western wall of
M295. This wall was also omitted from Garstang's plan of the building (Grzymski 2003: 52).

The dating of M295 has been suggested by the thickness (approximately 2 m) of the
stone wall discovered underneath the northeast corner of the building. This wall originated at
the western enclosure wall and its masonry matches that described in the Royal Bath (Török
1997b: 162). The western section of the wall extended southeast to the northeast corner of the
building where it changed direction and continued in a north-south direction. Garstang and
his team did not explore the wall past this point (Török 1997b: 162). Since it appears that the
western section of the wall was reused as the foundation for the second building phase of the
Royal Bath, excavators have determined this building to be of the Late Meroitic period (late

II.L. Meroe: M251-253

Palace M251-253 (Fig. 156), measuring 22 m x 22 m, was constructed of mud-brick
and was arranged around a rectangular central courtyard containing eight columns (Sayce
and Garstang 1910: 66; Török 1997b: 114). There were entrances located at the eastern and
northern sides of the building. The northern entrance faces the southern side of Temple
M250. A staircase in the eastern portion of the building led to either a second storey or the
roof. There was potentially a second staircase near the northern entrance (Török 1997b: 114).
Two rooms located at the northern part of the palace do not exhibit doorways which would
indicate they were storerooms. Due to its proximity to M250, M251-253 probably functioned
as a temple palace rather than a permanent residence. Garstang identified the building as a priests' house; however, Török has disputed this theory because New Kingdom priests' houses could not be located at a temple entrance (Sayce and Garstang 1910: 67; Török 1997b: 115). M251-253 has been dated to the late Ptolemaic/early Roman period (ca. 1st century BC - 1st century AD) based on charcoal samples found near the door frames.

II.M. Meroe: M255

Palace M255 (Fig. 157) was located southeast of M250 and oriented in the same manner as M251-253 (Garstang and Sayce 1912: 46; Török 1997b: 115). The building, measuring 27 m x 27 m, was constructed of mud-brick with an entrance at the center of the northern side facing the hafir. Four clusters of rooms comprised the ground floor. Each had a larger room measuring approximately 6 x 6 m with smaller chambers arranged around two or three of the sides (Török 1997b: 115). The published plan does not show doorways, which might indicate either that the rooms were all storerooms, or the dividing walls were not preserved above the level of the door thresholds. Due to the arrangement of the building and a Post-Meroitic intrusive burial, M255 appears to date to the Meroitic period (4th century BC - 4th century AD); although, exact dating of the building remains inconclusive.

II.N. Meroe: M750

Palace M750 (Figs. 158-159), located outside the Royal City walls, measured approximately 80 x 48 m and was built of mud-brick on a sandstone foundation. It displays wall thicknesses of 1-2 m. The foundation walls were made up of dressed sandstone blocks that came primarily from earlier buildings. Many of the blocks have incised reliefs or
architectural carvings demonstrating a range of sizes, styles, and themes (Török 1997b: 182). Large, well-preserved cornice blocks with uraei and star friezes were found in the foundation layers along the main axis indicating that they were derived from carefully dismantled edifices (Török 1997b: 182; Grzymski 2008: 231). Some of the blocks date to the late 1st-2nd century AD, thus providing a tentative date for the building (Török 1997b: 182).

The building appears to have consisted of two parts connected by a courtyard or baldachin (Török 1997b: 182; Hinkel and Sievertsen 2002: 123). The northern portion of the building featured a monumental pylon entrance facing northward, oriented toward the processional way leading to the Amun Temple M260. The rooms were symmetrically arranged along the eastern and western sides of the building with a columned courtyard in the middle (Török 1997b: 182). The southern portion of the building (Fig. 165) was square in shape, measuring 33 x 33.6 m (Grzymski 2005: 53). It was also arranged around a central courtyard. According to Török, the northern portion of the palace served as the administrative sector, and the southern portion as the residential section (Török 1997b: 182). However, Hinkel and Sievertsen identified the northern part as a temple due to the monumental pylon, and the southern part as the palace (Hinkel and Sievertsen 2002: 123-124). Although Török has suggested that there were remains of two staircases located at the northern and southern ends of the southern part of the palace (Fig. 158) (Török 1997b: 182) indicating a second storey, the updated plan by Grzymski (Fig. 159) clearly only shows one staircase (near i and ii) on the southern side of the southern portion of M750.

During his excavations, Grzymski investigated the southern portion of the building. Room G yielded a deposit of cups and bowls along with animal bones and charcoal. The pottery was a style typical of the Napatan period and resembled pottery discovered by
Shinnie in his lowest levels as well as red-painted wares at Kawa, Sedeinga, and Letti (Grzymski 2005: 53; Grzymski 2008: 232). More of this type of pottery was also found in room C, along with considerable amounts of animal bones, charcoal, and large vessel sherds, indicating this was possibly a kitchen (Grzymski 2005: 54). Two charcoal samples were analyzed and generated dates ranging from the middle to the late 9th century BC. These dates probably do not indicate that M750 was constructed much earlier than originally estimated, but rather suggest that the rooms excavated thus far were probably filled with debris from earlier periods (Grzymski and Grzymská 2008: 47).

Portions of the central room (P and Q) were explored, but no new evidence was found to determine the function of the room (Grzymski 2005: 54). A section of room BB was also surveyed, that yielded a layer of dark, ferricrete sandstone slabs that may have been part of a floor. Based on a charcoal sample taken from the floor's level, it is tentatively dated to the late 1st-3rd century AD (Grzymski 2005: 54). This floor appears to extend into rooms Z and AA (Grzymski 2008: 233). A block on the northern wall of BB had an early Meroitic inscription carved into it similar to ones found at Doukki Gel (Grzymski 2008: 232). The structure (GG) outside the building walls was also excavated. It was constructed of sandstone blocks and had stairs leading to its northern side (Grzymski 2005: 54). Unfortunately the function of this structure remains undefined.

While excavating room N in order to determine whether or not Hinkel and Sievertsen were correct in proposing the presence of a western entrance to the building, Grzymski and his team discovered a diagonal stone wall and a silo. These elements probably date to an earlier structure (Grzymski 2008: 232). The area to the west of room N was further investigated during the 2007 field season during which time the team unearthed a small wall
projecting westward for approximately 2 m (Grzymski and Grzymksa 2008: 48). The function or purpose of the small wall is uncertain, but it is probably a later addition since there is not a similar or related wall on the eastern side of the building. Finally the southeastern portion of the palace was examined and the excavators found a mud-brick wall in room FF that was out of line with the other walls (Grzymski and Grzymksa 2008: 49). The walls on this side of the palace had one or two layers of bricks resting on top of the stone foundations indicating the superstructure of the building was constructed of burnt-brick with white plaster.

II.O. Musawwarat es-Sufra: The Small Enclosure

Related to the Great Enclosure is the Small Enclosure (Figs. 160-163) at Musawwarat es-Sufra. The group of buildings comprising the Small Enclosure (43.6 m x 42.1 m), similar to the Great Enclosure, were constructed of sandstone. This collection of buildings had a more domestic nature with kitchen and storage areas. It is possible that the Small Enclosure served as the living quarters for the priests servicing the Great Enclosure (Wenig 2001: 74; Edwards 2004:153). Within the Small Enclosure, large baked clay storage jars or cooking vessels were found with ashy contents (Fitzenreiter 2013: 285). These objects would support the assignment of this room as a kitchen area for the building.

At the center of the building is evidence of living quarters with an entrance hall and chamber (Rooms XXXIII and XXXIV). From the eastern corridor (XXIII), two courtyards, northern (XX) and southern (XXIV) were accessible (Fitzenreiter 2013: 287). The northern courtyard provided access to the service wing and eastern courtyard of the Small Enclosure. Rooms XII and XIII also served as an entrance hall and chamber. Large clay pots were found
in this area but were devoid of ashy remains causing the excavators to suggest that this section had been modified to serve as a bathroom area (Fitzenreiter 2013: 287). Additional living quarters were found in Rooms XXVI and XXVII.

The area of Musawwarat es-Sufra was subject to flooding through regular rainfall; therefore, a drainage system was incorporated into the inner courtyards (Fitzenreiter 2013: 290). The placement of the drainage holes indicate that the majority of the interior spaces were only covered with light roofing materials and that roofing such as logs with palm fronds, was reserved for the end spaces (Fitzenreiter 2013: 290). There is no evidence for windows, and the rooms were presumably lit and ventilated through their door openings. Given that the area of Corridor XXIII and Room XXXIII was constructed atop a terrace, it would have been accessed via a staircase (Fitzenreiter 2013: 290).

The Small Enclosure underwent two main building phases, with the first being attributed to Periods 5 and 6 of the Great Enclosure that dates to the reign of King Arnekhamani (ca. 235-218 BC). Unfortunately, no absolute date can be provided for the second building phase at this time; however, it may correspond to Period 7 of the Great Enclosure (ca. 55 BC) based on C-14 dates from charcoal samples tested in the nearby building (Fitzenreiter 2013: 295).

II.P. Muweis

The site of Muweis is located approximately 165 km north of Khartoum and was documented by Sobhi Iskander as early as 1969 but remained unexplored by the archaeological community until Patrice Lenoble and Ahmed Sokari performed a survey in 2003. Following that survey, the site was excavated under the direction of Michel Baud from
the Louvre Museum until 2012. Muweis is currently being excavated under the direction of Marie Millet in association with the Louvre Museum and the National Corporation for Antiquities and Museums (NCAM).

During the survey, Lenoble and Sokari examined a ruin documented in 1969 that still survived to a height of 3 m (Lenoble and Sokari 2005: 59). They discovered mud and burnt-bricks, some used in arches or vaults, small ferricrete sandstone slabs, and lime mortar wall coating fragments. Lenoble and Sokari also dug four pits during their survey that revealed a structure composed of complex walls (Lenoble and Sokari 2005: 59). During his first season, Baud excavated this ruin, which became known as Gala'a el-Howara and uncovered a structure that has been subsequently identified as a Meroitic palace (Figs. 164-167) (Baud 2008: 56).

When the team began removing the surface material they found mud-brick walls 1.5 to 1.7 m thick on the southern side of the structure. The excavators discovered that the walls on the southern portion of the palace were made up of multiple layers of black sandstone slabs that had separated naturally (Baud 2008: 56). Trial trenches were dug in the central portion of the building (Rooms 1-4), and extended to the base of the walls. Mud-brick foundations were found that periodically protruded beyond the wall line and were built on top of both the virgin soil and an earlier Meroitic occupation (Baud 2008: 56).

The earlier levels can be divided into four distinct phases in the 90 cm accumulation above the virgin soil in Room 3. Two of the phases were found in Room 2 and three phases in Room 4 (Baud 2008: 56). The rest of the structures show evidence of a normal settlement including mud-brick walls of one header or stretcher thick, braziers constructed of broken pots which were placed upside down and set into the floor, circular silos, sunken mud
containers, and storage jars (Baud 2008: 56). Meat appears to have been an important part of the diet due to the presence of a 10 cm thick layer of sheep and cattle bones found in Room 4 (Baud 2008: 56-57).

While the present size of the building is 51.5 m x 49 m, the original building was larger, possibly up to 60 m per side (Maillot 2013: 2; Maillot 2014: 783). The preliminary plan proposed indicates long corridors, elongated rooms (11-14 m x 2 m) and larger rooms. This bears a resemblance to the layout of the lower level of the palace at Wad ban Naga (Baud 2008: 57). That similarly prompted Baud to suggest that the structure found at Muweis was also a palace. The rooms preliminarily excavated showed no traces of occupation aside from the pre-palace construction indicating that casemates served as the foundation for the upper storey (Baud 2008: 57). These casements were empty, except for debris from the second storey, that included yellow sandstone fragments, hard white lime plaster that sometimes had blue paint and bricks that may have been used for the cornice. The palace appears to have used these building materials in different ways from other similar palaces because the walls of the northern portion show evidence of a burnt-brick core and mud-brick face whereas the other Meroitic palaces were constructed of a mud-brick core with a burnt-brick face.

The building is divided by a continuous wall measuring ca. 49 m which runs east/west across the entire structure. This walls splits the palace into two separate areas. The northern part, measures ca. 24 m x 61 m, and the southern part, measures 37 m x 61 m (Maillot 2013: 3). The rooms located in both the northern and southern portions of the building are clustered into three groups, A-C in the northern and D-F in the southern sections.
Group A is comprised of four rectilinear rooms (25-28) of approximately the same width but of varying lengths on its western side. There are no doorways between the rooms, and are therefore believed to be part of the casemate foundations that would have supported the western part of the palace (Maillot 2013: 4; Maillot 2014: 784). To the east of these rooms are five narrow, elongated rooms (29-33), again similar in width oriented east/west. Given the similarity between the arrangement of these rooms with that of Wad ban Naga, it is currently presumed that rooms 29 and 30 would also have served as casemates and rooms 31-33 as storerooms (Maillot 2013: 4; Maillot 2014: 785).

Group B, comprised of seven rooms (34-40) has a large central room (40) that presumably would have been divided by internal walls, none though remain. Room 39 comprises the northern border of group B. The western portion of this group has five rooms (34-38) oriented in a north/south manner. This area of interspersed thick walls (F24, F151, F28) made up of undecorated and unplastered red brick most likely served as the casemate foundation of an internal ramp. The decreased surface area also supports this conclusion since it would correlate to a higher level of the ramp (Maillot 2013: 5; Maillot 2014: 786). The rooms of group C (4, 41, 42) are poorly preserved and their length cannot presently be determined (Maillot 2014: 786).

Rooms 10-13 of group D are probably storerooms as evidenced by their rectilinear shape (10.9 m x 2.2 - 3.2 m). Room 9, the northernmost of this group, is the same length as the former rooms but is 6.5 m wide. The reason for the change in width is unknown at this time. The eastern portion of this group is badly preserved, making any conclusion difficult. Group E is a tripartite construction. Room 1 is the northern border for this group and measures 12.2 m x 5.1 m (Maillot 2013: 5; Maillot 2014: 786). To the west of this room is a

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30 Northern section: A = 20.5 m, B = 15.9 m, C = 25.5 m; Southern section: D = 21.8 m, E = 12.2 m, F = 19.2 m
long corridor (3) measuring at least 16.6 m in length. Five smaller rooms (2, 5-8) comprise the remaining portion of this element of the group. Two of the rooms are oriented east/west and located on the northern (2) and southern (8) ends. The three additional rooms are oriented north/south and bordered by rooms 2 and 8. Two narrow walls separate rooms 5-7, indicating they may have served as foundations for a two-row colonnade as in the palace at Wad ban Naga (Maillot 2013: 5; Maillot 2014: 786).

The final group is F (19-24), which is closed on its northern side by a corridor (24) measures 19 m in length and is oriented east/west. The remainder of the group consists of five rooms, all rectilinear in shape and lacks doorways between them. Rooms 22 and 23 have been interpreted as supporting casemates for a large room above making it unique to this building (Maillot 2013: 6; Maillot 2014: 787). Unfortunately, this section of the palace suffered significant destruction, which prevents any additional conclusions.

The palace can be preliminarily dated based on artifacts found, its design, and samples taken during excavation. Due to the presence of egg-shell ware in the debris, the palace could not have been built prior to the late 1st century BC. The similarity of design with the palace at Wad ban Naga could indicate it was constructed during the reign of Queen Amanishakheto therefore dating it to the late 1st century BC or early 1st century AD (Baud 2008: 59). Charcoal samples taken from an early stratigraphic sequence of the Eastern Hill yielded the dates 40 BC - AD 90 and AD 60-220. The overlap of these dates, AD 60-90, falls within the reigns of Natakamani and Amanitore to Amnikhareqerem (Baud 2008: 60).
II.Q. Wad ban Naga

Wad ban Naga is located approximately 130 km north of Khartoum on the east bank of the Nile. The site was originally explored and documented by Cailliaud and Linant de Bellefonds in 1821-22. After they left Wad ban Naga the site was visited but not extensively explored until Lepsius, along with his architect Georg Erbkam, made preliminary plans of the site and located some objects indicating an Egyptian New Kingdom presence (Vercoutter 1962: 268-9). However, it was not until excavations carried out by the Sudan Antiquities Service, along with financial support from France from 1958-1960, that the buildings were properly documented. Although this excavation was funded by France, due to Jean Vercoutter’s obligations in Khartoum, the work was completed under the direction of Sayed Thabit Hassan. After Vercoutter and his team finished their work at Wad ban Naga, the site was once again abandoned until 2009 when a team from the Czech Republic, under the direction of Pavel Onderka of the National Museum in Prague began their work.

Excavation began on the palace (WBN 100) in 1959 during the second season when investigation of the building covered by Kom B was orchestrated (Vercoutter 1962: 278). The palace (Figs. 168-170) measures 61 m x 61 m and is comprised of 45 rooms which are primarily rectilinear in shape and consist mostly of storerooms (Vercoutter 1962: 278-79; Welsby 1996: 124). The palace was constructed of a mud-brick core with a red brick exterior. The building has been attributed to the reign of Queen Amanishakheto because of a cartouche bearing her name discovered within the palace (Vercoutter 1962: 283), which would date the building to at least the first century BC. Once Vercoutter finished his work he left the palace exposed and much of the remaining mud-brick has since disappeared, rendering his notes as an invaluable source of information.
The main entrance was located on the southern side of the building and a central door led to a hypostyle hall (A, WBN 154)\textsuperscript{31} with six sandstone columns. To the left and right of the hypostyle hall are four doors which lead to storerooms (D, WBN 136; E, WBN 135; P, WBN 110; P', WBN 101; Q, WBN 111; Q'; WBN 102) containing pottery, a small altar, sandstone lions, and terracotta hawks. A second door at the northern end of the hypostyle hall led to an anteroom (B, WBN 155) and a sanctuary (C, WBN 156) (Vercoutter 1962: 279). The composite capitals, however, probably did not originally come from room C because the ceiling was seemingly supported by beams requiring long and large rectangular pilasters which would indicate they were used to support a columned room located in the second storey where the composite columns mostly likely originated (Vercoutter 1962: 279). This premise is further supported by the presence of a ramp (R, WBN 157) that provided access to the upper storey as well as luxury objects such as a silver ring decorated with the head of a ram and fragments of gold leaf. The existence of a second ramp and staircase in the western edifice (U, WBN 160)\textsuperscript{32} and the presence of sandstone column drums in room Y (WBN 128) were likely at the higher level than the natural floor level (Vercoutter 1962: 280).

On the western side there are many doors providing access to storerooms as well as to the second storey through room S (WBN 158), which contained square pillars, and the usage of a ramp (U, WBN 160). The western side of the palace provided access to the primary religious buildings, yet it was closed off at a later date as evidenced by secondary rough stone walls that blocked such access (Vrtal 2013: 58). Originally there were five entrances on the ground level. Three were service entrances, and the other two may have been grand

\textsuperscript{31} The letter designations for the rooms refer to Vercoutter 1962 (Fig. 168), whereas the numeric labels refer to Sievertsen 2002 (Fig. 169).

\textsuperscript{32} Ramp U on Vercoutter's plan is slightly ambiguous. The ramp is located on the western side of the building between Rooms V and S. Although on the plan it resembles the letter "D" based on the descriptions by both Vercoutter and Sievertsen, it is undeniably WBN 160.
entrances (Vrtal 2013: 58). On the eastern side of the building a ramp stretched ca. 21 m along the outside of the building. This ramp provided access to the second storey of the building (Vrtal 2013: 58). The eastern side of the building also had two entrances giving access to rooms W (WBN 143) and N (WBN 142). Both of these rooms had thick rectangular pillar bases that were probably were the foundations for large columns used to support hypostyle halls above them (Vercoutter 1962: 281). The northern side of the palace also had a ramp which probably served as an access point to the second floor (Vrtal 2013: 58).

During the 2009 preliminary excavations and survey of Wad ban Naga by the Archaeological Expedition to Wad Ben Naga, Onderka and his team discovered six column capitals to the south of WBN 100. These capitals were attributed to room WBN 154 Vercoutter room A) and were different in motif i.e. lotus shaped, Amun's ram heads, and floral composites. The team also found three uraei fragments from the southern entrance architrave (Onderka and Dufková 2011: 45). Additionally Onderka and his team discovered many architectural features around WBN 100 that cannot be definitively attributed to the ground floor and therefore might be helpful to reconstruct the upper level of the palace (Onderka and Dufková 2011: 46).

In the second season of the Archaeological Expedition to Wad Ben Naga which occurred in 2010 the team concentrated part of their efforts on conserving rooms WBN 154-156 (Vercoutter rooms A, B, C, respectively) sited at the southern entrance of WBN 100 (Onderka 2011: 55). During Vercoutter's expedition, the original floor of the entrance hall of WBN 154 was removed. Onderka and his team were able to recover traces of the plastered floor. As previously noted, the ceiling of WBN 154 was supported by six columns arranged in three rows of two each having the different capitals mentioned above. Each of these
columns stood upon bases composed of a mud-brick core with a burnt-brick exterior (Onderka 2011: 61). While working on conserving the wall segments in WBN 154 the team discovered an interesting feature in the room, "[t]he long segments were once supported at their base by means of mud-brick benches (mastabas) inserted into the mass of the walls giving the lower parts of the walls better stability as they did not stand on sufficiently stable foundations (probably only leveled terrain)" (Onderka 2011: 62). The benches have not been preserved, but they are visible through gaps that have identical dimensions located in the lower courses of masonry as well as the remains of headers that were part of the bodies of the benches. Additionally the mud-bricks of the benches were interwoven with the mud-bricks in the core of the walls (Onderka 2011: 62). Along with the work in WBN 154, the team also cleared and conserved the pillars of the receiving room in WBN 156. The excavators reached the original floor of the room which was discernible from the profile of the pillar. Each of the pillars stood on bases consisting of a mud-brick core and burnt-brick exterior as was also seen in WBN 154 and the pillars may have been used to support columns of the royal apartments located on the second storey (Onderka 2011: 63).

Although WBN is the best-preserved royal residence from the Meroitic period, only the ground floor of the plan can be reliably reconstructed. Of all the rooms and corridors present, up to 60 in total, only five rooms can confidently be labeled as storerooms. These rooms include WBN 135 (Vercoutter E), WBN 136 (Vercoutter D), WBN 111 (Vercoutter Q), WBN 110 (Vercoutter P), and WBN 104 (Vercoutter V) (Vrtal 2013: 59). Inside storeroom (V, WBN 104), the excavators discovered a deposit of elephant tusks and wooden planks, some raw materials such as ivory and ebony that might have been used to supply the royal workshops and a spherical black shiny vase in the middle of the layer (Vercoutter 1962:
The objects found in some of the other storerooms are similar and appeared in relatively large quantities. For example, terracotta lions (E/WBN 135), jars (P/WBN 110, Q/WBN 111), ivory and wood (V/WBN 104), and incised jars (Vercoutter 1962: 281; Vrtal 2013: 59). As seen in other buildings, many of the storerooms did not have doors and therefore could only be accessed by using ladders. This type of construction can be found in palaces at Jebel Barkal, Meroe, and Muweis.

Even though the upper storey of the palace is no longer preserved, some of its characteristics can be gleaned from elements found on the lower level. The presence of sandstone columns on the second floor is evidenced by their remains within the higher strata of what remains on the first floor (Vercoutter 1962: 280-281). Their original placement is suggested by load-bearing columns found on the lower level. Additionally the thickness of the walls and the length of the chambers indicate that the roof may have been barrel-vaulted (Vercoutter 1962: 280; Ali Hakem 1988: 95) but some rooms probably had a simpler, flat ceiling with beams (Vrtal 2013: 60). The upper levels would have been highly ornamented based on the quantity of finds that originated from the second floor. The walls had faience and stone decorations with animal and vegetal motifs as well as images of a queen (Vercoutter 1962: 282-283; Vrtal 2013: 60).

II.R. Jebel Barkal: B1500

B1500 (Figs. 171-174) is the largest palace at Jebel Barkal. Its foundations rest upon a square platform measuring 63 m per side and ca. 1.80 m in height (Donadoni 1993: 101; Welsby 1996: 124). The building has a mud-brick core and a burnt-brick exterior that was coated with a surface of hard plaster composed of chalk and pebbles and then whitewashed.
The whitewash was intended to prevent water damage to the building when the Nile would overflow, or in the event of rain (Roccati 2008: 251). B1500 is dated to the reign of Natakamani and Amanitore (mid-late 1st century AD) based on a tablet and inscription found in the building (Roccati 2008: 252; Roccati 2013: 255). The building was originally excavated by Sergio Donadoni beginning in 1978. Following Donadoni’s excavations, a team from the University of Rome "La Sapienza", headed by Alessandro Roccati, began working on the palace in 1993.

The palace (Fig. 172) is oriented on a north-south axis with an important entrance on the eastern (Nile) side. Each entrance is reached by a long monumental staircase (Roccati 1997: 12; Roccati 2008: 253). The staircase on the western (Jebel) side of the palace slopes down the outer wall and leads to the Amun temple (B500). To the southeast of the palace is an ersatz storage area, which was apparently used to house items being removed from the palace while the building was being dismantled (Roccati 2008: 253). The storage area contained stone sculptures such as lion statues, lintels, and parts of columns. These discarded elements of the palace may assist in reconstructing the free spaces within the palace rooms.

The northern side was the only one which was completely excavated, and an entrance was found. In the central part of the northern wall there is a staircase which consists of approximately 20 steps, only 7 of which are preserved, which terminates at a square terrace. Near this terrace are two sandstone statues of now fallen seated lions-column drums and capitals. A third lion statue was also identified indicating there may have been two sets of lion statues in the columned hall (Donadoni 1993: 103). At the base of the terrace, there was a gate with a stone threshold and lintel. The threshold was comprised of multiple stones whereas the lintel was one large stone, now reduced to fragments bearing an Egyptian-style
decoration of the winged sun disk. The floor of the courtyard has two rows of stone bases with three columns in each row, only three of which are preserved. The bases are made of a single row of burnt-brick rather than stone, similar to the floor which is composed of a concrete-type of pavement (Donadoni 1993: 104).

At the middle section of the eastern side of the northern wall there is another staircase comprised of at least three brick stairs. This staircase was constructed during a later building phase and may have functioned as a service passageway considering it was clearly designed to be discreet (Donadoni 1993: 104). It has yet to be determined how the staircase connects or plays into the rest of the building.

Past the courtyard, there are three rooms which are located side by side. The middle room has a passageway which would provide access to the area of the palace beyond these rooms. The walls of this room were originally plastered and decorated with gold leaf, prompting Donadoni to refer to this space as the "Gilt Passage". Beyond the Gilt Passage was a room with six column bases. It has been proposed that this room had a ceremonial character because there are no specific floors, and "a certain amount of blocks showing an architectural function even if they are not easily connected with each other and with the general feature, show that this space was probably a roofed one" (Donadoni 1993: 105). Therefore the excavators labeled this room the "Reception Hall". On the western wall of the Reception Hall is a stone-paved passageway which leads to an interior staircase. The staircase was very narrow and bent at a right angle which would have enabled the builders to erect a higher staircase in the small space.

Following the Reception Hall is a building constructed of local sandstone. This building is rectilinear in shape and has an E/W orientation. While the rest of the building is
made up of Nubian sandstone, the structure was initially discovered by its foundation which consisted of burnt-brick. Eighteen columns were positioned around the walls of the room with the bases placed in uneven numbers with five along the east-west axis, and in even numbers with six along the north-south axis. Within these columns are a second set of smaller columns, which were connected by screen walls. These smaller columns are better preserved and, when re-erected, were found to stand at a height of approximately 5.5 m. Donadoni proposed that this room is actually a kiosk, palace sanctuary, or a receiving hall of the king (Donadoni 1993: 106).

Located past the Reception Hall and the kiosk at the center of the building, is a rectangular room which is not on the same axis as the rest of the rooms so far described. It is constructed of burnt-brick and has three column bases. The excavators hypothesized that the roof was supported by beams which were leaning on, or anchored to, this central row of columns. When this room was first discovered, the archaeologists thought it might have been the kitchen due to the amount of ash on the floor and the number of fireplaces. After further investigation, however the team realized that it was not the kitchen because underneath the ashy layer was an architectural element which would indicate that the ashy layer was actually from the floor above. The function of this room remains unknown. Next to this hall are two small rooms that have roughly mud-plastered walls that appear to be the dumping ground for items that were no longer useful to the palace.

The work during Roccati's first field season focused on the entrances of B1500. The southern and eastern entrances were believed to have been built prior to the northern and western entrances because the former were constructed then plastered, and the latter were built after the initial construction and plastering. Additionally, the southern entrance is
aligned with the central court whereas the northern and eastern entrances are slightly askew to it. Problematically, the western entrance was too damaged to be investigated. The southern entrance is also associated with the Amun Temple B500, and has a 3 degree turn in order to be in alignment with it (Roccati 1997: 13). This entrance and the temple may have been connected by means of a ceremonial way.

During the 1996 season, Roccati and his team uncovered two doorways made of red brick located around the peristyle court. On the southern side of the inner court are two entryways that correspond to two parallel oblong rooms (Roccati 1997: 14). The western room is a corridor originating from the southern access that is aligned to the ceremonial way on the opposite side of the peristyle court (Roccati 1997: 14). The eastern room has a smaller doorway and a hard white floor which can only be accessed from the peristyle court. There are regular holes in the floor which might indicate the presence of amphorae used for water storage (Roccati 1997: 14).

The platform upon which the palace rested was comprised of thick-walled casemate foundations which were filled with rubble (Roccati 2013: 254). Despite the tenuous state of preservation of B1500, the excavators were able to make some relevant observations about the building. There is a central peristyle hall that connected all sides of the palace by means of a corridor. From this columned hall there were two mirror-image spiral ascending staircases (Roccati 2013: 254). Although staircases have already been noted, the thickness of the walls of the platform and these additional spiral staircases suggests that there was undoubtedly a second storey to B1500.
II.S. El-Hassa/Damboya

The site of el-Hassa (Fig. 175) is located approximately 200 km north of Khartoum along the Khartoum-Atbara road. The first explorers of the site included John Lewis Burckhardt, Linant de Bellefonds, and Cailliaud during the Nineteenth century. Despite the early investigation of the site, it was not until 1975 that el-Hassa attracted the attention of the archaeological community when Francis Geus and Sid Ahmed investigated the influence of the Kabushiya Pump Scheme (Lenoble and Rondot 2003: 109). The site is currently being excavated under the direction of Vincent Rondot, head of the French Section of the Directorate of Antiquities of Sudan where the team is excavating el-Hassa as well as Damboya.

In the area designated as Damboya, located 1.4 km southeast of el-Hassa, two mounds were discovered measuring 150 m long, 130 m wide, with the peaks measuring 1.60 m high in the southwest and over 3 m in the center (Lenoble and Rondot 2003: 109). The remains are composed of building material including burnt-brick covered with painted plaster and sandstone. Any mud-brick that might have been present appears to have eroded away. Underneath the large mound a building is visible which has a square plan, and measures at least 40 m per side (Lenoble and Rondot 2003: 109). Based on the square plan and the building materials used — burnt-brick, stone architectural details, stucco, and paint — the excavators determined that this structure is a palace with potential annexes. The excavators have compared this palace to the one at Wad ban Naga and B1500 at Jebel Barkal, which would date it to the late 1st century BC - mid-1st century AD, yet additional excavation needs to be conducted prior to framing absolute conclusions.
II. T. Dongola Reach: Selib

The site of Selib is located on the right bank of the Nile in the Dongola Reach and was documented in 1984 during a Canadian survey of the Nile Valley. At this site, there is a rectangular fortified enclosure (Fig. 176), referred to by the locals as *murabba kebir* — Arabic for "big box/square" — with a structure situated centrally within it. That structure is marked by a line of stones (Żurawski 2002a: 81). The team found stones, crushed burnt-brick, and large lime plaster fragments in the corners of the fortification wall (Żurawski 2003: 167). The walls of the enclosure may have been as thick as 3-4 m but to date there is no trace of a gate or entrance.

Certain similarities based on kite photographs between this structure and the ones at Banganarti and Ukma, as well as the burnt-brick fragments, lime plaster, and the small quantity of ceramics, originally identified this structure as a church (Żurawski 2002a: 81; Żurawski 2003: 167). In 2007 a geophysical team, led by Tomasz Herbich, revealed a round feature measuring 8 m in diameter to the east of the main building within the enclosure (Żurawski 2008). Żurawski and his team tested around the circular structure and discovered it was constructed of burnt-brick and contained architectural remains of a stone repository of oil lamps and a small column possibly from an altar, thus confirming the religious nature of the round feature.

The SDRS mission also surveyed an area of Selib one kilometer from the church. This section had an abundance of high quality pottery such as the fine "eggshell" ware which was identified as dating from the 1st-2nd century AD of the Meroitic period (Żurawski 2008). When the tops of the walls were cleared, a large architectural complex measuring ca. 900 m² was uncovered. This complex was also surrounded by private houses and had pottery...
scattered around the area (Żurawski 2008). Given the monumental and domestic nature of this building, it is possible that it served as a palace for a local governor or ruler. Further excavation of the structure will certainly reveal further details about the function of this building during the Meroitic period.

II.U. Jebel Barkal: B2400

Another building was found by Roccati and his team in 2001 after receiving a request from NCAM to investigate the area surrounding B1500. The particular area in question had been noted by Kendall who proposed that a structure may be present in that area due to stone slabs located on the surface. Further excavation was conducted to assess the extent of the later Meroitic period (1st century - 4th century AD) building, now designated as B2400 (Figs. 177-180) and its importance to the site. A modern enclosure wall cuts into B2400, but when the excavators began digging around it they discovered an ancient well-paved road that crossed the entire building at a north-south angle and led in the direction of the Amun temple (Roccati 2014: 295). The road may have been constructed to mimic Greek architecture, specifically the dromos (Roccati 2008: 252), thereby serving as a potential access road between B2400 and the Amun temple.

B2400 measures approximately 40 m x 40 m, and has an east-west axis. While originally believed to have been constructed atop a raised platform (Roccati 2008: 251), further excavation revealed that the building was built on leveled ground (Roccati 2014: 295). The palace was encircled by a red brick coated peripheral wall that was left without plaster or decoration (Roccati 2014: 294). The main entrance is on the western side of the building and is comprised of a terrace which is accessed by a ramp. Roccati and his team
discovered additional entrances on the eastern and northern sides of the building but these were badly damaged (Roccati 2008: 252; Roccati 2014: 295). A fourth entrance on the southern side was proposed but to date there remains no evidence for an entry.

Within the palace is a peristyle hall with Hellenistic architectural elements. Fragments of columns including bases, drums, capitals, and white sandstone architraves were hidden in holes dug by plunderers (Roccati 2008: 251). B2400 also has thick mud-brick walls and the presence of stairs which would indicate a second storey. There is no additional decoration on the walls and the ceramics discovered therein indicate a long occupation of the building (Roccati 2008: 252).

There appears to be a relationship between B2400 and B1500, similar to the relationship between B100 and B1200. Both B2400 and B100 are approximately the same size and lack casemate foundations. B100 has two hypostyle halls aligned on an axis, whereas B2400 has one hypostyle hall and a large unroofed space (a courtyard?) in lieu of a second hall (Roccati 2014: 297). It is possible that B2400 and B100 served a similar purpose to B1500 and B1200 respectively, a premise which will be discussed in Chapter 7.

II.V. Faras

Faras is located 40 km north of the Second Cataract and 70 km south of Karanog. The site was excavated by the Oxford Expedition in Nubia under the direction of F. Ll. Griffith from 1910-1913. To date Griffith's findings remain the only published excavation report of the site. The Western Palace (Figs. 181-183) is located a mile to the west of the western channel at the edge of the desert. It is comprised of a great courtyard with multiple stone chambers which caused the excavators to denote this building as a palace (Griffith 1926: 21).
The palace was constructed of mud-brick and measured 36 x 38 m. It had a pillared courtyard that was surrounded by multiple small rectangular chambers. Within the courtyard was a building that measured 11 m² (Griffith 1926: 21). The walls on the eastern side were worn down to the rock level. The other three sides of the building were only preserved to a height of one to four bricks. At the southeast corner of the central building, there is a staircase which potentially indicates a second storey (Griffith 1926: 21). Within the stairwell, the excavators found a fragment of a stone window grille decorated with a pair of carved flowers.

The earliest datable object found near the northwest corner of the palace is a Greek-style potsherd, probably from an imported wine jar, which supports a date ranging from the 2nd century BC to approximately AD 50 (Griffith 1926: 22). Several chambers — 1, 26, 27, 34, and 43 — contained 36 ostraca, 30 of which have numerals on them. The high number of ostraca from these rooms indicates that they served as scribal offices and, given the presence of the numbers on them, the ostraca were probably administrative in nature such as accounts or tax lists (Grzymski 1982: 172). Additional objects found throughout the building include a Greek ostracon and fragments of finely polished black vessels, some with incised designs. There were also small circular pots and covers of polished black ware, clay seals with faint illegible impressions, and fragments of blown glass (Griffith 1926: 22).

In the northern half of chamber 8, a layer of ashes was found on the floor along with a large pot, measuring 32 cm in diameter, filled with clean sand and surrounded by a square of bricks (Griffith 1926: 23) potentially suggesting that this area served as a food preparation area. In the northwestern corner of the colonnaded courtyard were three large pots that had sunk into the floor with ashes around them. The central pot contained baked seeds of
_*Mimusops schimperi* or persea seeds, which the excavators interpreted to mean that the area had been destroyed while cooking was underway (Griffith 1926: 23). Date seeds, *dôm*-palm nuts, *Balanites aegyptiaca* seeds, a *Cordia myxa* seed, as well as sorghum remains were also found. Additionally, the court located to the east of the central building had a thick layer of goat or sheep droppings and the court to the south of the central building had a layer of cattle droppings. These may have been from the Christian rather than the Meroitic period when people would have traveled to the nearby churches and cemeteries (Griffith 1926: 23).

While remains of Meroitic hieroglyphic writing were scarce around the site, there was the frequent presence of Meroitic cursive inscriptions. These could be found on stone altars and stelae in the cemetery and on potsherds in the Western Palace as well as throughout the site (Griffith 1926: 24). Unfortunately, the building projects during the Christian period, *sebakh*-digging, and the flooding of Lake Nasser in 1964 destroyed many of the earlier buildings and subsequent evidence.

### III. Palaces of Uncertain Date

#### III.A. Naga

The site of Naga is located approximately 150 km northeast of Khartoum and about 35 km east of the Nile. It was originally discovered by Linant de Bellefonds and Cailliaud in 1822, but it was not until 1844 that Lepsius documented the ruins at the site. After 1844, Naga remained untouched until 1995 when the Egyptian Museum Berlin, under the direction of Karla Kroeper, began its excavations.

A city survey was conducted by James Knudstad and Rosa Frey during the team's first and second field seasons. During the 1995 survey, Knudstad and Frey focused on an
area located near the Lion Temple. That structure measures 100 m NW/SE x 70 m NE/SW and there is an enclosure wall which extends to the NE for approximately 150 m (Knudstad and Frey 1998: 193) (Figs. 184-185). Three buildings were recorded and labeled 1100, 3600, and 3800, and four more buildings were partially recorded and labeled 4100 - 4400.

Building 1100 measures 28 x 28 m and is oriented NE/SW. It is built of mud-brick with stone entryway stairs. The building is comprised of 31 rooms surrounding a central court (Knudstad and Frey 1998: 193). Building 3600 measures ca. 35 x 36 m and is oriented NE/SW. It is constructed of lime-plastered stone rubble with cut stone entryway stairs. The building contains 23 rooms surrounding a central court that featured fluted stone columns (Knudstad and Frey 1998: 193). Building 3800 measures ca. 12 x 41 m and is oriented SW/NE. It abuts the enclosure wall extending NE. This building is comprised of 21 rooms that are arranged in three interconnected rows. Building 3800 is most likely temple storerooms (Knudstad and Frey 1998: 193).

The second city survey was conducted in an area measuring approximately 500 m NW/SE x 200 m SW/NE and lies within an eastern and northeastern enclosure (Knudstad and Frey 1998: 193). The eastern enclosure measures ca. 173 m N/S x 145 m E/W and the northeastern enclosure measures 90 m N/S x 205 m E/W. There are also partially defined enclosures to the NW that appear to define the northern and eastern extent of the development of the site (Knudstad and Frey 1998: 193). The survey included the recording of nine buildings (1300, 1400, 1700 - 2200, 2400) and two temples (600 and 700).

Building 1300 measures 38 x 37 m and is constructed of rubble and mud-brick. There are no traces of lime plaster or cut stone (Knudstad and Frey 1998: 196). The exterior walls measure 1.2 - 1.6 m in thickness and are preserved to a height of 4 - 6 m to the upper floor.
level where 26 rooms can be discerned. There may have been a staircase in the northeast section of the building as well as an entrance in the center of the northern or southern wall (Knudstad and Frey 1998: 196). The surveyors discovered that the upper walls were supported by heavier lower walls, which might indicate a second storey.

Building 1400 measures 33.5 x 33 m and is constructed of rubble covered with lime plaster. There were also remains of stone columns and pilasters (Knudstad and Frey 1998: 196). The 20 rooms recorded there were organized into two ranges on either side of a N/S subdivided court. There were collapsed stone columns in the larger rooms and the southern court which probably divided the areas into roofed and unroofed sections (Knudstad and Frey 1998: 196). Entryways are visible on the eastern and western sides.

Building 1700 measures 31 x 24.5 m and is built of mud-brick and rubble. The building has 20 rooms which contained fragments of blue painted lime plaster and ostrich eggshells (Knudstad and Frey 1998: 196). Building 1800 measures 25 x 38 m and was probably attached to Building 1300. It was constructed of rubble and lime plaster and contained 24 rooms and corridors as well as a staircase in the northeastern corner (Knudstad and Frey 1998: 196). There was at least one entrance in the northern wall of the courtyard and a second potential entrance from the southern wall of the courtyard.

Building 1900 measures 97.5 x 54 m and is constructed of rubble and mud-brick. There are 43 rooms here which might be divided into three separate buildings with courts and smaller rooms (Knudstad and Frey 1998: 196). Building 2000 measures 33 x 29.5 m and is constructed of rubble and burnt-brick with cut cornerstones. There are also remains of lime plaster on the exterior of the building, which also contained numerous fragments of blue-glazed ceramic tiles as well as a fallen sandstone papyriform column with lime plaster
Building 2100 measures 15 x 14 m and was probably a shrine or a small temple. There were two seated lions on either side of the eastern entrance and a third seated lion near the southeast corner (Knudstad and Frey 1998: 196) suggesting another pair of lions was at this entrance.

Building 2200 measures 23 x 28.5 m and was constructed of rubble. This building might have had a residential or administrative component in conjunction with Temple 600 (Knudstad and Frey 1998: 196). There were 21 semi-interconnected rooms that were potentially subdivided into four separate suites. An entryway in the northern wall might have also served Temple 600 (Knudstad and Frey 1998: 196). Building 2400 measures 22 x 16 m and is set in the southeastern corner of the enclosure. It consists of 8 rooms constructed of rubbed and reused burnt-brick door jambs. There were also columns drums found in room 7 (Knudstad and Frey 1998: 196).

Excavations at Naga have focused primarily on the religious architecture here, specifically the Amun Temple, the Temple of Apedemak, and the Kiosk, while further investigation of the domestic structures remains unfinished. The buildings described above can be used for comparative purposes regarding layout and possible room function, but no other information can be obtained from these buildings until additional work is done on them.

IV. Concluding Remarks

This chapter has provided a thorough overview of the plans, phasing, architecture, and material culture of the buildings classified by scholars and excavators as palaces dating to the Napatan and Meroitic periods. This documentation will serve as the foundation with
which to interpret these structures as royal residences and its aim is to establish a comprehensive list for reference purpose. The function of the buildings within Napatan and Meroitic society with regard to the religious and socioeconomic spheres, as well as the cogency or legitimacy of classifying them as *palaces*. This matter will be addressed throughout the subsequent chapters of this dissertation.
Chapter 5: The Religious Context of the Palaces: An Analysis of the Relationship between the Amun Temples and the Napatan and Meroitic Palaces

Nubian royal cities not only had an urban landscape but a sacred landscape as well. This can be seen through the Amun temple-Royal palace complex. The apparent connection between the Amun temple and royal residence has been studied by numerous scholars, many of whom believe that the connection lies within the king's participation in important festivals where the king would travel to various sites and perform his duties in the temples.

In order to comprehend the significance of the Amun temple-royal palace complex, a brief summary of the importance of the god Amun within Nubian society, particularly with regard to kingship ideology, will introduce this chapter. An overview of the coronation ceremony and New Year festival will be provided in order to establish the king's relationship with Amun, important female deities, and the role of royal women during his ascension to the throne. An examination of the physical connection between the Amun temple-Royal residence complex will conclude this chapter.

I. The God Amun and his Role in Nubian Kingship

The Amun cult in Nubia evidenced in the Napatan and Meroitic periods developed from one already established during New Kingdom Egypt. It incorporated local aspects, such as showing the deity as a ram or ram-headed man. A ram cult was already established locally in Nubia at the time of the early Kerma period, attested in graves dating to this period. Rams were buried as offerings to the dead and were adorned with decorated sun disks made of ostrich feathers. Also at Kerma ram skulls were discovered with decorative horn protectors (Haynes 1992: 41-42) (Fig. 186).
While Amun was worshipped in Nubia, possibly as early as the Middle Kingdom, it was during the New Kingdom that this cult began to flourish. A significant development for the cult of Amun in Nubia occurred with the construction of the temple dedicated to Amun at Jebel Barkal (B500), which provided a connection between this temple and the main temple of Amun at Karnak. During the New Kingdom in Egypt, the ram-headed Amun of Nubia was syncretized with the ram-headed god Khnum of Elephantine (Kormysheva 2004: 112). Thutmose III constructed a temple at Elephantine dedicated to Amun who was worshipped along with Satis and Anukis, members of Khnum's triad. The connection with Khnum allowed Amun to become a god who also controlled the inundation (Török 2002: 14; Kormysheva 2004: 113). The kings of New Kingdom Egypt and later Kushite kings started adding Amun's curved horns to their headdresses (Figs. 187-190) illustrative of Amun's new status.

The Egyptian name of the god, *Imn*, corresponded with the Nubian word for water, *aman*; therefore, the Nubian ram-headed god might have been associated with water. This is paralleled by the Meroitic form of Amun, read as *amani* rather than *Imn*, which can be seen in the rendering of the kings' names (e.g. Tanutamani, Anlamani, Talakhamani, etc.). It is possible that the Egyptians combined Amun with the Nubian ram-headed god in order to strengthen their control over Nubia by providing the Nubians with a bringer of the inundation.

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33 For a comprehensive study of Amun temples in Nubia, see Rocheleau 2008.
34 The species of ram associated with the god Khnum was *Ovis longipes palaeoaegyptiacus* and was attested in Egypt as early as the Predynastic period. The ram species associated with the god Amun was *Ovis platyra aegyptiaca* which was known from the Middle Kingdom, approximately Dynasty 12, onward. These species are differentiated by the type of horns, the former having horns that are wavy and stretch horizontally above the head, and the latter having horns that curve down and around the ears toward the mouth. Khnum was also closely associated with water, particularly the source of the Nile, as that was under his domain. Furthermore, rams of the *Ovis platyra aegyptiaca* were used to find sources of water in the desert (Goeb 2015: 171). For additional discussion about the two types of rams, their functions in ancient Egypt, and their association with water, see Leclant 1950: 202-205; Vogelsang-Eastwood 2000: 269; Ciampini and Bąkowska-Czerner 2014: 696; Goeb 2015: 170-172. I would like to thank Katja Goeb for alerting me to additional sources for this section.
In the early 4th century BC, Harsiyotef was given the crown by Amun of Napata who then also gave the new king the inundation, "To you is given the crown of the land of Nubia. I give to you the 4 corners of the land in its entirety. (I) give to you the good water (i.e. the inundation). (I) give you a sky of good rain...Now I saw a great Inundation which Amun, my good father, gave to me" (Grimal 1981a: plates 12a, 12; cf. Eide 1996: 442-443). Harsiyotef then proceeded to Amun of Kawa and Pnubs, as well as Bastet of Tare, in order to tell them the good that Amun of Napata had bestowed upon him.

During the reign of Piye (ca. 747-706 BC), there was a restoration of the Amun cult throughout Nubia. This is particularly notable at Napata, Kawa, and Pnubs during the early part of his reign. The presence of the manifestations of Amun of Napata, Kawa, and Pnubs indicate that there was a reestablishment of the ancient cults of the local forms of Amun which developed into an integrated program (Török 2006: 233). Amun's importance to the Nubian kings was attested in inscriptions found on stelae and temple walls. In the Election Stela of Aspelta (Cairo JE 48866), Amun is venerated as the original god of Nubia who would choose the next king, "He (Amun) has been the god of the king of Kush since the time of Re. It is he that guides us. The kings of Kush have (always) been in his hands. He has (always) given (it) to (his) son whom he loves" (Grimal 1981a: plates 6a, 6; cf. Eide et al. 1994: 237). This passage illustrates that by the reign of Aspelta (ca. end of 7th century BC) Amun was already established as a primary deity in Nubia who legitimized the king.

The notion of a divinely-chosen king was recognized by the Kushite rulers, yet whether it existed prior to contact with Egypt is uncertain. Kushite rulers were interested in aspects of Egyptian kingship dogma because in Nubia there were more conflicts and choices associated with succession than in Egypt. One of the primary aspects of Egyptian kingship
dogma that was upheld by the Nubian rulers was the confirmation and re-enforcement that the heir apparent was the "rightful Horus" who sat on the throne (Yellin 1995: 244).

In addition to having their reigns legitimized by Amun, the Nubian kings also believed in the maintenance of ma'at. At the time of their coronation, the kings strove to reestablish cosmic harmony through the rebuilding of temples, military activities such as defeating foreigners, and providing donations to the priesthood and temples. Taharqa was particularly avid in this endeavor and rebuilt temples at former New Kingdom period centers such as the Temple of Horus of Miam at Faras, Horus of Buhen at Buhen, and the Temple of the deified Senwosret III and Dedwen at Semna West (Török 2002: 72-73). During the reign of Irike-Amannote, the temples at Doukki Gel were also rebuilt (Bonnet and Valbelle 2006: 38). The reestablishment of abandoned temples has also been recorded in New Kingdom Egypt. This was noted by Horemheb in his coronation inscription when he mentioned the renewal of temples from the Delta to Nubia (Gardiner 1953a: 15, line 22).

II. Evidence of the Coronation Ceremony and New Year Festival

The notion of transformation was fundamental to the maintenance of ma'at in the royal sector through festivals such as the Sed-festival, Confirmation of Royal Power at the New Year, and the coronation ritual (Goebs 2011: 57, 58). The ceremony was not only about the coronation of a new king but also about the renewal of the coronation of the existing king. The connection between the New Year festival and the coronation ceremony of the king was evident in textual accounts, as well as in the association between the Amun temple and Royal residence, which was especially highlighted during these events (see below).
The ideal coronation ceremony took place in conjunction with the first day of the Inundation (i.e. New Year's Day) which was witnessed through the reemergence of the New Kingdom Nubian Amuns as bringers of the Inundation and renewers of life at the New Year. Although the coronation of the new king was intended to coincide with the New Year, the need to appoint a successor and crown him could not always be arranged around the calendrical dates (Lohwasser 2014: 230). Therefore, the new king would be crowned, and when the New Year followed, a Jubilee with renewal rites would be performed.

II.A. Purification of the King

The Nile was a vital element of Egyptian and Nubian society. It provided not only a means of transportation but was also used as a means for purification for both buildings and people before and during religious ceremonies. The idea of purifying the new pharaoh with water was examined by Gardiner in his 1950 article entitled "The Baptism of Pharaoh."

Gardiner stated that while this ritual did not necessarily occur at the same time as the coronation ceremonies, it did have a connection with the accession of the new king. According to the relief scene of Philip Arrhidaeus from Karnak (Fig. 191) there appears to have been four elements of this rite (Gardiner 1950: 7). The first was the purification of the new king by Horus and Thoth. Then Horus and Thoth would place the crown of Upper Egypt upon the king's head. Next, at the invitation of Thoth, Montu of Thebes and Atum of Heliopolis took the king into the presence of Amun-Ra, and then the king was acknowledged as the rightful ruler by Amun-Ra completing the coronation rites (Gardiner 1950: 7).
Purification of the king was an important element in establishing his royal power, evidence for which can be found in Kushite temples. The Amun Temple from Meroe, M260, featured a shallow square basin in the center of the hypostyle hall (Fig. 192). Although originally identified by Garstang as the location for animal sacrifice (1912: 47), this structure was later identified as the site of the king's purification in the temple at the time of coronation (Török 1997b: 120-121). Temple T at Kawa has a scene of the purification of Taharqa located on the north wall of the Forecourt (Fig. 193). The king is shown being purified by Horus and Thoth who are shown in the following scenes as participants in the king's coronation (Török 2002: 95). Following his purification and coronation, Taharqa is then brought into the presence of Amun of Kawa, thereby completing his enthronement ceremony.

Another representation of the use of water by the Napatan and Meroitic kings can be found in Egypt. In the Temple of Amun at Karnak there is a scene with a description that suggests water rites are being performed. These rites may have taken place during the epagomenal days, or at the beginning of the flood (Lohwasser 2014: 232). Given the shift in time that would have occurred since neither the Egyptians or Nubians accounted for a quarter day loss during each year, by the 7th century BC, the Inundation and the start of the New Year would not have coincided. However, since the New Year began with water rites and the acquisition of the water from the Nile, these ceremonies would have plausibly occurred even without the rising of the Nile (Lohwasser 2014: 233).

35 The Egyptian calendar consisted of 10 days per week, three weeks per month, four months per season, and three seasons per year — Akhet (flooding), Peret (planting), and Shemu (harvest) — thus amounting to 360 days. There were also five epagomenal days — "days above the year" — added to the end of the year, bringing the total number of days in a year to 365. However, the ancient Egyptians and Nubians did not account for the additional quarter day each year through the use of a "leap year", causing the calendar to move by one day every four years. For a detailed study of the Egyptian civil and lunar calendars, see: Leo Depuydt. *Civil Calendar and Lunar Calendar in Ancient Egypt* (Leuven: Peeters, 1997).
During the Napatan period there was a connection between water and the divine nature of Jebel Barkal (Ciampini and Bąkowska-Czerner 2014: 696). A graffito on Jebel Barkal shows a ram-headed snake with the upraised arm of Kamutef. Here, Amun's power is represented as a liquid being poured from the interior of the mountain representing the king's ability to unite the kingdom (Ciampini and Bąkowska-Czerner 2014: 696). Amun of Napata was recognized as the provider of universal power, which emphasizes water as a purifier and royal legitimacy (Eide et al. 1996: 499; Ciampini and Bąkowska-Czerner 2014: 696). This tradition continues into the Meroitic period as evidenced at building B2200, located near B1500, at Jebel Barkal. Many potsherds were discovered during excavations there bearing a variety of motifs including Egyptian religious, Hellenistic, and local themes (Ciampini and Bąkowska-Czerner 2014: 697). The Egyptian motifs mainly consisted of ankh and lotus flowers with one having a representation of Hathor and offering tables. This type of pottery decoration can be found on Meroitic funerary vessels along with representations of frogs. The imagery of frogs and lotus flowers are symbols of rebirth and eternal life along with their association with the life-giving power of the Nile (Ciampini and Bąkowska-Czerner 2014: 698). A serpent motif, representing Amun as the god Kamutef, can also be found on Meroitic pottery from Jebel Barkal. A vessel from B1500 has a similar motif of a serpent with vine leaves growing out of it. This is a combination of Egyptian and Hellenistic religious motifs of chthonic powers and rebirth (Ciampini and Bąkowska-Czerner 2014: 698).

A strong connection with the Dionysian cult is also represented on Meroitic pottery from various other sites. At Meroe, a cup depicting a funerary feast showing dancing men with palm branches, a water jar, and a wine amphora was found (Kendall 1984: 711-715; Török 1987b: 86-87; Ciampini and Bąkowska-Czerner 2014: 698). A vessel from the
Meroitic period cemeteries at Karanog has a depiction of a Dionysiac dance with amphorae between the figures (Woolley and Randall-MacIver 1910: 54-55; Ciampini and Bąkowska-Czerner 2014: 698). The Dionysian cult is also represented in the decor of the palace of Natakamani and Amanitore (B1500) which may be due to the connection with the Osirian myth of resurrection. In addition to being associated with the Dionysian cult, drinking wine and libations was connected with the New Year festival and the inundation (Sist 2006: 475-481; Sackho-Autissier 2010: 203-207; Ciampini and Bąkowska-Czerner 2014: 699).

II.B. The Coronation Ceremony

One of the few examples of the coronation ceremonies performed by the Egyptians that can be equated with the Nubians is the account of the Coronation of King Horemheb. Since Horemheb was not a member of the royal family, he had to affirm his claim to the throne through the support of the gods similar to the early Kushite kings. Located on the back of a dyad statue of Horemheb seated beside his wife Mutnodjme, currently in the Museo Egizio, Turin (Figs. 194-195), is an inscription describing his ascent to the office of king. In an attempt to legitimize his claim to the throne, Horemheb states that he had possessed kingly qualities since birth as he was born with his body clothed in majesty (Gardiner 1953a: 14, line 2). The coronation ceremony was held in Thebes, as was traditional during the New Kingdom, where Amun bestowed upon him the office of kingship (Gardiner 1953a: 15, line 13).

The coronation rites would have taken place inside the temple rather than the palace despite the terminology used to describe the location of the ceremony. Although the terms ʿḥ and pr nsw are both designations for the royal palace, when Horemheb was crowned by
Amun-Ra he was listed as being in the pr nsw, which is a term generally not applied to a temple (Gardiner 1953a: 25; Bell 1985: 273; O'Connor 1995: 278; Pagliari 2012: 232-275). Horemheb went to the pr wr of Amun's daughter and received her on his forehead as the gods of the pr nsr shouted joyfully (Gardiner 1953a: 24-25). Both the pr wr and the pr nsr are rooms inside the temple; therefore, the ceremony was performed in the temple rather than the royal residence, presumably in Horemheb's palace at Karnak in a manner similar to the coronation of Hatshepsut (O'Connor 1995: 278). The need to have the coronation inside the temple walls may have been the impetus for the Nubian rulers to build their palaces alongside the Amun temples (see below).

During the Nubian coronation journey, which included rites performed at Meroe, Napata, Kawa, and Kerma (Hofmann 1971: 22-25), the manifestation of Amun in residence at each site conferred royal power upon the king. The coronation procession might have crossed the Bayuda Desert between Meroe and Napata, as it was the shortest distance between the two cities, and then continued on toward the other coronation sites via the Nile (Hofmann 1971: 20; Wicenciak 2005: 259). In the Inscription of Irike-Amannote (2nd half of the 5th century BC), that when the new king traveled to Napata to receive the ceremonial cap crown and blessing of kingship from Amun, he never stated that the journey occurred via the Nile, which is specified later in the text. This could be also an indication that the king and his retinue traveled from Meroe to Napata using the Bayuda Desert road.

In addition to possibly utilizing desert roads, Irike-Amannote, like his predecessors Piye and Tanutamani, also performed his coronation ceremonies in conjunction with the course of the Nile and the New Year: "Off went His Majesty to Pure-mountain (Jebel Barkal)...Downstream sailed His Majesty, (re)founding all the nomes after he arrived at
them...Then His Majesty arrived at this nome called Koroton...His Majesty arrived at Finding-(the)-Aten (Kawa)...Then His Majesty arrived at this nome, called Pnubs" (Macadam 1949: plates 18, 19, 23, 24; cf. Eide et al. 1996: 405-409). Therefore, he was following the route of the inundation while performing his coronation ceremonies.

The coronation procedure during the Napatan period can be gleaned from the Election Stela of Aspelta and the Inscription of Irike-Amannote. In both documents, the palace is a central element where the new king would have been in residence prior to his coronation. The army gathered there following the death of the previous king, "Now there were trusted commanders in the midst of His Majesty's (Aspelta's) army...they said to the entire army, 'Come, let us cause our lord to appear'" (Grimal 1981a: plates 6a, 6; cf. Eide et al. 1994: 234-235), "Then His Majesty's (Irike-Amannote) army together with the commanders of His Majesty's army went into the palace" (Macadam 1949: plates 17, 22; cf. Eide et al. 1996: 401).

They would then either consult the oracle of Amun of Napata as in the Election Stela of Aspelta (Kormysheva 1994: 188-192), highlighting the connection between the palace and the Amun temple, "Off went His Majesty's commanders and the 'friends' of the palace to the temple-compound of Amun...They said to them (the priests), 'O may this god Amen-Re...cause that he give us our lord" (Grimal 1981a: plates 6a, 6; cf. Eide et al. 1994: 238), or immediately name the chosen successor as recorded in the Inscription of Irike-Amannote, "Our heart is (set) on giving him the throne [of] this [land]" (Macadam 1949: plates 17, 22; Eide et al. 1996: 401). The god or the officers would all agree to the selected individual, "Then this god, Amen-Re...said, "It is he (Aspelta) who is the king, your lord"" (Grimal 1981a: plates 7a, 7; cf. Eide et al. 1994: 240), "Our (the army's) heart is (set) on giving him
(Irike-Amannote) the throne [of] this [land]" (Macadam 1949: plates 17, 22; cf. Eide 1996: 401). Finally, in the Election Stela of Aspelta, the new king presented himself to his army, "Out came His Majesty (Aspelta) [from] the temple-compound into the midst of his army...Then this entire army raised a very loud cry...their hearts being exceedingly glad" (Grimal 1981a: plates 7a, 7; cf. Eide et al. 1994: 244). Following the election, the newly-appointed king would participate in the coronation ceremonies.

Being elected by the army and the priesthood was not enough to solidify a king's ascension to the throne; the presentation of the crowns and the scepter of kingship was also an essential element of the coronation process (Hofmann 1971: 18; Kormysheva 1994: 192-195). Evidence for the coronation ceremony and the receipt of the crowns of kingship can be found at Napata in a building labeled B1100 by Reisner, located behind the palace B1200 (Kendall 2008: 125). To the west of B1100 are temples B200 and B300, which were built by Taharqa and dedicated to Hathor, Mut, and Tefnut, as well as other minor goddesses who were all anthropomorphic forms of the Eye of Ra. The position of B1100 directly in front of the Sacred Mountain and behind B1200 was probably due to the building's relationship with these goddesses (Kendall 1997: 338). B1100 was identified by Kendall through texts discovered by Reisner on fragmentary door jambs (Figs. 196) located in the eastern end of B1200. These jambs were associated with a doorway that marked the western corner of room B1234 and led from that room into corridor B1237-1239 (Kendall 1997: 339). If the king turned right from the doorway and went down the corridor, he would have approached a rear exit from the palace, flanked by the Prudhoe lions, presumably present to symbolize the rwyty lions. From this exit the king would have passed between the lions and followed a pathway, which is still faintly visible, to B1100 (Kendall 1997: 339).
The inscriptions on the door jambs of B1234 were not translated by Reisner; however, Kendall examined the photographs showing the inscriptions and discovered there was a clear cartouche of Anlamani (late 7th century BC) on the left jamb (Kendall 1997: 339). On the right jamb more of the inscriptions were preserved. The first line reads, "...one goes out to the Great House...and one enters [?] the House of Flame" and continued on to the second line, "...in peace, in peace...your wholeness/prosperity is the wholeness/prosperity of the Eye of Re and vice versa; your wholeness/prosperity is the wholeness/prosperity of the Eye of Horus and vice versa" (Kendall 1997: 339-340). The Great House (pr wr), which was typically associated with Nekhbet, the goddess of the White Crown, and the House of Flame (pr nsr), traditionally associated with Wadjet, the goddess of the Red Crown, were the shrines visited by the Egyptian kings during their coronation ceremonies in order to receive their crowns and uraei (Kendall 2008: 125). These locations were also mentioned above in the Coronation of Horemheb; however, by his reign, they were rooms visited within the Temple of Karnak rather than the traditional temples at el-Kab and Buto. Therefore, B1100 appears to have been instrumental in the coronation ceremonies at Napata where the king would have received his crowns and uraei.

Along with the red sandstone sockets in the New Year's Hall of Aspelta (see below) throne emplacements were also found in room B1233, which can be dated to the reign of Anlamani (Kendall and Wolf 2011: 252). The sockets discovered in room B1233 were identical to those found in room B602 of temple B600, and set against the southwest side of the room. This placement would have enabled the king to sit facing northeast to the direction of B800 and B900 (Kendall and Wolf 2011: 252). Comparatively, in both the New Year's Hall of Aspelta and room B1233, there is no evidence for stone or brick podia that would
have supported a throne. Instead, given that the palace floors were not paved, it is expected that wooden podia would have been placed directly onto the floor between the baldachin columns (Kendall and Wolf 2011: 254).

Another throne emplacement was found in room B520 of temple B500 atop the large, now broken, black granite podium of Piye (Kendall and Wolf 2011: 254). This podium is similar to the one in room B603 from temple B600, both of which have two sets of four holes suggesting sockets for the legs (Fig. 197). The inner holes for the B603 podium were square in shape whereas the ones for the B520 podium are L-shaped, and the outer holes are round (Kendall and Wolf 2011: 254). The inner holes would have presumably anchored a wooden throne dais as the outer holes would have supported a baldachin (Kendall and Wolf 2011: 254, n. 42; Wolf 2006: 242; Török 1997a: 309; Török 2002: 55).

The podium from B603 is reminiscent of the royal pavilion found on the Narmer macehead where the king is shown seated atop a stepped podium beneath a baldachin. The steps are sometimes replaced with a ramp which might imply that the podium in 603 had ramp-like sides. This combination of the stepped or ramped podium, a throne, and a baldachin was referred to as a $tnt\tilde{u}$ which appeared in enthronement scenes, particularly those involving the heb-sed festival (Kendall and Wolf 2011: 254). In scenes representing the heb-sed festival, two $tnt\tilde{u}$ are typically shown back to back, but were more likely next to each other in actuality. The king would have ascended each one during the heb-sed festival, representative of his assumption of rulership over Upper and Lower Egypt. Piye was depicted atop a $tnt\tilde{u}$ in his heb-sed scenes from court 501 within temple B500 (Fig. 198). If it is to be assumed that this ceremony took place at Napata, the scene could actually represent the activities that took place within B600 (Kendall and Wolf 2011: 256).
A dais-room, or royal throne room as described above, was a common feature of both Dynasty 25 and Meroitic Amun temples. This type of room would have been partially roofed and contained an eastern-oriented altar which was accessible via a ramp-like staircase (Wolf 2006: 242), in other words, a $tnt\beta t$. Sometimes interpreted as a room involved in the coronation ceremony, it might have also been a sanctuary, the $wabet$, for the worship of Amun-Ra or Ra-Horakhty during the New Year's Festival (see below) (Török 1997a: 309-310; Török 2002: 55, n. 56-57; Wolf 2006: 242; Kendall and Wolf 2011: 254, n. 42). Ra-Horakhty is frequently shown crowning the king as well as having authority over the kingship and crowns (Kendall and Wolf 2011: 254, n. 42); therefore, it is certain that the coronation and New Year's ceremonies were associated with one another. Each ceremony had elements celebrated within both the temples and palaces. Similar layouts and orientations of the Amun temples at Napata, Sanam, Kawa, Tabo, Meroe, and Naga suggest a similar cultic function associated with these buildings.

During the Meroitic period a change to kingship ideology occurred, which is probably the result of a new dynastic line, the shift of the royal burial ground from the Napatan region to the Meroitic region, and the official move of the capital from Napata to Meroe. With these changes came a new found emphasis on Nubian gods including Apedemak, Arensnupis, Sebiumeeker, and the Nubian Amuns (Török 1997a: 425). The construction of the Great Enclosure at Musawwarat (see Chapter 4) during the reign of Arnekhamani (2nd half of the 3rd century BC), demonstrates a new kingship ideology reflecting the importance of the king as a warrior (Török 1997a: 438).

The new Meroitic coronation scenes are represented on columns 7, 8, 9, and 10 from Hall 101 of the Great Enclosure at Musawwarat es-Sufra. The scene on the right of column 7
(Fig. 199a and b) represents a prince wearing an ankle-length robe a diadem surmounted by a uraeus. The prince stands before Amun of Kawa, who is touching the prince's right elbow, and the goddess Satis (Török 1997a: 439). Between the prince and the deities is a squatting child on a lotus representing the young Horus. The manifestation of Amun in this scene is meant to be the divine father of the king, similar to Amun of Napata and Amun of Pnubs (Török 2002: 181). The other scene shown on column 7 illustrates the prince as the newly elected king who is now shown wearing the Kushite cap-crown with diadem and a single uraeus as well as a ram's horn curled around his ear. The king's attire is the royal coat that fastened at the shoulder. He is being embraced by Horus on his left and Thoth on his right. Isis, located beside Horus, is shown giving the king the Red Crown of Lower Egypt.

The first scene on column 8 (Fig. 201a and b), on the right side, shows the king in the traditional royal regalia of the Kushite cap-crown, surmounted by a uraeus, a ribbon hanging down his back, ram's horns curling around his ear, and royal coat fastened at the shoulder. Isis is shown affirming his kingship by holding the ribbon hanging from the king's crown (Török 1997a: 439; Török 2002: 181). The king and Isis stand before Sebiumeker. Between the king and the god is a lotus with a winged cobra wearing the Double Crown of Egypt emerging from it. The cobra extends its wings toward the newly-elected king as a sign of protection (Török 2002: 181). The second scene on column 8 shows the king before Apedemak and his consort Amesemi. Depicted between the king and the deities are bound captives attached to a rope held in the king's left hand, which is representational of Apedemak decreeing the king's power over his enemies (Török 1997a: 439; Török 2002: 181).

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36 Török describes the king as wearing a double uraeus (2002: 181), yet only a single uraeus is discernible in the drawing by Lepsius and in Török's fig. 26 (Fig. 200).
The first scene on column 9 (Fig. 202a and b) is damaged but shows the king protected by a falcon above him. He faces a god, presumably Sebiumeker, and a goddess who present the fastening device for the royal coat to the king (Török 1997a: 440; Török 2002: 182). The second scene is better preserved. The king is shown here wearing his royal regalia and carrying a bow. He is being led by Arensnuphis to a ram-headed god wearing the atef crown who touches the king's right elbow. The Amun represented in this scene is probably Amun of Kawa who bestows a bow on the king at his coronation (Török 1997a: 439; Török 2002: 182). In the Inscription of Irike-Amannote from Temple T at Kawa, the king stated that while he was at the Amun Temple complex at Kawa, "Then there was given to him (Irike-Amannote) a bow together with its arrows of bronze (metal?)" (Macadam 1949: plates 19, 24; Eide et al. 1996: 408). Amun of Kawa is typically depicted with the horizontal wavy horns of *Ovis longipes palaeoaegyptiacus* rather than with the curved horns of *Ovis platyra aegyptiaca* (Török 1997a: 304), the former being the type of horn seen on the ram-headed deity in this scene.

The scene on the left of column 10 (Fig. 203a and b) represents the king, protected by a falcon above his head, before Apedemak. Behind the king is a prince, the heir apparent. Although traditionally the king could only receive his kingship from the manifestations of Amun of Napata, Kawa, and Pnubs, the gods Apedemak, Arensnuphis, and Sebiumeker were the primary deities at Musawwarat es-Sufra; therefore, they played a larger role in the coronation process at this site (Török 1997a: 442; Török 2002: 184). The scene on the right depicts the king facing Amun of Napata and Mut while wearing the crown of the hunter god Arensnuphis, a tasseled cord — regalia designating the king as a high priest and an emblem of Nubian hunter deities — (Török 1997a: 440-441: Török 2002: 182, 186), and sandals.
The king is shown offering a pectoral to Amun, which represents the symbolic fulfillment of royal duties (Török 2002: 183). Both deities in return offer ankh-signs to the king. Between the king and the deities is a winged cobra emerging from a lotus and wearing the Double Crown of Egypt and extending its wings toward the deities rather than the king. Given that this scene is intended to serve as the final element of the investiture of the new king and his association with Arensnuphis (Török 2002: 186), the reverse direction of the winged cobra may be a representation of the king now being responsible for the protection of Nubia and the proper worship of the deities responsible for his legitimization.

II.C. The Role of Women in the Coronation of the King

Royal women in Nubia, particularly the king's mother and sister(s), were an integral element to the king's legitimization (Kormysheva 1994: 187-210; Kormysheva 1999: 239-251; Lohwasser 2001a). Along with the ceremonies at Meroe, Napata, Kawa, and Kerma, the enthronement rites were sometimes performed in the temple of Bastet at Tare, as stated in the Annals of Harsiyotef and the Stela of Nastasen (Hofmann 1971: 24). If Tare was important enough to warrant the king's journey in order to receive his crown from Bastet, then it is quite possible that at some point during the Kushite period a royal residence existed at Tare (see Chapter 4). In the Annals of Harsiyotef (1st half of the 4th century BC), the king stated that he visited the traditional coronation sites and then, "I went to Bastet of Tare and told about what Amun of Napata said" (Grimal 1981a: plates 13a, 13; Eide et al. 1996: 443). The Stela of Nastasen (2nd half of the 4th century BC) also details the king's coronation route which included a visit to Tare in addition to the primary coronation sites. The king stated, "The 24th day (of the month), (I) went up to Bastet who dwells in Tele [Tare], my good
mother. She gave me life, a long beautiful old age, and (her) "left breast" (Schäfer 1905: 151; cf. Eide et al. 1996: 482-483).

In both Egypt and Nubia, milk was used in important rituals - funerary, coronation, temple - as a way to rejuvenate and transform the receiver. The use of milk in a non-funerary context typically confers divinity upon the recipient (Yellin 1995: 256). The ritual of breastfeeding at the conclusion of the coronation ceremonies was already practiced in Egypt during the New Kingdom (Kormysheva 1999: 241; Wicenciak 2005: 262), and a goddess nursing the king was a representation of the mother-son relationship that was an important element. Through this act, the king was infused with the essence of royalty and brought in to the divine realm (Lohwasser 2001b: 70). The goddesses associated with nursing the king were Isis, Mut, and Bastet (Fig. 204). Isis was the quintessential mother goddess as the mother of Horus and subsequently the mother of the king. On a silver plaque from the tomb of Queen Nefrukekashta, Kurru 52 (MFA 24.928) (Fig. 205), a queen is shown being nursed by a goddess which was rare, yet it demonstrates the importance of women as life-givers and as strong counterparts to the king.

In Napatan, and presumably continued into Meroitic, society the role of the king's mother was defined by her relationship with her son, the king, much like the role of Isis to her son Horus (Kormysheva 1994: 202; Kormysheva 1999: 239). On the Stela of Taharqa from Kawa (ca. 685 BC) the king describes how his mother was joyful upon seeing her son on the throne in Memphis, "She (the king's mother Abar) found me appearing on the throne of Horus (in Memphis), after I had received the diadems of Re, and was wearing the uraei on my head...She was exceedingly joyful after seeing the beauty of His Majesty, (just) as Isis saw her son Horus appearing on the throne of his father Osiris" (Macadam 1949: plates 9, 10;
In his Enthronement Stela, Anlamani (late 7th century BC) also described his mother's happiness upon seeing her son as Horus, "(When) she (the king's mother Nasalsa) found her son effulgent (i.e. radiant) like Horus on his throne, and she was exceedingly joyful after she saw His Majesty’s beauty, (just) as Isis (was when she) saw her son Horus effulgent (i.e. radiant) on earth" (Macadam 1949: plates 15, 16; cf. Eide et al. 1994: 223).

Along with Amun, his consort Mut was also honored in the king's lineage as his mother. In Taharqa's building inscription on the Mut Temple at Jebel Barkal the inscription states, "What he made as his monument for his mother Mut, Lady of Heaven, Mistress of Bow-land: he built her house and enlarged her temple-compound, renewed in fine, white sandstone. That she might give him all life from her, all stability from her, and all dominion from [her]" (Dunham 1970: 12, figure 3; cf. Eide et al. 1994: 133). The importance of the king's mother during the coronation ceremonies is attested through her role as a sistrum shaker. Pouring libations, such as water or milk, before Amun was also attributed with Nubian royal women, which was a privilege traditionally associated in Egypt with the king (Lohwasser 2001b: 67). The female appropriation of that function in Nubian iconography is notable. The lunettes on the stelae of Tanutamani, Harsiyotef, and Nastasen, show scenes of the kings' enthronements with female family members in attendance, shaking a sistrum or pouring libations. Their presence and participation at the coronation ceremony was neither ornamental or accidental, thereby emphasizing the significance of the king's female counterpart (Lohwasser 2001b: 68).

The importance of honoring Bastet in the coronation ceremonies might have had an origin in Dynasty 25 as Bastet appears in the titulary of Piye. On an abacus in B500 the king
stated he was a **s3-b3tt**, Son of Bastet, therefore acknowledging Bastet's importance to the Nubian kings. This differed from the pilgrimages to the Amun temples at Napata, Kawa, and Kerma since those journeys were to gain the support of the priests of Amun (Wicenciak 2005: 262). Bastet's importance could also be connected to the goddesses Mut, Sekhmet, and Tefnut throughout Egyptian history, particularly through their mutual association as the Eye of Ra (Otto 1972: 628-630; Silverman 1991: 41-42; Kendall 1997: 332; B. Lesko 1999: 134-135, 139, 144, 266-267, 275; de Jong 2005). As discussed above, Taharqa built temples at Jebel Barkal dedicated to Hathor, Mut, and Tefnut, who were believed to be manifestations of the Eye of Ra. Perhaps in Nubia, Bastet also assumed that role, thereby establishing her temple at Tare as another location where the king would receive his royal crowns and uraei.

II.D. The New Year's Festival

The official New Year began when the Nile started to rise, an event that did not, as stated above, always align with the civil calendar. The ceremonies performed then were focused on the renewal of life and fertility for all of Egypt. The correlation between the palaces and the Amun Temples may be due to the king’s participation in the New Year’s Festival and his traveling to various sites to perform his duties. While at the sites, the king stayed in a residence that was likely not a year-round royal residence, but rather a residence that may have only been used during the time the king was in the city participating in temple ceremonies (see Chapter 2).

The importance of the participation of the king in the New Year’s Festival activities is illustrated in various textual sources from Dynasty Twenty-five and the Napatan period such
as the Great Triumphal Stela of Piye (728 BC). In the text Piye coordinated his campaign with the inundation, "I shall sail north myself...After the ceremonies of the New Year have been performed, I shall offer to my father Amun on his beautiful festival, when he makes his beautiful appearance of the New Year that he may send me in peace to see Amun in the beautiful festival of the Feast of Opet" (Grimal 1981b: plates I, VI; cf. Eide et al. 1994: 77). This gave Piye's expedition religious significance since he conquered Egypt in the same manner as the course of the Nile (i.e. from the south to the north). When Tanutamani made his campaign to Egypt in 664/663 BC he followed a similar path and timeline, "His Majesty went to Napata...North sailed His Majesty to North-land...There arrived His Majesty at Elephantine...Then His Majesty sailed across to Elephantine. There he came to the temple-compound of Khnum-Re, lord of the Cataract...North went His Majesty to the city, Thebes of Amûn...North sailed His Majesty...There arrived His Majesty at Memphis" (Grimal 1981a: plates 2a, 2; cf. Eide et al. 1994: 198-200). Thus Tanutamani joined the sacred landscapes of Nubia and Egypt through his journey (Török 2002: 18; Török 2004: 159).

There are two scenes in the Mut temple at Jebel Barkal that illustrate Amun of Pnubs as a bringer of the inundation and guarantor of the renewal of Nubia at the New Year (Török 2002: 13). On the left side of the scene above the door to room B306 (Figs. 206-207) is a representation of Amun of Pnubs as a ram-headed sphinx upon a stand with Horus shown as a child on a lotus flanked by two fecundity figures in the upper register. The birth of Horus on the lotus between the fecundity figures signifies the coming of the inundation and renewal of the New Year (Török 2002: 13). To the right of this scene is the main register showing the king offering ma'at to a series of gods including Thoth. The association of Thoth as a bringer of the inundation and the birth of Horus on the lotus with Amun of Pnubs symbolizes Amun
as a guarantor of the inundation and one who would renew the land at the New Year (Porter
and Moss 1995: 211; Török 2002: 13-14). During this journey, the land's sacred and political
geography would have been unified around an Amun-temple-royal residence complex
representing the whole of the land (Török 2006: 234). Having the coronation ceremonies at
the various sites may have also served as a way to commemorate the unification of the once
independent territories.

The importance of the New Year's festival, and its occurrence within the royal
residence, is especially attested within palace B1200 at Jebel Barkal. A series of rooms were
designated as the New Year's Hall of Aspelta where four columns bearing the name of
Aspelta confirm that he was the builder of this portion of the palace. All four columns stood
on a base measuring approximately 110 cm in diameter and were comprised of nine segments
(Kendall 1997: 326). The columns were all painted white with red, blue, and yellow details
decorated on the top and bottom. The drums were carved with six goddess figures each
holding a large rnpt-sign and an ankh (Fig. 208). Only one of the goddesses could be
identified by name s3-rnpt "Protection of the Year".

The columns were topped with carved rams' heads and sun disk crowns with Hathoric
uraei on top of them on all four sides (Kendall 1997: 328; Kendall and Wolf 2007: 85). In
addition to the elaborate column capitals, there were papyrus bud capitals in a lower section
of the column (Kendall 1997: 328). When Kendall and his team excavated the southeast wall
of room 1215, they discovered a buried ram's head capital fragment that had been
documented in one of Reisner's photographs. There were traces of paint applied directly to
the sandstone rather than plaster causing all of the original paint to be intact. The background
was red-brown, the ram horns were painted white with fine yellow interior lines, the face and
ears as well as the uraeus and sun disk were painted yellow, and the tuft between the horns was probably painted blue (Kendall 1997: 329).

The northeast wall of the room was faced with sandstone carved in relief and painted. The first block showed the lower portion of an incised figure of Aspelta facing left toward the Sacred Mountain (MFA C5686) (Kendall 1997: 325). The king is shown wearing a long robe with his right foot and calf in a striding position. There are also traces of red paint (Kendall 1997: 325). It is possible that the entire scene might have shown the king, followed by a royal lady, and standing in front of Amun inside Jebel Barkal. Similar scenes have been identified in room 303 of temple B300 at Jebel Barkal (Fig. 209) and in the Aspelta chapel at Sanam (Figs. 210-211). The second block was the left door jamb showing two vertical lines of text, one with the name Napata in it and the other with "...like his [father] Re every day" (Kendall 1997: 325). The third block, only known through the original photograph, was the right door jamb.

There were four red sandstone sockets in the floor of the northeast side. Each of the sockets measured 40 cm in diameter with well-cut circular holes incised in the center measuring 15 cm in diameter and 40-42 cm deep (Kendall and Wolf 2007: 84). They formed a rectangle measuring 2.3 m x 3.01 m and probably served as sockets for wooden legs of a canopy or for legs of a platform. The king would have sat under the canopy or on the platform facing the southwest wall toward a large formal doorway measuring approximately 1.92 m in width (Kendall and Wolf 2007: 84). This space served as the setting for ritual ceremonies associated with the New Year (see above), and for pacifying the dangerous goddess associated with the five epagomenal days. Under the canopy, the king would have been able to watch the rising of the Nile (Lohwasser 2014: 231). A secondary smaller door
was located in the south of the southeast wall and measured 1.26 m wide. The larger door probably served as a formal entrance for officials to greet the king or for the king to go to the temples. The smaller door probably provided access to the royal apartments (Kendall and Wolf 2007: 85).

At the center of the room the excavators discovered two base fragments of a sandstone statue. It measured 62 cm² and approximately 78 cm high prior to its damage (Kendall 1997: 329). Above the square base, on all four sides, there are large sun disks with uraei carved in high relief. This led the excavators to conclude that this base was a statue of a goddess as the Eye of Ra or in some other form, an offering stand, or the base for a statue of the king protected by the Eye of Ra (Kendall 1997: 329). In 2007, additional fragments were found. These fragments indicate that the sun discs were painted with necklaces, which had been around the necks of the goddesses (Kendall and Wolf 2007: 86). This strongly suggests that the base fragments found during the 1996 field season were part of a statue of a goddess in her guise as the Eye of Ra. Due to the high occurrence of religious iconography and the significance of goddesses given attributes of the Eye of Ra, this room repeats the importance of these spaces with regard to the unification of the sacred and secular.

As briefly mentioned in Chapter 4, during Garstang's excavations, the team's secondary discovery was a rubbish pit at the northern side of the building, which contained numerous faience, pottery, and other miscellaneous fragments (Garstang and Sayce 1912: 49). The faience objects consisted of sistra and ankh-signs presented to Amun at the New Year and inscribed rings bearing the names of Aspelta, Aramatelqo, Malonaqen, and Si'aspiqo, which dates the pit to the earlier building phase of approximately the 8th - early 5th centuries BC (Garstang and Sayce 1912: 49; Török 1997b: 154). These objects, along
with temple furniture, an ointment jar dedicated by Aspelta, statuettes, name plaques, shrine inlays, and divine standards all indicate this pit was used as a cachette for discarded temple items (Török 1997b: 154). Garstang mentioned the discovery of inscribed broken columns and walls of stone (Garstang and Sayce 1912: 57). These columns, along with the New Year votive offerings, indicate that this room is comparable to the one from B1200 (Lohwasser 2014: 232).

At the Treasury of Sanam, Griffith discovered a broken seal bearing the name of Piye. The inscription on the seal reads, "[May Amun, Lord of the] Thrones of the Two Lands in the sacred Mountain [give] a good year to the Son of Ra' Pi(ankh)y" (Griffith 1922: 123, plate LIX; Vincentelli 2011: 274) (Fig. 212a). In addition to the seal, faience rings (Fig. 212b) were also found in the Treasury at the cemeteries at Sanam which bore inscriptions reading, "Open a good year/good New Year" or "[god's name], open a good year" (Griffith 1922: 123; Lohwasser 2014: 232). These rings may be interpreted as amulets to ensure safety during the uncertainty of the epagomenal days prior to the New Year (Lohwasser 2014: 233). In addition to seals and cartouches bearing the kings' names, ka-plaques devoted to the New Year were also part of the findings. One such plaque, dedicated to Senkamanisken reads, "May Amun open a good year (for) Senkamanisken".37 Given that the ritual objects found at Meroe and Sanam all bear royal names, they can all be attributed to the royal renewal of the new year (Lohwasser 2014: 234).

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37 In Griffith's rendering of the text, he transliterates it as: [wp] 'Mn rnp nfr [s R' Šnq-] 'Mn-skni mr 'Mn, and translates it as: Ammon grant a good New Year to Senq-aman-seken, beloved of Ammon" (Griffith 1922: 123).
III. The Amun Temple-Royal Residence Complex

The organization of Nubia was centered around an Amun temple-Royal residence complex that enabled the land to be comprised of equal governmental units wherein each individual unit was a representation of the ideal whole of the land (Török 2002: 16). This relationship between the temples and palaces was identified in a seminal article by David O'Connor (1989) in which he stated that there was a fixed relationship between the palace orientation and the axis of the Amun temple during the New Kingdom. As mentioned in Chapter 2, the palace played a role in the Egyptian cosmos, which can be seen through the plan, shape, and decoration of the palaces (O’Connor 1989: 74). While clearly the function of the palace was intended to be one of administrative and governmental function, the need to maintain order enabled the palace to play a role in the Nubian concept of the cosmos as well.

The palace façades, similar to the temple facades, depicted scenes of royal dominion over foreigners which sometimes appeared within the palace on columns and door jambs (O’Connor 1989: 77). Interior walls probably had scenes of royal ceremonies that would have taken place within the palace, as well as processions of troops out of the building. This is similar to temple scenes showing ritual activity taking place within the temple walls along with processions traversing the court and leaving the temple (O'Connor 1989: 77). The ceilings in the palace were painted to imitate the sky and the columns inside the building were decorated with plant capitals. According to O'Connor, these similarities indicate that, "within the context of the palace, the king and the ceremonies associated with him were seen as paralleling in significance and cosmic authority the gods and their rituals" (1989: 77).

When pharaoh had important announcements to make, they were proclaimed from the audience hall located n imy wrt of Karnak temple (O'Connor 1989: 79). This location was
retranslated from "west" to "on the starboard or right-hand side" by O'Connor in order to refer to the moment the barque of Amun-Ra emerged from the pylons of the Karnak temple during festivals. Therefore, a palace located to the northwest of the temple would also be located on the starboard side of the barque of Amun-Ra, and the right side of the processional avenue, which was the place of highest status for the Egyptians (O'Connor 1989: 79; Török 2002: 20).

This relationship between the palaces and Amun temples has been noted in sites across Nubia, particularly at Jebel Barkal and Meroe. The palaces were oriented in the same manner to the processional avenue of the associated Amun temple since the king's movement in divine processions could be either toward the temple or the palace as indicated by the New Year Hall of Anlamani in B1200 and the cachette from M294 (see Chapter 4).

Palaces B1200 and B100 were both oriented on the "starboard" side of the main Amun temple B500 and the lesser Amun temple B800. Palace B1500 was also associated with the main Amun temple B500; however, the palace was located on the "port" side of the temple. This orientation is unconventional but did not pose a problem since there was presumably an entrance on the "northern" side of the building that would have led directly to the temple. If upon further excavation B2400 is also proven to be a palace, then a similar arrangement between B2400 and B500 would be expected as with the relationship between B1500 and B500.

The palaces at Meroe were located in relation to two different temples - the Sun temple M250 and the Amun temple M260. On the "starboard" side of M250 are palaces M251-253 and M255. Palace M251-253 had an entrance located at the northwest corner of the building which led directly into the temple. Palace M255 was oriented similarly to M250
as M251-253; however, it was located slightly southeast of the entrance. Having M255 off-center from the palace might indicate that it served as the temple palace for the king's retinue rather than for the king himself.

The Amun temple, M260, had several non-associated buildings that have been classified as palaces comprised of the M900 series (923, 950, 995, 996, 998), M294, M295. Conversely, M750 is associated with the Amun temple M260. The M900 series of palaces were all located in the northern section of the royal enclosure. They did not provide direct access to the temple, yet there were two gates in the northern portion of the enclosure wall that would have allowed the king to exit and proceed to the temple, entering on the "port" side, as noted with B1500. Palaces M294 and 295 would have had a similar problem accessing the temple as the M900 series. The palaces were located within the enclosure wall in the southern portion of the royal city behind M260. The king and his retinue would have had to exit the city through a gate in the southeast section of the enclosure wall and then would have proceeded to the Amun temple from the "starboard" side.

Another possible, and far simpler, explanation for the location of the palatial buildings within the enclosure wall is the presence of another Amun temple between the M900 series and M294 and M295. Török (1997b: 30) proposed that there was an Amun temple in this location; however, he suggested that it was oriented north-south rather than east-west. This arrangement does not comply with the traditional orientation of Amun temples throughout Nubia and does not conform to the space available within the Royal Enclosure. Rather, if an Amun temple had been built within the Royal Enclosure, it no doubt would have been oriented east-west. A geomagnetic survey was performed, but the results were inconclusive for the presence or absence of any structures as of this date.
Unlike the other palaces within the enclosure wall behind M260, Palace M750 was located outside the Royal City walls. It was positioned in direct connection with the processional way on the "starboard" side of the temple. The king would have exited the palace through the northern pylon gates and proceeded directly to the main eastern entrance of the temple.

After the third season at Wad ban Naga, Onderka commented that the Eastern Temple (or Temple 500) was probably dedicated to Amun (2012: 119), which was confirmed following the fifth season after discovering a sandstone statue of Amun with his consort, Mut, in Room J (Onderka et al. 2013: 6, 8). The foundations of the building were composed of reused burnt-bricks from the palace façade. Therefore, the temple was constructed after the palace fell out of use. A cartouche bearing the name of King Natakamani was found in Room M of WBN 200, which dates this temple to the first half of the 1st century AD, after the reign of Queen Amanishakheto (Onderka and Vrtal 2014: 71-72). During the fourth excavation season, Onderka and his team continued their work on the so-called Typhonium (WBN 200) and discovered the remains of an earlier system of walls underneath the floor level of the temple. Designated WBN 700 (Onderka 2013: 6; Vrtal 2013: 58), these walls may be an earlier temple associated with the palace.

Another site frequently discussed in relation to Napata is Sanam, situated at the end of the Wadi Abu Dom. The location of an Amun temple constructed by Taharqa and dedicated to Amun, Bull of Nubia, this temple may have had a theological connection with temple B500 at Napata. Scholars have suggested that this temple may have been part of the coronation journey although there is no textual or archaeological evidence to support that theory. However, this site does appear to have been significant. If Sanam is the location
called Teqi mentioned in the Nastasen Stela (2nd half of the 4th century BC) from year 8 of his reign, then it was associated with Alara, specifically where he grew up (Eide et al. 1996: 477), which, as mentioned above, was an important element of justifying kingship. Additionally, when Griffith excavated the site, he found no evidence for a royal residence despite the presence of a building named, "The Treasury" by Griffith, with monumental storerooms and elephant tusks (Griffith 1922: 77-118). Therefore, Wicenciak has proposed that dedicating a temple to a manifestation of a Nubian Amun may have been a way for the royal family to declare a degree of independence from the priesthood of Amun at Napata and to establish a chapel for themselves that was not subordinate to the priesthood (2005: 255).

At Kerma the connection between the royal residences and deities was also apparent. The Western Deffufa, now known to be a temple, was a central element of the Classic Kerma town. Palaces were constructed within proximity to the Deffufa to enable the king to perform his religious duties there. When the town site was moved to Doukki Gel, a similar layout was repeated here. The palace remains were oriented at a right angle to the axis of the temple along the dromos (Bonnet et al. 1997: 110), which again allows the king direct access from the palace to the temple.

**IV. Concluding Remarks**

While the primary sites discussed herein show evidence for the Amun Temple-Royal Residence complex, the palaces at other sites discussed in Chapter 4 might also have a similar arrangement. Sites such as el-Hassa/Damboya, Muweis, Faras, Naga, and Sonijat might contain an Amun temple that has yet to be discovered in proximity to the palace(s). Other sites, such as Musawwarat es-Sufra, serve a function that was primarily religious rather
than secular. However, Török has suggested that the Great Enclosure at Musawwarat es-Sufra should be classified as a "desert palace" with Hall 101 serving as the throne room (2002: 176-177). The palace of Amanishakheto at Wad ban Naga is flanked by Temples 200 (the so-called Typhonium) and 300 to the west, and Temples 400 and 500 to the east; therefore, some sites may have served as a residence when the king or queen was honoring other gods and goddesses.

The significance of Amun in association with the king and the legitimization of his kingship can clearly be attested throughout Nubia. This relationship was originally introduced by the Egyptians but was eventually modified and developed into the Nubian concept of Amun that remained in effect throughout the Meroitic period. The king's participation in the coronation journey at Meroe, Napata, Kawa, and Kerma allowed him to independently reaffirm his royal power from each of the manifestations of Amun (Török 1992: 115; Pope 2014: 38). Performing the ceremonies at the different sites enabled the power of the king to be associated with the person rather than a specific location particularly throughout the Dongola-Napata Reach (Török 1992: 115; Pope 2014: 40). Thus where the king was in residence was the seat of his authority.
Chapter 6: The Socioeconomic Context of the Napatan and Meroitic Palaces

In order to provide a broad context of the buildings, the previous chapters have been devoted to various aspects of the Napatan and Meroitic palaces through the examination of their Egyptian New Kingdom predecessors, the influences of the surrounding cultures on their design and decoration, and their function within the sacred landscape. The aim of the present chapter is to examine the palaces within their Nubian context in order to establish a framework that will enable the development of a definition of a palatial building during the Napatan and Meroitic periods.

I. Socioeconomic Structure

The Nubian landscape, in contrast to Egypt, was much drier and did not have the same agricultural advantages and large-scale irrigation systems that supported an agriculture-based economic system in Egypt have not been identified in Nubia. Furthermore, the range of climatic areas and the susceptibility of the northern and central regions to minor temperature and rainfall variations would have impacted the stability of the agricultural and pastoral potential in Nubia (Welsby 1996: 153). Most settlements were located adjacent to the Nile in order to utilize the annual flood in preparing the fields for cultivation; those settlements located away from the Nile were in places, such as the Butana Steppe, where agriculture could be supported without the annual flood (Ali Hakem 1972: 639-646; Adams 1981: 2; Bradley 1986: 25-31; Edwards 1996: 20; Pope 2014: 14).

Although agriculture was not on as large a scale as seen in Egypt, cities the size of Napata or Meroe would still have required enough agricultural surplus to address the considerable non-agricultural population that included iron-workers, masons, potters, and
other craftsmen (Shinnie 1976: 91; K.A. Ahmed 1999: 299). Food surpluses could also have been used to employ corvée labor for building projects such as temples, tombs, and palaces, but the amount of food surpluses may not have been able to be stored for long periods of time. Therefore, the Nubian economy might not have been centralized as it was in Egypt (Adams 1981: 9; Edwards 2004: 168). Instead, the Meroitic state, and presumably the Napatan state as well, may have consisted of small subsistence farmers who did not contribute to the state and, subsequently, did not receive anything from the state to supplement their crops (Adams 1981: 9). This differs greatly from our understanding of how the Egyptian state managed their people through the redistribution of supplies via state temples.

In addition to agriculture, pastoralism is also indicated by Nubian documentation. The Dream Stela of Tanutamani (Cairo JE 48863) (ca. 664 BC) has been used to support this theory. The text states, "He (Tanutamani) built for him (Amun) another porch (portal?) for going outside to make his milk from his many\textsuperscript{38} herds, being tens of thousands, thousands\textsuperscript{39}, hundreds, and tens\textsuperscript{40}, without reckoning the number of yearling calves of their mothers" (Grimal 1981a: plates 3a, 3; cf. Eide et al. 1994: 201-202). Whether this statement can be used as empirical evidence of pastoralism is uncertain as it may simply have been a point of boasting done by the king to emphasize his wealth and prosperity (Adams 1976: 148; Adams 1981: 3; Edwards 2004: 167).

\textsuperscript{38} Here the translator, Richard Holton Pierce, omitted transliterating 𓉕𓉝𓉜 (I1), although the word does appear in the translation, which can be clearly seen on both the photograph of the stela as well as the line drawing.

\textsuperscript{39} Pierce again omits a portion of the text clearly visible on both the photograph and line drawing. Here ḫꜣ demise should be included to account for his translation of "thousands".

\textsuperscript{40} It is possible that the translation should not have an individual breakdown for each number, which is slightly cumbersome in the rendering, but rather should be read as an actual number: m 诓𓊬 𓉕𓉝𓉜 𓉝𓉜 mḏw "being 33,330". This translation would also clarify why the author specified the number, yet did not include the quantity of yearling calves. Otherwise, a general statement that there were tens of thousands of cattle in the herd(s) would be sufficient.
Given the differences in environment across Nubia, various strategies for raising livestock have been proposed for the Meroitic population. The Butana grasslands would have allowed for some degree of animal husbandry, but it was probably only used as a supplement to agriculture and pastoralism, rather than a staple practice (Ali Hakem 1972: 639-646; Adams 1981: 2; Bradley 1986: 25-31; K.A. Ahmed 1999: 298-299; Edwards 2004: 166). This assumption is due to the absence of camels in Napatan and Meroitic times, although they were present in small amounts during the reign of Taharqa (Welsby 1996: 155).

Although the camel is the primary animal used for animal husbandry in the Butana today, camels were not common along the Nile until the Christian period (Shinnie 1967: 159; K.A. Ahmed 1999: 299). Instead of camels, the Napatan and Meroitic people raised cattle, sheep, and goats (Adams 1977: 330; Adams 1981: 2; Edwards 2004: 165), a practice still widespread in Sudan today.

Agriculture and pastoralism were certainly elements of the local economy, but the Napatan and Meroitic states also relied heavily on commerce. Ancient Egyptian New Kingdom tomb paintings provide examples of some of the commodities given in tribute by the Nubians to the Egyptian pharaoh. The walls of the Tomb of Huy (TT40) depict representations of Nubian tribute, which includes gold in rings, bags of gold, leopard skins, cow hides, red carnelian or red jasper plates, green mineral plates, quivers and leather bow cases — appropriately included since Nubians were known as expert bowmen —, white ivory tusks, ebony, shields, furniture, a model chariot made of gold, and a golden shrine shown under a chariot (Ni. de Garis Davies and Gardiner 1926: 19, 22) (Fig. 213). In the second register, the princes of Upper Nubia and their retainers are portrayed. All of the men following the chieftains are of the Nubian type, and they carry tribute specific to Nubia such
as giraffe tails and feline skins (possibly of civet cats). Two of the retainers also hold a leash attached to a giraffe (Ni. de Garis Davies and Gardiner 1926: 23-24). Although these scenes are depicting tribute, possibly *inw*\(^{41}\) rather than commerce, they provide insight into the native Nubian products desired by outside cultures.

As evidenced by the tribute scene from the Tomb of Huy, gold mining was a lucrative facet of the economy throughout Nubian history. The richest gold deposits originate from the Eastern Desert region near Aniba and the Wadi el-Allaqi. Since 1989, the Centro Richerche sul Deserto Orientale (CeRDO) has conducted research ventures on the Eastern Desert gold mines thus far covering almost 1,000 km\(^2\) including 200 sites (Castiglioni and Castiglioni 2004: 122). During these investigations, the CeRDO team discovered the site of Deraheib, located approximately 75 km from the Red Sea. Based on the presence of Ptolemaic objects at the site, this may prove to be the town of Berenice Panchrysos described in Pliny the Elder's *Natural History*. One of the two fortresses found there resembles a classic Roman *praesidium* which would have been constructed along desert caravan routes to transport commodities (Castiglioni and Castiglioni 2004: 124).

The Kushites also participated in the raising of cattle. The large herds were used not only for dairy and meat but also for the production of leather products that included sandals, belts, quivers, bags, and harnesses (Adams 1981: 4). The southern provinces were primarily exporters of raw materials and animals and were importers of manufactured goods (Adams 1981: 7). During the Greco-Roman period in Egypt there was increased travel to Kush, partly to obtain war elephants from Meroe (Adams 1977: 331; K.A. Ahmed 1999: 305). In exchange for the elephants, the Meroitic rulers received luxury items such as silver, bronze, and glass which have been found in their tombs. The use of trade as a primary component of

\(^{41}\) For more information of the practice of *inw* throughout ancient Egyptian history, see Bleiberg 1996.
the Meroitic economy can also be seen by the placement of the Kushite sites of Meroe, Napata, and Kawa. All are located at the terminal points of the major overland desert routes: the Bayuda Road, the Meheila Road, and the Korosko Road (Adams 1981: 8). Competition for control of these routes may have led to the conflict between Kush and Aksum who each vied for dominance over the raw materials required for export upon which both empires depended (Adams 1981: 9).

War elephants and raw materials were not the only items traded with the Greco-Roman world. Some scholars have proposed that the Meroitic rulers also engaged in the trading of slaves (Adams 1976: 149; Adams 1981: 5; Connah 1987: 62; Gervers 1990: 14; Welsby 1996: 175-176; K.A. Ahmed 1999: 302-304). Adams commented that the Egyptian Pharaohs openly boasted about the number of Nubian captives they brought back from their southern campaigns, which may in actuality have been slave raids (1981: 5). The presence of black people in Ptolemaic Alexandria was not considered an unusual sight since these individuals may have been introduced into the Greco-Roman world as slaves or prisoners of war (K.A. Ahmed 1999: 302). Potential evidence for the slave trade has been linked to the presence of living rather than dead prisoners on the pylons of the Lion Temple at Naga, as well as the association of captives and elephants on the interior walls of the Lion Temple at Musawwarat es-Sufra. It is possible that the latter was designed to represent all items for export to Ptolemaic Egypt (K.A. Ahmed 1999: 303). In addition to the reliefs at Naga and Musawwarat es-Sufra a relief from Jebel Qeili also shows living prisoners, which could support this theory (Connah 1987: 62). All of these reliefs show bound prisoners — in a manner similar to representations of bound prisoners in ancient Egyptian reliefs — and they all appear alive in the depictions. Connah rightly points out that the prisoners would be worth
more alive than dead (1987: 62), thus making them a viable part of the Meroitic economic system.  

Along with war elephants, raw materials, and prisoners of war who may have been intended to serve as slaves, salt mining also became an important economic practice. The need for salt, or more specifically natron, in temple rituals may have had an impact on the location chosen for the temples. During the 1998/1999 field seasons in the Dongola Reach, Żurawski and his team discovered that the Kushite temple at Sonijat had salty deposits in the area next to the southern end of the temple (Żurawski 2000: 218). These salty deposits have been utilized by the Bedouins and poorer people of Abkur as salt is added to the bread and kisra. Locals have claimed the salt has been quarried around the temple longer than anyone could recall (Żurawski 2000: 218).

Unlike hunters and gatherers, in sedentary societies salt has to be added to the diet from other sources since the limited diet of sedentary societies does not provide the required daily amount. Salt is also needed for the preservation of perishable foods and the treatment of raw materials including cow hides (Ikram 1995: 156-167; Lucas and Harris 1999: 34; Ikram 2000: 663-668; Van Driel-Murray 2000: 302). Unfortunately, the salting and brining process can affect the meat, thus decreasing its nutrient value (Ikram 1995: 156-157). In Ptolemaic Egypt, the production and sale of salt was monopolized by the royal house (K.A. Ahmed

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42 In point of fact, slaves were traded to Egypt for linen under the terms of the baqt agreement in the Medieval period in Nubia (ca. AD 500-1500). Furthermore, during his travels to Shendi 17 April to 17 May 1822, Burckhardt commented on what he considered to be the most important element of their economy: the slave trade. He figured that each year the market sold around 5,000 slaves of which about half were carried off by Souakin merchants and an additional 1500 taken by Egyptian merchants (Burckhardt 1978: 290). Burckhardt also mentioned that there were at least 40,000 slaves in Egypt at the time of his visit, but that it was a reflection of the most moderate count (1978: 307).

43 For the use of natron in temple rituals, see: David 1973 and Eaton 2013.

44 It is uncertain whether the salty deposits at Sonijat were substantial enough to be mined, or if they were simply the result of salinization of the ground. Further excavation of the temple and its surrounding area will hopefully yield additional evidence to be found in these deposits and their use at Sonijat.
1999: 302). Strabo was the only person to comment on salt sources during the Kushite period and only to the extent of stating they quarried the mineral (Jones 1967: 145). Therefore, salt was important not only in the temple rituals but also as a tangible commodity which could explain why the temple of Sonijat was built in that particular location.

Through established trade relationships, the royal and noble tombs at Meroe had an abundance of wealth placed within them that was reminiscent of the Egyptian Old Kingdom, whereas the tombs of the non-elite class were quite poor (Adams 1981: 9). This demonstrates that the long-range trade systems benefitted the ruling class but not the masses. However, there was a different situation occurring in the northern provinces, particularly at Qasr Ibrim which is located north of Faras between the First and Second Cataracts.

A large cotton weaving industry at Qasr Ibrim developed some time in the early first century AD when the inhabitants were introduced to cotton by Meroitic people arriving from the south (Adams 2013: 67). The people of Qasr Ibrim began producing cotton items that were retained locally as well as traded to Egypt. Many scholars have argued over the origin of cotton in Egypt. A specimen of linen discovered at Karanog by Woolley and Randall-Maclver and examined in 1933 by the Research Laboratories of the British Cotton Industry Research Association at the Shirley Institute, Manchester, may have been made from a cotton similar to *Gossypium arboreum Soudanensis* (Griffith and Crowfoot 1934: 6). The cotton

45 Salt was also a prominent commodity in the West African Trans-Saharan trade route since it could be traded for both low and high quality items (Alexander 1993: 652-657; K.A. Ahmed 1999: 302). Kushite rulers may have utilized salt in the same manner as the Ja’alin chiefs described by Burckhardt in 1822 in his book *Travels in Nubia*. High concentrations of salt were located in the area of Taragma at Buweida. He mentioned that the salt-filled earth was collected by the Arabs and heaped along the side of the road. The soil would then be boiled in large earthen ware vessels to separate the salt, which would be boiled a second time in smaller vessels (Burckhardt 1978: 246). Once quarried and treated, the salt would be formed into cakes, which had the appearance of rock salt, packed in a basket, and traded around Sudan. The salt trade became a primary commodity of the Shendi trade and was under the sole control of the ruler, or *mek*, of Shendi, who had about twenty vessels with earth boiling at the time of Burckhardt’s visit (Burckhardt 1978: 246). Sennar merchants would purchase Buweida salt in large quantities and transport it to the Abyssinian border and traded it for gold and slaves.
species *Gossypium arboreum* has been noted in the drawing of a garden in the tomb of the high priest of the Aten Meryra at Amarna (Manniche 1989: 20). Of the fifty species of cotton, only four are cultivated, and only two, *Gossypium arboreum* and *Gossypium herbaceum*, are known from the Old World.\(^{46}\)

Although the oldest cotton fragments — from Ballana, Qustul, Jebel Adda, and Qasr Ibrim — have been dated to the Roman period around the first century AD, the majority of the cotton remains coincide with the height of the later Meroitic civilization in Lower Nubia, dating to around AD 200 - 330 (Gervers 1990: 14). After the collapse of this empire, a shift occurred from the use of cotton to wool, primarily camel's wool, for the production of textiles. From ca. AD 350 - 550, woolen textiles account for 93% of textiles from Ballana and Qustul, and 90% from Jebel Adda (Gervers 1990: 14). The shift from cotton to wool may have taken place due to a change in population or culture after the fall of Meroe and, subsequently, resulted in the decline of the Lower Nubian economy since their primary source of wealth depended upon the export of cotton fabrics.

The premise that cotton may have been grown in the region of Meroe and transported to Lower Nubia for production purposes is based on a stela of King Ezana (ca. 330-370) discovered at Aksum, which describes his war against the Noba and the subsequent destruction of Meroe. In lines 20-21, Ezana states that he and his men, "destroyed the statues of their houses (i.e. temples), and the treasuries of food, and the cotton trees, and cast them"

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\(^{46}\) Kew Royal Botanic Gardens: http://www.kew.org/plant-cultures/plants/cotton_plant_profile.html. The association of the linen sample from Karanog and the sample of *Gossypium arboreum* led Griffith and Crowfoot to conclude that there was a Sudanese origin for the cotton used in Egypt rather than the introduction of cotton from India to Sudan via the Red Sea trade (Griffith and Crowfoot 1934: 7). A. Lucas and J.R. Harris in *Ancient Egyptian Materials and Industries* also argue for an Indian origin of the cotton tree. They proposed that cotton was introduced to Nubia prior to the Greco-Roman period since cotton products that date to that time have been discovered at Meroe (Lucas and Harris 1999: 148). Renate Germer also suggested that cotton was introduced to Egypt from India via the Greeks and Romans (Germer 2005). Another theory is that cotton was introduced to Meroe from India via Aksum, with whom the Meroities had a trade relationship (Arkell 1961: 166; Gervers 1990: 16).
into the River Sêdâ (Nile)" (Kirwan 1937: 51). Additionally, Upper Nubia is located in the rain belt which would have provided an environment conducive to the growth of cotton. The use of the *saqia* may have allowed Lower Nubians to irrigate their lands and grow cotton in the region between Derr and Toshka at Aniba, located opposite Qasr Ibrim (Gervers 1990: 15). It is unfortunate that the lack of additional archaeological evidence, the identification of the source of cotton used at Qasr Ibrim, and whether it was imported from India or grown locally, prevents a conclusive determination.

The presence of a thriving center of production may be the reason that a greater amount of luxury goods have been found in Lower Nubian cemeteries (Adams 1981: 6; Török 2009: 411-426). Trade relations between Lower Nubia and Ptolemaic Egypt intensified during the reign of Arqamani (248-220 BC) and it appears that after contact with Ptolemaic Egypt, Lower Nubia became an economic and commercial extension of the Roman Empire, yet remained politically subservient to the Meroitic crown (Adams 1981: 10; Török 2009: 391-411).

Our knowledge of the composition of social and political class structure is largely drawn from Lower Nubian areas in the later Meroitic period. In the Meroitic language the honorific particle *-qo* denotes nobility in funerary contexts, yet there does not seem to be a non-noble equivalent particle (Millet 1981: 125; Rilly and de Voogt 2012: 13, 164-166; Pope 2014: 8). Despite this textual difference, the cemeteries do not demonstrate a strong class division but rather appear to have been clusters of small family burial grounds of varying size and status (Millet 1981: 131).

Although the archaeological evidence from Lower Nubian cemeteries does not always provide a basis for determining the social classes represented within the cemetery, the
domestic architecture may be able to supply that information. At Wadi el-Arab, there are both single and double storied dwellings that differ in size of rooms and quality of construction. Two Meroitic houses at Gaminarti have a design with a two-room unit construction surrounding a central courtyard, similar to structures found at Abu Geili and Tila Island (Adams and Nordström 1963: 26; Millet 1981: 125; Adams 1984: 272; Williams 1985: 150; Edwards 1996: 82-84). The larger of the two houses (Fig. 214) consists of twenty-one rooms, whereas the smaller one has eleven. Both houses are constructed of mud-brick with 35 cm thick walls comprised only of headers that were heavily plastered (Adams and Nordström 1963: 26). The original height of the walls would have been over 2 m based on evidence determined by the fallen walls. In both houses, there is a marked combination of one long and one short room along with a lack of communication between these pairs of rooms (Adams and Nordström 1963: 26). The larger rooms housed the fireplace and cooking pots, and the smaller rooms were used for food storage. The size, layout, and construction of these houses infer that they were built starting with a small arrangement of the room pairs, which were then expanded perhaps to accommodate the inclusion of married children of the original family unit, a common practice reflected in modern Sudan (Adams and Nordström 1963: 26). A similar pattern of house construction can be found at Karanog, located approximately 100 km north of Gaminarti.

The agricultural non-elite class may have lived in round-topped huts built of lightweight materials that would not have left a significant trace. This type of construction is well known throughout modern-day Sudan. In northern Sudan, the traditional house is built using jaloos which comprises, "earth mixed with water and moulded as a material to make walls and roofs" since it is both easily constructed and does not require foundations (Kidd 1982:
The layer of the jaloos would then be covered with a fermented mixture of earth, straw, animal dung, and water, called the zibala, which waterproofed the house. If all materials are available, a house of this construction can be built in as little as a day and a half excluding the zibala layer (Kidd 1982: 138). Although this method of construction allows for rapid building, all of these materials are perishable and would not leave a trace if demolished.

The jaloos method is not the only technique implemented. For buildings requiring a sturdier construction, brick and mortar are utilized that have distinct advantages over jaloos, which includes stronger walls, straighter lines, sharper corners, and speed of building as there is no wait time needed for drying between layers. As seen in some ancient construction, many of these buildings use the gishra technique of a mud-brick core with a burnt-brick casing and footings (Kidd 1982: 138). Sudanese houses are arranged with a decent amount of open space around them to allow for sufficient air flow. This layout also enables a house to be modified as needed by adding new rooms if the number of people living there increases, or allowing a room to gently collapse if it is no longer required (Kidd 1982: 139). Overall, the traditional modern Sudanese house is constructed in a manner that provides the family with an acceptable and flexible living environment that is easy to demolish or rebuild; however, this technique creates a serious disadvantage as well: impermanence.

The differentiation between a palace and a large-scale non-royal house can be a difficult distinction. According to Adams, the Meroitic "deluxe" house has a standardized construction of a square or rectilinear design, thick walls, and vaulted ceilings (Adams 1984: 272). He also states that there is almost always an interior dividing wall that separates the building into roughly equal halves with the potential for additional partition walls on either side of the main dividing wall (Adams 1984: 272). This would create a dwelling comprising
up to four rooms. A house of similar construction, designated AM600, was found by Kendall at the Wadi Muqaddam (2006-2007) (Figs. 215-216). AM600 has a central partition wall dividing the house into two equal halves, and features seven additional smaller dividing walls creating a total of eight rooms on each side. These rooms consist of living rooms, bedrooms, baths, kitchens, and storage closets or pantries. Staircases leading to the roof were also found (Kendall 2006-2007: 201).

In 1993, Derek Welsby reinstated surveying and excavation at Kawa. Along with the temples, Kawa also has dense assemblages of well-built mud-brick dwellings, an industrial sector with kilns, as well as large buildings that include one (F4/F5/F10) measuring approximately 86 x 56 m (Welsby 2002: 44; Welsby 2010a: 351). Located 20 m to the east of kiln F3, Welsby excavated a larger building (F1) which measures 26.9 x 15.6 m. During the 2009-2010 season, the team excavated two rooms (VIII and IX) which both contained large amounts of woven matting and many circular mats throughout the room leaning against the side walls (Welsby 2010a: 44; 2010b: 51). There were also remains of palm beams, large pottery sherds, a bucranium, and a broad copper-alloy strip that was pierced by nail holes (Welsby 2010b: 51).

Room IX is connected to Room VIII via a doorway to the eastern corridor which is evident by the remains of a wooden door frame. Among the mud-brick rubble found in Room VIII, there were pieces of mud that contained small pebbles and small fragments of stone and burnt-brick. On the flat, smoothed surface of the rubble, large oval seal impressions were found. They were possibly impressed onto a mud-blocking wall, thereby sealing the entrance to the room (Welsby 2010b: 51).
In the 2010-2011 season, Welsby and his team performed further excavation of building F1. The doorway between Rooms VII and IX showed evidence of a wooden doorframe such as those found in other doorways of Rooms VIII and IX (Welsby 2011: 54). Rooms VIII and IX, measuring 5.2 x 4.94 m and 5.2 x 4.5 m respectively, each had wooden posts which were used to support the roof. Room VI held the remains of two posts, one of which measured 30 cm in diameter and 53 cm in height (Welsby 2011: 54). As in Rooms VIII and IX, Room VI contained remains of basketry with pottery, large pieces of animal bones, and a human skeleton amongst the layers. Throughout the excavated rooms there were seal impressions discovered, none of which appear to be from door blockings (Welsby 2011: 55).

Similar to other large Meroitic buildings, ground floor rooms were used as storerooms. The presence of two staircases indicate an upper level, one in the north-east corner of the building and the other leading up from the corridor of Room VII. While no remains of the first floor exist in situ, the team recovered mud-brick with painted plaster, which had been reused in a later threshold between Rooms V and VI, suggesting the lavishness of the upper level (Welsby 2011: 55).

Meroitic "deluxe" houses would have been of sturdier construction than other houses surrounding them, that were made of the jaloos construction discussed above; however, these houses were smaller and less elaborate than the royal residences or even the priests' houses. They do, however, provide evidence of a stratified society where the residences of the lower classes depended on their proximity to the more elaborate elite houses of their patrons (Adams 1984: 273).
The palaces were an important element in the economic function of the state as evidenced by the presence of clay sealings found in the palace at Wad ban Naga and Jebel Barkal (Vrtl 2013: 61; Donadoni 1993: 107; Vincentelli 2001) and accounting ostraca found in Lower Nubia at Faras (Grzymski 1982: 171-173). The evidence from the sealings and their use in identifying and tracking commodities, compares with eastern Mediterranean and Near Eastern practices during the second millennium BC. This could indicate the adaptation of a Mediterranean system of administration by the Kushites at that time (Vincentelli 1993: 141; Edwards 1996: 26). Interestingly 80% of 1000 examples from Jebel Barkal bear an image of the god Apedemak rather than Amun, which may again indicate that the palaces, not the temples, had a central role in the administration of the provinces (Vincentelli 1994: 155-156; Edwards 1996: 26). Although archaeological and textual evidence for a centralized system of storage and redistribution of food is limited (Adams 1981: 8; Edwards 1996: 26), the logical location for collection and redistribution of food and goods would be the temple, as was the case in Egypt. Temples had large storage facilities that would have enabled them to house a surplus for redistribution, but there is more evidence that the palaces served as such centers.

Although mostly devoid of artifacts that would shed light on the specific economic function of the various palaces, the presence of large storage areas within the palaces discussed in Chapter 4 further suggests that these buildings were also centers for administration and redistribution. The contents of the storerooms in the palace at Wad ban Naga provided information about the role of the palace in the economy. There were imported objects, mostly from central Africa, such as elephant tusks and ebony planks (Vercoutter 1962: 280), which would have been used as currency for trade (Fig. 217). Goods from the
Mediterranean area, such as a terracotta lamp with the image of a gladiator on it, metal vessels, and amphorae were imported for use by the palace (Vercoutter 1962: 285, 288, 293), or as gifts for the elites (Fig. 218) (Vrtal 2013: 61).

Utilitarian items, such as storage jars and Meroitic fineware pottery, were discovered in the storage areas of the palace. Objects of a religious nature were also found in the palace at Wad ban Naga that included various faience pieces, such as ankhs and djed-signs, cartouches, and feather crowns (Vercoutter 1962: 290; Sackho-Autissier 2011: passim), terracotta lion and falcon statuettes, an unfinished statue of Sebiumeker, and an altar (Vercoutter 1962: 285-287). Since so many of these artifacts were found in storage areas within the building, it is probable that the palace was distributing these objects rather than storing them for use within the palace.

II. Concluding Remarks

The Napatan and Meroitic palaces were significant buildings within the Kushite landscape and were integral in the socioeconomic system of the country. Nubia, during the Napatan and Meroitic times, was divided between Lower and Upper Nubia. In Lower Nubia, the annual inundation was stable. The population could participate in intensive agricultural practices and tight administrative control was enforceable (Pope 2014: 284-285). One theory for the administration of Lower Nubia during the Napatan period is the role of temples, which served to be the centers of administration, jurisdiction, and redistribution. This could explain Taharqa's construction of temples throughout Lower Nubia (Török 1997a: 250; Pope 2014: 154-155). Taharqa may also have utilized the fortresses at Dorginarti and Jebel es-
Sahaba, as well as other military fortifications, to maintain control of the desert nomads and the region's inhabitants (Török 2009: 344-345; Pope 2014: 154-155).

Another potential factor in the Meroitic north being economically separated from the south is the degree of political decentralization which may reflect the Greco-Roman, instead of the Egyptian or Kushite, ideas of government (Adams 1981: 10; Török 2009: 391-411). In Meroitic Lower Nubia, there was almost a complete absence of royal activity as evidenced by the lack of monumental building projects and the hereditary nature of high governmental offices, which enabled the Lower Nubian inhabitants to exist with a minimum of royal interference or interest. This could be the reason why there are fewer remains of palatial structures as there was no necessity for a strong governmental presence.

In Upper Nubia there were dispersed agricultural settlements and pastoral nomadism, leading to less direct state control of the population and their property (Pope 2014: 284). The constant movement of the population in search of resources created a region that was certainly more difficult to govern. Therefore, the kings and queens constructed more palaces between the Third and Sixth Cataracts because they had to travel the country in order to make their presence known and maintain control over the population and that would reinforce their power and position.
Chapter 7: Discussions, Analysis, and Conclusions

The problems surrounding the study of Napatan and Meroitic architecture have been addressed by many scholars. Adams (1984) provided an overview, and subsequent typology, of the various types of architectural monuments as well as the building materials used in their construction. One of the problems he encountered was the lack of thorough, or sometimes any, excavation of many of the sites mentioned. With continued and new excavations at sites since 1984, many of these problems have been remedied. However, one of the issues discussed, which current and future archaeologists will always face, is the degradation of the buildings especially since their primary building materials were mud- and burnt-brick.

Despite the number of palaces at Meroe that have been built and rebuilt on top of each other throughout the occupation of the site, Adams believes that no more than two of the palaces were ever in use at the same time (Adams 1984: 262). The use of more than one palace simultaneously at a single site is encountered during other periods, particularly in Egypt. For example, at Malqata the King's Palace and the Queen's Palace were both in use during the reign of Amenhotep III, and at Amarna the Great Palace, King's House, North Palace, and North Riverside Palace were all used during the reign of Akhenaten.

Furthermore, the rebuilding of palaces over existing ones was also done at Medinet Habu. Ramesses III restructured the arrangement of the building through raising the roof line and expanding some of the rooms.

Scholars have attempted to reconstruct the various identified palaces in order to compare them based on size, shape, plan, room function, and construction technique(s). The palaces discovered thus far have been compared most frequently to the one at Wad ban Naga as well as those at Jebel Barkal (B100, 1200, 1500), both dating to the Meroitic period. If in
fact there is a correlation between all or most of the structures identified as palaces, then their function can potentially be established. In an attempt to clarify whether the buildings denoted as palaces were actually royal residences, the structures discussed in Chapter 4 will be revisited here using the parameters for identifying Egyptian palaces outlined in Chapter 1:

1. Placement within the site and in relation to surrounding buildings.
2. Size of the building.
3. Building materials (e.g. mud-brick, stone, etc.).
4. Room configuration within the building.
5. Control of access to the king.
6. Decorative program within the building indicating a royal function (e.g. bound captives, processions, etc.).
7. Material culture, when available, within and around the building.
8. The presence of a Window of Appearance, especially in buildings associated with temples (Table 4).

After categorizing the Nubian palaces within the Egyptian context there are some similarities, yet striking differences can also be observed. As with the Egyptian New Kingdom corpus, all of the structures, with the exception of those identified at Naga, are substantial in size measuring at least 20 m per side. Whether or not they are built on a platform cannot be determined for all of the buildings based on the remaining archaeological evidence. The building materials are consistent with those used in Egypt with the inclusion of burnt-bricks as well as mud-bricks. The room configurations are primarily semi-axial to non-axial in arrangement, thereby possessing a high degree of control of access.

The noticeable differences between the Egyptian New Kingdom palaces and the Napatan and Meroitic palaces include placement, decorative program, material culture, and a Window of Appearance. At New Kingdom royal cities, the palace is the central element of the site whereas in Nubia, the temple is placed at the center with the palace in association with it. The decorative programs in the Nubian palaces are limited. They consist either of
architectural elements attached to the walls such as the medallions found at B1500. Unlike the Egyptian corpus, the Nubian examples do not have a painted decorative program as at Tell el-Dab'a, Malqata, and Amarna. This does not mean that there were never painted walls, but instead that the archaeological evidence does not support that conclusion. Material culture remains are also sparse. While some pottery, columns, faunal remains, and faience and gold objects have been found, the amount of artifacts does not aid in the identification of the buildings with the exception of occasional dating. Finally, none of the Nubian palaces have a Window of Appearance even when they are incorporated into the religious landscape, such as the Great Enclosure at Musawwarat es-Sufra.

The archaeological record for the Napatan and Meroitic periods is simultaneously informative and elusive partly because the primary building locations chosen by the Nubians were in the Butana, the rainiest region in Sudan, thereby causing damage or loss to many of the buildings which were constructed of perishable materials such as mud- and burnt-brick and Nubian sandstone. Despite these challenges, my aim will be to provide a new interpretation of the buildings listed as palaces dating from the Napatan and Meroitic periods:

1. The presence of storerooms which were entered by ladders from the ground level.
2. Casemate foundations which were used to reinforce the buildings to allow for vertical expansion.
3. Staircases or ramps, which were used to access a second storey.
4. The public areas, such as the throne room and audience halls, being on the lower level.
5. The private dwelling areas of the royal family being on the upper level.
6. Evidence of on-going domestic use, such as kitchen areas.
7. No enclosure wall needed to create unity between the palatial structures.
8. Being located in proximity to the religious sectors; however, not directly connected to the temples themselves (Table 5).

The following section will analyze each building in order to determine their viability as a palace.
I. Napatan Palaces

I.A. Jebel Barkal: B1200

Palace B1200 is the only Nubian building designated as a palace to have a rectangular instead of a square-shaped plan. The phases of occupation span from Dynasty 25 to the reign of Piye through the early Meroitic period to the reign of Amanislo. The presence of a kitchen area, staircases leading to a second storey with residential quarters, and the building's proximity to the Amun temple B500 all convincingly indicate that B1200 was a royal residence that was in use for almost the entirety of the Kushite period.

I.B. Dongola Reach: Sonijat and Usli

Preliminary reports including surveys, geomagnetic information, and small-scale excavations from Sonijat and Usli indicate the presence of a large-scale, secular building. Additionally, inscriptive evidence also suggests the existence of palatial buildings at Sonijat and Usli. An inscription of Irike-Amannote from Temple T at Kawa mentions a palace at the city of Trgb, which Żurawski has suggested is the modern site Tergis, mentioned on the stela of Psamtik II from Tanis, and may be in the region of Sonijat. The Annals of Harsiyotef also mention a palace that may be in the location of present-day Usli. If this inscriptive evidence proves to be true, then excavations in the coming years, at all the Dongola Reach sites, could possibly provide the necessary information to identify and explain the building discovered.
I.C. Kawa

Kawa was undoubtedly a central site for coronation and worship at the Amun temple, as evidenced by the large Amun temple constructed by Taharqa as well as multiple inscriptions detailing the offerings to Amun and festivals performed within the temple. An associated palace has yet to be identified despite one being attested in the Inscription of Irike-Amannote. The building at Kawa labeled by Macadam as the "Eastern Palace" continues to be referred to as such; however, many scholars at this point have agreed that due to the design and location of the building, it is not a royal residence. Griffith might have designated this building as a palace due to its proximity to the main temple area also because of the mention of a pr nswt three times in The Inscription of Irike-Amannote from years 1-2 in the hypostyle hall of Temple T (Kawa IX) (Macadam 1949: 65; Macadam 1955: 115; Eide et al. 1996: 415, 416, 417). This so-called "Eastern Palace" appears to be a temple or kiosk, possibly dedicated to a lion god (Apedemak?) as suggested by the small red sandstone recumbent lions that flanked the structure's facade.

II. Meroitic Palaces

II.A. Kerma/Doukki Gel

Remains from this site specify a building that measures approximately 41 x 30 m. Although the building demonstrates some different architectural features, such as a "light well" and a circular mud-brick structure at the southern side of the building, these features were found in other similarly dated houses at Kerma. This building does have traditional features as well, such as thick walls, vaulted corridors, and the remains of a staircase implying a second storey and storerooms that would have been accessed from the upper
level. Despite some of the differing architectural elements, this building is probably a palace that embraces some of the new architectural designs as well as maintaining some of the traditional styles of Kerma architecture.

**II.B. Jebel Barkal: B100**

The later building B100 is located near B1200 at a right angle to the main Amun temple B500, yet is smaller in size, measuring 33.2 m x 37.1 m. It contains all the characteristic elements of a palace including storage areas on the lowest level, a second storey, and a place of importance in relation to B500. The building was only preliminarily excavated and published, making a concrete conclusion regarding its function difficult. Kendall does propose that B100 is a later Meroitic palace, possibly used as a temple palace where the king would be prepared for rituals (Kendall 2014: 70). However, the size of the building does not indicate B100 was a royal residence, but was perhaps a priests' house for those maintaining B500 or B800.

**II.C. Musawwarat es-Sufra: The Great Enclosure**

As discussed in Chapter 4, the rooms and corridors of Complexes 200 and 500 within the Great Enclosure would have been used to prepare the king for his cultic duties in the temple. It would not have served as a permanent residence for the royal family. Given that there were no baths or toilets in this portion of the building, these rooms and corridors may have had a similar function to the First and Second palaces of Ramesses III at Medinet Habu, which is clearly in the category of a temple palace, meaning the building would only be used
to accommodate the king and royal family while they performed their duties at feasts and festivals rather than for an extended period of time. If the Great Enclosure served as a temple rather than residential palace, in the same manner as those from New Kingdom Egypt, then it would be the sole example of this type of building from Meroitic Nubia. The anomalous nature of the Great Enclosure has been discussed by numerous scholars; therefore, the lack of parallels in Meroitic architecture may indicate that this building may well have functioned as a temple palace.

**II.D. Meroe: M923**

The Royal City at Meroe contains at least 10 buildings that have been classified as palatial structures. The buildings include M923, M950, M995, M996, M998, M251-253, M255, M294, M295, and M750. The M900 series buildings are all located in the northern portion of the Royal Enclosure. M923 was classified as a palace by Hinkel and Sievertsen who stated that the building was representative of secular architecture with an indeterminate function, but its size, wall thickness, room design, and staircase could indicate a palace (2002: 127). However, M923 had some elements not traditionally found in palace architecture. There was a basin that may have been used to collect water from the Inundation and stored inside the building, as seen in houses dated to Hellenistic and Roman Egypt (Török 1997b: 198). In addition to the basin, the team discovered vessels buried along the northern wall of the courtyard. These vessels contained remains of burnt bone and ashes (Garstang 1914: 14). A similar arrangement of vessels with bones and ashes was also discovered in Temple M250 and houses M916, 996, 998 (Török 1997b: 198). These burnt
bones were probably the remains of sacrificial animals consumed by the local priests, thus indicating M923 was probably not a palace but possibly a priests' house instead.

II.E. Meroe: M950

Building M950, one of the larger structures in the northern portion of the Royal Enclosure measuring 38 x 28 m after the second construction period, has been classified by Hinkel and Sievertsen as a large-scale building of indeterminate function (2002: 128, 130). However, it was identified by Török as a building with a cultic function (1997b: 212). He based his conclusion on the presence of potential water storage areas in rooms M954 and 954a as well as some of the finds from M959 such as column capitals with the ram-headed sun-disc crowned Amun and faience figures of Amun, an eye of Osiris, and a lion (Török 1997b: 214). The artifacts found within the building, as well as the potential water storage rooms, indicates that this building seems to have had a religious, rather than secular, function.

II.F. Meroe: M995, M996, M998

M995, M996, and M998 all had a similar design, plan, and were oriented in the same manner. All three buildings were constructed from re-used walls of Early Meroitic edifices. Hinkel and Sievertsen described the buildings as representatives of standard secular architecture with uncertain function, but it has also been suggested that they were treasuries or depots (Hinkel and Sievertsen 2002: 134, 137, 142; Sievertsen 2013: 268-269). Although this description may be correct since M998 had rooms on the lower level without doorways,
there were elements to the buildings that would suggest they were used as residences and not simply storerooms or treasuries. M995 had the remains of a staircase which indicates an upper level, and the northern portion of the building had barrel vaults covering the rooms. M996 had openings in the southern outer wall which may have been windows, and the building had a southern courtyard with corridors on two of the sides. M998 also had a courtyard and corridors with an overall symmetrical layout. What is particularly interesting is the presence of vessels in M996 and M998 that contained ashes and burnt bones and were buried into the floor in an inverted position. The ashes and burnt bones may have been the remains of animal offerings made to the temple and later consumed by the priesthood. If this is the case, then it is probable that M995, M996, and M998 were priests' houses and not royal residences.

**II.G. Karanog**

The so-called "castle" of Karanog (KAR 1000) was a three-storied building constructed of mud-brick. There were small, high windows used for visibility and defense. A total of 22 rooms were identified with 21 of them excavated by Woolley and his team during their 1907-1910 field seasons. Although denoted as a "castle", KAR 1000 would more likely have served as the residence for the local peshtos, or governor (O'Connor 1993: 100). This structure was possibly utilized for multiple generations of governors of Karanog.

As with the royal residences located in Upper Nubia, KAR 1000 had its public areas in the lower levels of the building and the private areas in the upper stories. It was constructed around a central courtyard, which served as the light well for the castle. The
domestic areas including kitchens, food preparation areas, and storage rooms were concentrated in the southern portion of the building.

The importance of Karanog is documented in the elite and non-elite houses at the sites as well as in the cemetery. The governors had pyramids constructed to emphasize their status and wealth (O'Connor 1993: 99). However, the priests and families of the peshtos were also permitted to build pyramids for their tombs, though smaller in size and luxury (O'Connor 1993: 99). Although not a seat for the royal family itself, Karanog was the location of elite provincial nobility who may have been related to the rulers in the south.

II.H. Meroe: M294 and M295

M294 has been identified as a palace because of its size, measuring 55 x 55 m, and its square-shaped plan. The rubbish pit discovered at the northern side of the building, which contained many faience objects that would have been presented to Amun at the New Year, in addition to inscribed rings bearing the names of pharaohs upon them may indicate this was a New Year's Hall, much like the one built by Aspelta in B1200. However, the faience objects were accompanied by temple furniture and other items of religious significance. Therefore, the rubbish pit may have functioned as a cachette for discarded temple items, rather than a component of items for a New Year's Hall within a palace. There were also objects found under the foundation of an existing wall that may have been part of a foundation deposit. Due to its apparently similar size and plan to WBN100 and B1500, Hinkel and Sievertsen conclude that M294 is a royal palace (2002: 114). Its size seems to be the only criteria that would suggest the classification of M294 as a royal residence. However, the artifacts found
within the building may also mean that it could have functioned in relation to the Amun
temple M260. In any case, M294 should not be understood as a palace.

M295 has also been classified as a palace due to its size, measuring 52 m x 52 m, and
square-shaped plan. The proximity to the Royal Bath has been one piece of evidence used to
suggest M295 was a royal residence. The building has been dated to the Late Meroitic period
(late 1st - early 2nd centuries AD) based on the fact that the western section of the palace
wall was reused as the foundation for the second building phase of the Royal Bath. Again
Hinkel and Sievertsen identify this building as a royal residence due to its similarities with
WBN100 and B1500 (2002: 118). Török also compared the layout of the rooms to the central
portion of B1200 (1997b: 162). The presence of a water tank does indicate a cultic
significance similar to M923 and M950. The statues discovered within the building are
similar to those found within the Royal Bath. Some of the faience fragments, such as a
libation table, star, and crescent, may indicate a religious function as well. M295 does appear
to have been a building of significance, perhaps serving as the residence of the king's mother
and queen (Sievertsen 2013: 263).

All of the buildings from Meroe mentioned above are located within the Enclosure
Wall, which is one of the defining characteristics of this city. The Enclosure Wall surrounds
the Royal City, thereby separating the buildings within the Enclosure Wall from the Amun
temple M260. It was traced and excavated by Garstang, and was discovered to have a
trapezoidal shape (Garstang and Sayce1912: 48; Török 1997b: 41). Four gateways were
identified over the course of the following seasons, the first in the eastern and western parts
of the northern wall, the center of the eastern wall, and the southern wall near the
southeastern corner (Török 1997b: 41).
Although the Enclosure Wall surrounded the Royal City, it was constructed at a later date than the buildings within the Royal City. This is presumed because the threshold of the gate, located at the eastern portion of the northern wall, was placed considerably higher in the wall and the western portion of the wall beside the gate had been modified (Garstang and George 1914: 9). The wall was constructed out of sandstone blocks of varying sizes, and had no mortar or binding materials to hold the blocks together. According to Török, this type of masonry is reminiscent of Hellenistic walls built as fortifications (1997b: 42). The wall has been dated to the mid- or late-3rd century to mid-2nd century BC due to the foundation of the Enclosure being ca. 2m below the surface, yet higher than the cachette from M294 which was 4m below the surface (Garstang and Sayce 1912: 49; Török 1997b: 43).

In antiquity the western wall presumably fronted the Nile (Garstang and Sayce 1912: 49), which would have been closer to the city than it is at present. Despite the Enclosure Wall being constructed in a manner similar to Hellenistic fortifications, it was probably not built as a fortress. The city of Meroe was established in an area originally comprised of alluvial islands that would have been susceptible to flooding and erosion. The Enclosure Wall would have been built in order to prevent further destruction of the city (Bradley 1982: 168). Given the continued threat of flooding and the damage it imparted, the wall exhibits signs of maintenance evidenced by the presence of re-used blocks within the wall (Török 1997b: 46). As the area within the Enclosure Wall was eventually ruined, the palace (M750) was moved outside of the Royal City, away from the threat of flooding.
II.I. Meroe: M251-253 and M255

Buildings M251-253 and M255, located on the southern side of the so-called Sun Temple M250, have not been extensively excavated despite their classification as palaces. Both buildings are square in shape. The location of the buildings in proximity to M250, as well as their simplistic room arrangements, indicates these structures were either temple palaces for the king, but more likely were residences for the priests tending to the temple. A theory also postulated by Garstang.

II.J. Meroe: M750

Palace M750 has a different plan from the rest of the proposed palatial buildings at Meroe. The building has a rectilinear rather than a square plan, and has been cited as measuring ca. 80 x 48 m in its entirety. With further examination of the scaled plan published by Garstang (1912: pl. X) and republished by Török (1997b: fig. 29), the total length of M750 is 77.7 m with the width ranging from 26.7 m to 33.6 m. It has been suggested by Török (1997b) as well as Hinkel and Sievertsen (2002) that M750 was divided into two sections. Both are in agreement that the southern section was the royal residence, but postulated different functions for the northern section. Török believed it served as the administrative sector (1997b: 182) whereas Hinkel and Sievertsen suggested it was a religious element due to the presence of the pylons. They did not propose that the religious section would have been devoted to Amun given the placement of M750 on the right side of the Amun Temple M260. Instead, they postulated that the religious area would have been devoted to Apedemak (Hinkel and Sievertsen 2002: 124). This new assessment is supported by the Meroitic kings' devotion to the gods Apedemak and Amun. Regardless of the deity to
whom the religious sector of M750 was devoted, there is no reason to doubt that the southern portion of M750 was a royal residence of the Late Meroitic period.

II.K. Musawwarat es-Sufra: The Small Enclosure

In contrast to the Great Enclosure, the Small Enclosure at Musawwarat es-Sufra may have had a more domestic nature exhibited by kitchen and storage areas. It is possible that the Small Enclosure served as the living quarters for the priests servicing the Great Enclosure (Wenig 2001: 74; Edwards 2004:153). Large baked clay storage jars or cooking vessels were found with ashy contents which supports the assignment of some rooms as kitchen areas for the building. Although probably not a palace for the royal family, it is possible that when they were visiting the site for festivals, the king, queen, and their entourage would have used the Small Enclosure as their temporary residence.

II.L. Muweis

The structure discovered by Baud and his team at Muweis is a large-scale building measuring at least 51 m x 40 m. During the excavations, the team found braziers made from broken pots that were placed in an inverted position into the floor along with circular silos, sunken mud containers and storage jars. They also found a 10 cm thick layer of sheep and cattle bones, that might indicate these rooms were the kitchen areas for the building. The lowest level rooms consist of long corridors and elongated chambers reminiscent of WBN100. These rooms may have served as casemate foundations and storage areas for the upper level. Given the size of the building, the similarities to WBN100, B1500, and the
secular sector of M750, the building at Muweis is surely a palace, which dates to the early 1st century AD.

II. M. Wad ban Naga

The Palace of Queen Amanishakheto is a large building, that measures 61 m x 61 m, and is square in shape. The remains of ramps, staircases, and composite column capitals indicate the presence of a second storey. The royal apartments would have been located on the upper level while the administrative areas would have been on the lower level. Additionally, the large quantity of storerooms would suggest WBN 100 as a building that needed to provide for a sizable staff, palace workshops, and the royal family. The presence of luxury and royal artifacts discovered within the building also agrees with the building's classification as being that of a royal residence. The decorated silver ring is significant since silver found there was a precious metal imported by Meroitic rulers from the Greco-Roman world. A cartouche bearing the queen's name and found within the palace not only enabled archaeologists to attribute the building to her reign but also led to the suggestion that the building was constructed for her rather than a non-royal.

As in B1200, Onderka and his team found ram-headed, lotus and floral column capitals in WBN 154 (Vercoutter room A) on the southern side of the building. This room leads into WBN 155 and 156 (Vercoutter rooms B and C) which have been designated as an anteroom and sanctuary respectively. These three rooms may have had a similar function as the "New Year's Hall of Aspelta" in B1200, because there were similar column capitals found in the latter. Although no wall reliefs have been located in WBN100, some may have
existed when the building was in use. For these reasons, WBN100 should retain its classification as a royal palace.

II.N. Jebel Barkal: B1500

B1500 is a large-scale, square-shaped building measuring 63 x 63 m with foundations resting atop a platform. There are remains of staircases which indicate a second storey. An ashy layer that was found on the lower level, which archaeologists at first thought was a kitchen but later investigation revealed the ashy layer actually originated from the upper level. Even though the building is located on the left side of the main Amun temple, both buildings are aligned with each other, probably by means of a ceremonial way. The location of the building may have simply been out of necessity since B1200 was presumably still standing at the time of the construction of B1500. As with B1200, there is strong evidence that this building was a royal residence.

II.O. El-Hassa/Damboya

Based on the size of the building, 40 m per side, the square-shaped plan, and the use of mud and burnt-brick with stone architectural details, the building excavated at Damboya has been labeled a palace by the excavators. The structure can be compared to WBN100 and B1500 which, if accurate, would indicate a palatial building. However, additional excavation needs to be conducted before this building can be conclusively identified as a royal residence.
II.P. Dongola Reach: Selib

As at Sonijat and Usli in the Dongola Reach, only preliminary reports that include surveys, geomagnetic information, and small-scale excavations have been conducted at Selib. So far no textual material has been located thereby preventing the analysis and dating of the building discovered. Additional excavation will have to be done before any concrete conclusions about Selib can be made.

II.Q. Jebel Barkal: B2400

As in the case of B1500, B2400 is located on the left side of B500 but is built on ground level as opposed to a platform and is smaller, measuring 40 x 40 m, a dimension that is almost identical in measurement to B100. There may have been a peristyle court that would have differentiated this building from B100, but it does also contain the remains of a staircase indicating a second storey. Excavation has recently been completed on B2400 and it appears that this building may have functioned in the same capacity as B100. Given its smaller size and lack of casemate foundations, B2400 was probably also a priests' house for maintaining B500 or B800.

II.R. Faras

The building found at Faras measures 36 x 38 m and featured a pillared courtyard surrounded by small rectangular chambers. There were remains of a staircase and a window grille, which point to the presence of a second storey. Debate about the function of the building has occurred among scholars. The Western Palace has been classified as being either
a palace or a house, a market place or storerooms, a caravanserai or trade station, or it could have started as a palace that was transformed into a caravanserai or trade station (Adams 1976: 26, note 5; Adams 1984: 268; Godlewski 1972: 191; Griffith 1926: 21-23; Grzymski 1982: 171-173; Trigger 1976: 112; Sievertsen 2013: 269).

As discussed in Chapter 6, Lower Nubia had a certain level of autonomy from the rest of the Meroitic state. There were people who served as a governing body and may have had distant familial connections with the royal line at Meroe (Millet 1981: 139). Given the prominence of Faras within Lower Nubia, the Western Palace probably functioned as not only a residence, but an administrative center as well. Unlike its counterparts in Upper Nubia, which had storerooms on the lower level and the residence on the upper, the Western Palace had storerooms surrounding the residence which were all located on the same level. The combination of both elements of the building at the first storey could have allowed a transition of the building from a formal residence or a trade station after the decline of Faras, as suggested by Godlewski.

The importance of the site is also evident in the Meroitic cemeteries at Faras. Tombs for the governors were discovered indicating that the governors were being buried near their administrative center. These tombs contained amphorae of type XLVIIIab which were also present within the Western Palace; therefore, it is very possible that the palace, and the western channel, were constructed by the governors at Faras (Godlewski 1972: 191). By all accounts, Faras was the early seat of a princely family and the Western Palace was probably their version of a royal residence for the provincial governor, not a residence utilized by the rulers at Meroe.
III. Palaces of Uncertain Date

III.A. Naga

The buildings discovered during Knudstad and Frey's first and second city surveys at Naga were only preliminarily examined and have yet to be fully excavated. Based on the data provided from their initial survey, which included Buildings 1100, 3600, and 3800, Building 3800 does not appear to be of a palatial nature. It measures only 12 x 41 m and is composed of 21 rooms arranged in three interconnected rows. This suggests that Building 3800 was probably a series of storerooms for the temple and not a palace. Buildings 1100 and 3600 could potentially be royal residences as they are both large, square-shaped buildings. Building 1100 measures 28 x 28 m and Building 3600 measures ca. 35 x 36 m. Both buildings also display a central court with surrounding rooms.

During the second city survey, Knudstad and Frey examined an additional nine buildings excluding two temples which they also investigated. Buildings 1300, 1400, and 2000 were also all large, mostly square-shaped buildings, Building 1300 measures 38 x 37 m, Building 1400 measures 33.5 x 33 m, and Building 2000 measures 33 x 29.5 m. Building 1300 also had the remains of a staircase in the northeast section as well as thicker lower walls, all indicating the presence of a second storey. As with Buildings 1100 and 3600, Building 1400 had a central courtyard with rooms surrounding it. Buildings 1700 and 1800, measuring 31 x 24.5 m and 25 x 38 m respectively, may also be residences. Although they do not have a square plan there are 20 rooms in Building 1700 and 24 rooms and corridors as well as a staircase possibly leading to a second storey in Building 1800. Excavation of these buildings could reveal a square structure, or they may turn out to be rectangular in shape as seen with palaces B1200 and M750.
Of the additional buildings Knudstad and Frey examined in their second survey, Building 1900, measuring 97.5 x 54 m and having 43 rooms which may be divided into three separated buildings, might be an administrative center or priestly quarters rather than a royal residence. Building 2200, measuring 23 x 28.5 m, had 21 interconnected rooms which also may have been divided into four separate suites. As with Building 1900, Building 2200 was probably an administrative center or priestly residence associated with Temple 600. Building 2100, which measures 15 x 14 m, had two seated lions flanking the eastern entrance and a third lion near the southeast corner. This building was probably a shrine or small temple, not a residence. Building 2400, measuring 22 x 16 m, had 8 rooms with column drums found in one of them. The size of this building along with the quantity of rooms suggests it was not a royal residence. Excavation of all of these buildings is necessary in order to provide additional information needed to determine the types and functions of the structures present.

IV. Conclusions

Although the parameters for classifying a Kushite palace have been previously postulated, their relationship to all of the buildings identified as palaces has never been made. Furthermore, the use of the overarching term "Kushite" has clouded the proper differentiation between the buildings constructed during the Napatan period from those built during the Meroitic period.

The New Kingdom Nubian towns at Sai Island, Sesebi, and Amara West have domestic buildings that exemplify the transmission of Egyptian architectural traditions to Nubia as they are reminiscent of Amarna period houses (see Chapter 2). The incorporation of Egyptian traditions continued throughout the Napatan and Meroitic periods in the
construction of Egyptian-style temples dedicated to Amun. Archaeological remains of palatial architecture dating to the Napatan period remains sparse, with the best example being B1200 from Jebel Barkal. This palace has a rectangular plan, yet Kendall has suggested that it may have developed into a square plan during the course of its occupation (personal communication, 2010). If this is the case, then the non-axial arrangement of the palaces began during the Napatan period and, given the influence of Amarna architecture at Sai Island, Sesebi, and Amara West, may have also been influenced by Amarna period architecture such as the King's House.

Throughout the Meroitic period, the architectural layout of palatial buildings appears to have become standardized. The buildings are square in plan, have entrances at all sides, are accessed via a ramp or staircase, have evidence for two or more stories, and have a non-axial arrangement. This consistency may be due to Ptolemaic and Roman influence such as at the "Redoubt" Palace (see Chapter 3). Another factor might be the connection between Nubia and the Aksumite Empire. Although excavation accounts of palatial buildings dating to the Aksumite Empire are limited, the later buildings at Dungur and Matara do have similar architectural arrangements including the square shape, construction of the buildings atop a podium, and the presence of upper stories. Therefore, in my opinion, this architectural design is not Nubian in origin but rather a product of contact with the Mediterranean World and/or the Aksumite Empire.

The relationship between the Amun temple and the royal residence maintained order and enabled the palace to play a role in the concept of the cosmos. The palaces were oriented in the same manner to the processional avenue of the associated Amun temple since the king's movement in divine processions could be either toward the temple or the palace.
Although not all of the palaces associated with the Amun temple were located on the "starboard" side, such as B1500, a relationship between the temple and the palace can be observed (see Chapter 5). Even during the Kerma period the royal residence was associated with the Western Deffufa, now known to be a temple. During the Meroitic period the god Apedemak gained supremacy in the Nubian pantheon. He is represented on columns in the Great Enclosure at Musawwarat es-Sufra participating in the coronation ceremony. Despite Apedemak's increased importance during the Meroitic period and his affiliation with important ceremonies, the arrangement of the palaces does not appear to have been impacted.

As with most societies documented throughout the ancient world, the palace was at the center of the socioeconomic structure of the country. This is where goods were brought for storage and later redistribution. All of the palaces appear to have had storage areas which would have enabled them to receive products, gifts, and tribute and then housed them within or near the palace. Evidence of this practice is particularly evident at Wad ban Naga (see Chapter 6) where it is clear the palace served as a center of administration, jurisdiction, and redistribution.

Ultimately, additional excavation, or in some cases re-excavation, of these buildings will enable archaeologists to fully interpret and understand their function within the Napatan and Meroitic states. With the implementation of the criteria outlined above, the classification of large-scale domestic buildings as palaces will become more methodical.
Abbreviations

Ä&L/E&L: Ägypten und Levante/Egypt and the Levant
ANM: Archéologie du Nil Moyen: Fouilles au Soudan et en Nubie
BIFAO: Bulletin de l'Institut Français d'Archéologie Orientale
BMSAES: British Museum Studies in Ancient Egypt and Sudan
BMMA: Bulletin of the Metropolitan Museum of Art, New York
BSAE: British School of Archaeology in Egypt
CRIPEL: Cahiers de Recherches de l’Institut de Papyrologie et d’Egyptologie de Lille
EA: Egyptian Archaeology
GM: Göttinger Miszellen
JARCE: Journal of the American Research Center in Egypt
JEA: Journal of Egyptian Archaeology
JNES: Journal of Near Eastern Studies
LAAA: Liverpool Annals of Archaeology and Anthropology
MDAIK: Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo
NARCE: Newsletter of the American Research Center in Egypt
PAM: Polish Archaeology in the Mediterranean
RdE: Revue d'Égyptologie
S&N: Sudan & Nubia
SNR: Sudan Notes and Records
ZÄS: Zeitschrift für ägyptische Sprache und Altertumskunde
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Tables
<table>
<thead>
<tr>
<th>Type of Palace</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>The dwelling place for the king and/or members of the royal family for significant periods of time. Built of mud-brick with stone architectural features, which may include: enclosure wall, off-axis entrance, vestibule or series of vestibules, central hall or court, throne room, royal bedroom with a bath installation, a Window of Appearance, suites designated for female members of the royal family, and storerooms.</td>
</tr>
<tr>
<td>Temple</td>
<td>An element of a larger temple complex. Located on the south side of the main temple with axes oriented perpendicular to the main temple axis. Constructed out of both stone and mud-brick. They are most commonly attested during the late New Kingdom.</td>
</tr>
<tr>
<td>Administrative</td>
<td>Difficult to identify because it is usually incorporated into a larger building in the form of storerooms or offices. Usually arranged in blocks of long, narrow cells. Corridors provided access to the storerooms. Presumably used for the counting and recording of goods as well as to serve as offices for the administrators. More identifiable in the New Kingdom than earlier periods.</td>
</tr>
<tr>
<td>Fortress</td>
<td>These buildings were constructed at the highest point of the site atop a casemate foundation, thus making the structures more defensible. There was generally a boundary wall around the building. This type of building practice can be attested from at least the Second Intermediate Period through the Late Period.</td>
</tr>
<tr>
<td>Campaign</td>
<td>Domestic buildings typically associated with Egyptian fortresses in Nubia. Some of these types of structures have been re-classified as administrative buildings. This type of palace generally dates to the Middle Kingdom.</td>
</tr>
<tr>
<td>Heb-sed</td>
<td>Where the king would perform his heb-sed, or jubilee, festival. Similar to a temple palace, this type of structure would have served a residential, ceremonial, and administrative function. The presence of a ceremonial lake may be a feature of this type of building.</td>
</tr>
<tr>
<td>So-called &quot;Harem&quot;</td>
<td>An archaic term for a dwelling place for the women of the royal family. These women were not part of a &quot;harem&quot; in the same respect as in an Orientalist context. Instead this type of building was where wives and children, Egyptian and foreign, of the king resided. The structures may have been standardized, thus consisting of two adjacent buildings, each divided by a partition wall, with one buildings serving as the residence and the other serving as an area for food storage and production.</td>
</tr>
</tbody>
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Table 1: Definitions of types of New Kingdom Egyptian palaces
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<tr>
<th>Deir el-Ballas</th>
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<tbody>
<tr>
<td>North Palace</td>
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<tr>
<td>Placement within Site</td>
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<tr>
<td>Size of Building</td>
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<tr>
<td>Building Material(s)</td>
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<tr>
<td>Room Configuration</td>
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<tr>
<td>Control of Access</td>
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<tr>
<td>Decorative Program</td>
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<tr>
<td>Material Culture</td>
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<tr>
<td>Window of Appearance</td>
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<tr>
<td>Type of Palace</td>
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<tr>
<th>South Palace</th>
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<tr>
<td>Placement within Site</td>
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<tr>
<td>Size of Building</td>
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<tr>
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<td>Type of Palace</td>
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<tr>
<th>Tell el-Dab’a</th>
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<tr>
<td>Palace G</td>
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<tr>
<td>Placement within Site</td>
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<tr>
<td>Size of Building</td>
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<tr>
<td>Building Material(s)</td>
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<tr>
<td>Room Configuration</td>
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<td>Control of Access</td>
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<td>Material Culture</td>
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<tr>
<td>Window of Appearance</td>
</tr>
<tr>
<td>Type of Palace</td>
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</tbody>
</table>

| Palace F |
| Placement within Site | Northern portion of palatial quarter |
| Size of Building | 3, 300 m² |
| Building Material(s) | Mud-brick; painted plaster |
| Room Configuration | Non-axial |
| Control of Access | Most |
| Decorative Program | Minoan-style painted plaster frescoes |
| Material Culture | N/A |
| Window of Appearance | No |
| Type of Palace | Temple palace? Residential palace? |

| Palace J |
| Placement within Site | Southwestern portion of palatial quarter |
| Size of Building | 1, 207.5 m² |
| Building Material(s) | Mud-brick |
| Room Configuration | Semi-axial |
| Control of Access | More |
| Decorative Program | N/A |
| Material Culture | N/A |
| Window of Appearance | No |
| Type of Palace | Temple palace? |

<table>
<thead>
<tr>
<th>Malqata</th>
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</thead>
<tbody>
<tr>
<td>King’s Palace</td>
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<tr>
<td>Placement within Site</td>
</tr>
<tr>
<td>Size of Building</td>
</tr>
<tr>
<td>Building Material(s)</td>
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<tr>
<td>Room Configuration</td>
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<td>Control of Access</td>
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<td>Decorative Program</td>
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<td>Material Culture</td>
</tr>
<tr>
<td>Window of Appearance</td>
</tr>
<tr>
<td>Type of Palace</td>
</tr>
</tbody>
</table>

| South Palace |
| Placement within Site | Southern portion of palace complex |
| Size of Building | Main: 38.8 m x 72.4 m Secondary: 16.6 m x 31.6 m |
| Building Material(s) | Mud-brick |
| Room Configuration | Semi-axial |
| Control of Access | More |
| Decorative Program | N/A |
| Material Culture | Pottery; dyer’s vat; molds |
| Window of Appearance | No |
| Type of Palace | Residential palace? Administrative palace? |

| Amarna |

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<table>
<thead>
<tr>
<th>Placement within Site</th>
<th>Size of Building</th>
<th>Building Material(s)</th>
<th>Room Configuration</th>
<th>Control of Access</th>
<th>Decorative Program</th>
<th>Material Culture</th>
<th>Window of Appearance</th>
<th>Type of Palace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Palace</td>
<td>West of the Siqket es-Sultan</td>
<td>at least 440 m x 220 m</td>
<td>Mud-brick; stone; painted plaster</td>
<td>Axial/Semi-axial</td>
<td>Less - More</td>
<td>Painted plaster scenes</td>
<td>Stone statues</td>
<td>Yes</td>
</tr>
<tr>
<td>King's House</td>
<td>Connected to the Great Palace</td>
<td>ca. 94.6 m x 109.6 m</td>
<td>Mud-brick; painted plaster</td>
<td>Non-axial</td>
<td>Most</td>
<td>Painted plaster scenes</td>
<td>N/A</td>
<td>No</td>
</tr>
<tr>
<td>North Palace</td>
<td>Between North suburb and North city</td>
<td>148 m x 115 m</td>
<td>Mud-brick</td>
<td>Semi-axial</td>
<td>More</td>
<td>Inscriptions; fragments of gold leaf and paint</td>
<td>Stone details and architectural elements; molds; pottery</td>
<td>Maybe</td>
</tr>
<tr>
<td>North Riverside Palace</td>
<td>Past the northernmost boundary stela</td>
<td>at least 118.4 m x 53.5 m</td>
<td>Mud-brick; stone; painted plaster</td>
<td>Semi-axial/Non-axial</td>
<td>More - Most</td>
<td>Painted plaster scenes</td>
<td>N/A</td>
<td>Unknown</td>
</tr>
<tr>
<td>Memphis</td>
<td>East of four temple enclosures, at a right angle to the processional way of the Temple of Ptah</td>
<td>129.6 m x 45.6 m</td>
<td>Mud-brick; stone; painted plaster</td>
<td>Axial</td>
<td>Less</td>
<td>Painted plaster scenes</td>
<td>Stone architectural details; faience inlays; column bases</td>
<td>Maybe</td>
</tr>
<tr>
<td>Palace of Merenptah</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medinet el-Gurob</td>
<td>North Palace area</td>
<td>Center of settlement</td>
<td>ca. 59.6 m x 151.9 m</td>
<td>Mud-brick; stone</td>
<td>Semi-axial?</td>
<td>More - Most</td>
<td>N/A</td>
<td>No</td>
</tr>
<tr>
<td>Placement within Site</td>
<td>Size of Building</td>
<td>Building Material(s)</td>
<td>Room Configuration</td>
<td>Control of Access</td>
<td>Decorative Program</td>
<td>Material Culture</td>
<td>Window of Appearance</td>
<td>Type of Palace</td>
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<tr>
<td>South Palace area</td>
<td>Center of settlement</td>
<td>ca. 53.8 m x 146.2 m</td>
<td>Mud-brick; stone</td>
<td>Semi-axial?</td>
<td>More - Most</td>
<td>N/A</td>
<td>Stela; papyrus; pottery; faience objects; stone, agriculture and fishing implements</td>
<td>No</td>
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<tr>
<td>Temple Palaces</td>
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<tr>
<td>Ay and Horemheb</td>
<td>Between third and fourth pylons of the Mortuary Temple of Ay and Horemheb</td>
<td>21.6 m x 22 m</td>
<td>Mud-brick; whitewashed plaster</td>
<td>Axial</td>
<td>Most</td>
<td>N/A</td>
<td>N/A</td>
<td>Unknown</td>
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<tr>
<td>Seti I</td>
<td>Between the first and second pylons of the Mortuary Temple of Seti I; attached to south wall</td>
<td>37.1 m x 38.1 m</td>
<td>Mud-brick; stone</td>
<td>Axial</td>
<td>Most</td>
<td>Reliefs of foreigners on Window of Appearance</td>
<td>N/A</td>
<td>Yes</td>
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<tr>
<td>Ramesses II</td>
<td>Fronting the first court of the Ramesseum</td>
<td>ca. 63.4 m x 53.2 m</td>
<td>Mud-brick; stone</td>
<td>Axial</td>
<td>Most</td>
<td>N/A</td>
<td>N/A</td>
<td>Yes</td>
</tr>
<tr>
<td>Merenptah</td>
<td>South of the entrance courtyard of the temple</td>
<td>ca. 15.9 m x 34.2 m</td>
<td>Mud-brick; stone</td>
<td>Axial</td>
<td>Most</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Ramesses III: First Palace</td>
<td>Connected to the south wall of the Mortuary Temple</td>
<td>ca. 48.2 m x 37.9 m</td>
<td>Mud-brick; stone</td>
<td>Axial</td>
<td>Most</td>
<td>Pharaoh subduing foreigners on Window of Appearance</td>
<td>N/A</td>
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<td>Placement within Site</td>
<td>Size of Building</td>
<td>Building Material(s)</td>
<td>Room Configuration</td>
<td>Control of Access</td>
<td>Decorative Program</td>
<td>Material Culture</td>
<td>Window of Appearance</td>
<td>Type of Palace</td>
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<td>Ramesses III: Second Palace</td>
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<td>cn. 48.2 m x 37.9 m</td>
<td>Mud-brick; stone</td>
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<td>Most</td>
<td>Reliefs of foreigners on Window of Appearance</td>
<td>N/A</td>
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<td></td>
<td>Measurement in Meters</td>
<td>Measurement in Cubits (52.3 cm)</td>
<td>Module</td>
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<td>35 x 70</td>
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<td>30 x 40</td>
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<td>1.88 / 2.5</td>
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<td>M750 (north)</td>
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<td>M750 (south)</td>
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<td>65.2 x 64.2</td>
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<td>Small Enclosure</td>
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<td>83.4 x 80.5</td>
<td>2.73 / 2.63</td>
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<td>Wad Ban Naga</td>
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<td>Faras</td>
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<td>2.25 / 2.38</td>
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<td>66.9 x 68.8</td>
<td>2.19 / 2.25</td>
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<td>3800</td>
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<td>22.9 x 78.4</td>
<td>0.75 / 2.56</td>
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<td>72.7 x 70.7</td>
<td>2.38 / 2.31</td>
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<td>1400</td>
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<td>64.1 x 63.1</td>
<td>2.09 / 2.06</td>
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<td>1700</td>
<td>31 x 24.5</td>
<td>59.3 x 46.8</td>
<td>1.93 / 1.53</td>
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<td>47.8 x 72.7</td>
<td>1.56 / 2.38</td>
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<td>97.5 x 54</td>
<td>186.4 x 103.3</td>
<td>6.09 / 3.38</td>
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<td>2.06 / 1.84</td>
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<td>28.7 x 26.8</td>
<td>0.94 / 0.88</td>
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<td>44 x 54.5</td>
<td>1.44 / 1.78</td>
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<td>2400</td>
<td>22 x 16</td>
<td>42.1 x 30.6</td>
<td>1.38 / 1.0</td>
<td>16</td>
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Table 3: Measurements of Nubian palace corpus in cubits
<table>
<thead>
<tr>
<th>Placement within Site</th>
<th>Size of Building</th>
<th>Building Material(s)</th>
<th>Room Configuration</th>
<th>Control of Access</th>
<th>Decorative Program</th>
<th>Material Culture</th>
<th>Window of Appearance</th>
</tr>
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<tr>
<td>Napatan</td>
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<tr>
<td>B1200</td>
<td>&quot;Starboard&quot; side of B500</td>
<td>35 x 70</td>
<td>Mud-brick and stone</td>
<td>Non-axial</td>
<td>Most</td>
<td>Carved columns and doorjambs</td>
<td>Hearths, charcoal, animal bones, shells, date pits, ashes, bronze, stone tools, beads, copper slag, faience vessels, and potsherds</td>
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<tr>
<td>Kawa</td>
<td>West of the temenos wall of Temple T</td>
<td>25.8 x 17.1</td>
<td>Mud-brick and stone</td>
<td>Axial</td>
<td>Least</td>
<td>Whitewashed walls with polychrome painted designs</td>
<td>Sandstone lions</td>
</tr>
<tr>
<td>Meroitic</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Kerma/Doukki Gel</td>
<td>Northeast corner of site</td>
<td>41 x 30</td>
<td>Mud-brick, burnt-brick, and stone</td>
<td>Semi-axial/non-axial</td>
<td>More-Most</td>
<td>N/A</td>
<td>Ovens, ashes, grinding stones, and potsherds</td>
</tr>
<tr>
<td>B100</td>
<td>&quot;Starboard&quot; side of B500</td>
<td>33.2 x 37.1</td>
<td>Mud-brick and stone</td>
<td>Non-axial</td>
<td>Most</td>
<td>Decorated columns</td>
<td>Pottery and potsherds</td>
</tr>
<tr>
<td>Great Enclosure</td>
<td>Center of the site</td>
<td>207.4 x 207.4</td>
<td>Stone</td>
<td>Non-axial</td>
<td>Most</td>
<td>Carved columns</td>
<td>Potsherds</td>
</tr>
<tr>
<td>M923</td>
<td>North side of Royal Enclosure</td>
<td>13.4 x 24.4</td>
<td>Mud-brick and stone</td>
<td>Semi-axial</td>
<td>More</td>
<td>N/A</td>
<td>Stone basin, clay figure of Tawaret</td>
</tr>
<tr>
<td>M950</td>
<td>North side of Royal Enclosure</td>
<td>38 x 28</td>
<td>Mud-brick and burnt-brick</td>
<td>Non-axial?</td>
<td>Most?</td>
<td>N/A</td>
<td>Debris dating to 2nd century AD or earlier</td>
</tr>
<tr>
<td>M995</td>
<td>North side of Royal Enclosure</td>
<td>20.7 x 34.1</td>
<td>Mud-brick</td>
<td>Semi-axial?</td>
<td>More?</td>
<td>N/A</td>
<td>Hand-made vessel</td>
</tr>
<tr>
<td>Placement within Site</td>
<td>Size of Building</td>
<td>Building Material(s)</td>
<td>Room Configuration</td>
<td>Control of Access</td>
<td>Decorative Program</td>
<td>Material Culture</td>
<td>Window of Appearance</td>
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<td>----------------------</td>
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<tr>
<td>M996</td>
<td>North side of Royal Enclosure</td>
<td>34.1 x 30.5</td>
<td>Mud-brick, burnt-brick, and stone</td>
<td>Semi-axial</td>
<td>More</td>
<td>N/A</td>
<td>Pottery vessels</td>
</tr>
<tr>
<td>M998</td>
<td>North side of Royal Enclosure</td>
<td>35.4 x 45.1</td>
<td>Mud-brick, burnt-brick, and stone</td>
<td>Semi-axial</td>
<td>More</td>
<td>N/A</td>
<td>Pottery vessels containing ash</td>
</tr>
<tr>
<td>Karanog</td>
<td>Center of the site, north of the Nile</td>
<td>25.5 x 25.5</td>
<td>Mud-brick and stone</td>
<td>Non-axial</td>
<td>Most</td>
<td>N/A</td>
<td>Ovens, ostraca, jar sealings, and basket fragment</td>
</tr>
<tr>
<td>M294</td>
<td>South side of Royal Enclosure</td>
<td>55 x 55</td>
<td>Stone and rubble</td>
<td>Semi-axial/non-axial</td>
<td>More-Most</td>
<td>N/A</td>
<td>Stone-lined chamber, lusience, pottery, gold dust and nuggets, broken glass, beads, goldend pyramid, scarab, and golden money rings</td>
</tr>
<tr>
<td>M295</td>
<td>South side of Royal Enclosure</td>
<td>52 x 52</td>
<td>Stone and rubble</td>
<td>Semi-axial/non-axial</td>
<td>More-Most</td>
<td>N/A</td>
<td>Water basin</td>
</tr>
<tr>
<td>M251-253</td>
<td>“Starboard” side of M250</td>
<td>22 x 22</td>
<td>Mud-brick and stone</td>
<td>Non-axial</td>
<td>Most</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>M255</td>
<td>South of the hafir near M250</td>
<td>27 x 27</td>
<td>Mud-brick</td>
<td>Non-axial</td>
<td>Most</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>M750</td>
<td>“Starboard” side of M260</td>
<td>80 x 48</td>
<td>Mud-brick and stone</td>
<td>Axial (northern section)/non-axial (southern section)</td>
<td>Least (northern section) - most (southern section)</td>
<td>Decorated sandstone blocks</td>
<td>Cups, bowls, animal bones, charcoal, and potsherds</td>
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</table>
Table 4: Egyptian palace criteria applied to Nubian corpus

<table>
<thead>
<tr>
<th>Placement within Site</th>
<th>Size of Building</th>
<th>Building Material(s)</th>
<th>Room Configuration</th>
<th>Control of Access</th>
<th>Decorative Program</th>
<th>Material Culture</th>
<th>Window of Appearance</th>
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<tbody>
<tr>
<td>small Enclosure</td>
<td>43.6 x 42.1</td>
<td>Stone</td>
<td>Semi-axial/non-axial</td>
<td>More-Most</td>
<td>N/A</td>
<td>Storage jars and cooking vessels with ashy deposits</td>
<td>No</td>
</tr>
<tr>
<td>Moweis</td>
<td>49 x 51.5</td>
<td>Mud-brick, burnt-brick, and stone</td>
<td>Non-axial</td>
<td>Most</td>
<td>N/A</td>
<td>Braziers, mud containers, storage jars, animal bones, and egg-shell ware</td>
<td>No</td>
</tr>
<tr>
<td>Nad Ban Naga</td>
<td>61 x 61</td>
<td>Mud-brick, burnt-brick, and stone</td>
<td>Non-axial</td>
<td>Most</td>
<td>N/A</td>
<td>Ebony, ivory, luxury objects, terracotta, faience, and jars</td>
<td>No</td>
</tr>
<tr>
<td>31500</td>
<td>63 x 63</td>
<td>Mud-brick, burnt-brick, and stone</td>
<td>Non-axial</td>
<td>Most</td>
<td>Carved stone elements</td>
<td>Tablet, medallions, and seated lion statues</td>
<td>No</td>
</tr>
<tr>
<td>32400</td>
<td>49 x 40</td>
<td>Mud-brick, burnt-brick, and stone</td>
<td>Non-axial?</td>
<td>Most?</td>
<td>N/A</td>
<td>WINDOW grille, ostraca, pottery, seals, blown glass, flora remains, cattle droppings</td>
<td>No</td>
</tr>
<tr>
<td>jars</td>
<td>36 x 38</td>
<td>Mud-brick and stone</td>
<td>Semi-axial</td>
<td>More</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not all sites and buildings that were examined are included in this table.*
Table 5: Nubian palace criteria applied to Nubian corpus*

* Not all sites and buildings that were examined are included in this table. Traces of large-scale buildings, possibly palaces, have been found at other sites, such as those at the The Dongola Reach (Selib, Sonijat, Usli), el-Hassa/Damboya, and Naga. Furthermore, a palace is attested at Kawa in textual accounts, but the building itself has yet to be found.

<table>
<thead>
<tr>
<th>Type of Palace (if applicable)</th>
<th>Magazine/s/ storage areas</th>
<th>Casemate foundations</th>
<th>Staircases/ramps</th>
<th>Lower level: Public areas</th>
<th>Upper level: Private areas</th>
<th>On-going: domestic usage</th>
<th>Near to religious sector</th>
<th>Palace?</th>
<th>Napatan</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1200</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Yes</td>
<td>Residential</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Meroitic                      |                           |                     |                 |                          |                           |                        |                        |        |         |
| Kerma/Doukki Gel              | X                         | X                   | X               | X                        | X                         | X                      | Maybe Residential     |        |         |
| B100                          | X                         | X                   | X               | X                        | X                         | No                     | N/A                    |        |         |
| Great Enclosure               | X                         | X                   | X               | Lower level?             | X                         | Yes                    | Temple                |        |         |
| M293                          | X                         | ?                   | ?               | ?                        | X                         | No                     | N/A                    |        |         |
| M950                          | X                         | ?                   | ?               | ?                        | X                         | No                     | N/A                    |        |         |
| M995                          | X                         | ?                   | ?               | ?                        | X                         | No                     | N/A                    |        |         |
| M996                          |                           |                     |                 |                          |                           |                        |                        |        |         |
| M998                          |                           |                     |                 |                          |                           |                        |                        |        |         |
| Karanog                       | X                         | X                   | X               | X                        | X                         | ?                      | Yes                    |        |         |
| M294                          | X                         |                     |                 |                          |                           |                        |                        |        |         |
| M295                          | X                         | ?                   |                 |                          |                           |                        |                        |        |         |
| M251-253                      | X                         | X                   | ?               | ?                        | X                         | No                     | N/A                    |        |         |
| M255                          | ?                         |                     |                 |                          |                           |                        |                        |        |         |
| M750                          | X                         | X                   | X               | X                        | X                         | Yes                    | Residential            |        |         |
| Smal Enclosure                | X                         | X                   | X               | Lower level?             | X                         | X                      | Maybe Residential     |        |         |
| Muweis                        | X                         | X                   | X               | X                        | X                         | ?                      | Yes                    | Residential            |        |         |
| Wad ban Naga                  | X                         | X                   | X               | X                        | X                         | X                      | Yes                    | Residential            |        |         |
| B1500                         | X                         | X                   | X               | X                        | X                         | X                      | Yes                    | Residential            |        |         |
| B2400                         | X                         | X                   | X               | X                        | X                         | No                     | N/A                    |        |         |
| Faras                         | X                         | X                   | ?               | ?                        | X                         | ?                      | Yes                    | Administrative          |        |         |

Table 5: Nubian palace criteria applied to Nubian corpus*

* Not all sites and buildings that were examined are included in this table. Traces of large-scale buildings, possibly palaces, have been found at other sites, such as those at the The Dongola Reach (Selib, Sonijat, Usli), el-Hassa/Damboya, and Naga. Furthermore, a palace is attested at Kawa in textual accounts, but the building itself has yet to be found.
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B1500 from Gebel Barkal                                  M750 from Meroe

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Figure 201a and b: Column 8 from Hall 101 of the Great Enclosure at Musawwarat es-Sufra, a - right side, b - left side (from Török 2002: figure 27).
Figure 202a and b: Column 9 from Hall 101 of the Great Enclosure at Musawwarat es-Sufra, a - right side, b - left side (from Török 2002: figure 28).

Figure 203a and b: Column 10 from Hall 101 of the Great Enclosure at Musawwarat es-Sufra, a - right side, b - left side (from Török 2002: figure 29).
Figure 204: Menat of Taharqa showing the king being nursed by a lion-headed goddesses (Bastet? Sekhmet?), MMA 41.160.104 (from Leclant 1961, plate I).

Figure 205: Silver plaque from Tomb of Queen Nefrukekashta, Kurru 52 (MFA 24.928) (from Markowitz and Doxey 2014: plate 12).
Figure 206: Plan of B300 showing iconographic program, see number 15 (from Török 2002: plate 3).

Figure 207: Scene in the Mut Temple at Jebel Barkal showing Amun of Pnubs as a bringer of the inundation on the left (from Lepsius *Denkmaeler* Band 10, Abtheilung 5, plate 9).
Figure 208: Column from B1200 showing goddesses with $rnpt$-signs and ankhs (from Kendall 1997: figure 4).
Figure 209: Temple B300 at Jebel Barkal, room 303 (from Robisek 1989: 53, figure 1).

Figure 210: Aspelta chapel at Sanam, North wall (from Griffith 1922: plate XLV).
Figure 211: Aspelta chapel at Sanam, King before Amun (from Griffith 1922: plate XLVII, 1).

Figure 212a and b: a - Seal with name of Piye, b - Faience ring from Sanam (a - from Griffith 1922: plate LIX; b - from Lohwasser 2014: 232, figure 1b).
Figure 213: Nubian tribute scene from the Tomb of Huy (TT40) (from Ni. de Garis Davies and Gardiner 1926: plate XXIII).
Figure 214: Large house from Gaminarti (from Adams and Nordström 1963: 27, figure 4a).
Figure 215: Wadi Muqaddam, Plan of double house AM600 (from Kendall 2006-2007: 202, figure 4).

Figure 216: Wadi Muqaddam, Reconstruction of double house AM600 (from Kendall 2006-2007: 203, figure 5).
Figure 217: Ivory and ebony found in magazines at Wad ban Naga (from Vercoutter 1962: plate XXb).

Figure 218: Decorated jars found in magazines at Wad ban Naga (from Vercoutter 1962: plate XXc).