

The Geography of Excavated Predynastic Sites and the Rise of Complex Society

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Complex society evolved in Egypt in the fourth millennium B.C. as farming villages along the Nile became increasingly stratified. While sites of the culture known as the Predynastic are found throughout the Egyptian Nile valley, the greatest number of known Predynastic sites exist in Upper Egypt in three major areas (all on the west bank): those of Hierakonpolis, Nagada and Ballas, and Abydos (fig. 1). In Middle Egypt, Predynastic sites are located on the east bank around Badari, and in Lower Egypt sites exist in the Fayum region and south of Cairo. The only large Predynastic site in the Delta is on the western fringe at Merimda. With the deposition of 10 m of alluvium in the Delta during the past 6000 years,¹ other major Predynastic sites there are unknown. In Nubia above Aswan numerous A-Group sites have been excavated that also contain much Predynastic material, but the nature of Egyptian Predynastic/A-Group relations is beyond the scope of this study.

1. Upper Egypt

One of the earliest archeological surveys in southern Egypt was conducted by Henri de Morgan for the Brooklyn Museum in 1906-1907 and 1907-1908. Surveying between Gebel es-Silsila (65 km north of Aswan) and Esna, Morgan excavated seven sites with Predynastic and Early Dynastic artifacts. Thirteen other sites of the Nagada culture in this region were also reported by Morgan.² Excavating both cemetery and settle-

ment sites, Morgan did not publish this material. Although Morgan's notebooks of the excavations have been located, major shortcomings exist. In the cemetery sequences, "unimportant" graves were not listed, burial objects were not numbered, and no cemetery maps were made.³

Findings from Morgan's principal sites now in the Brooklyn Museum have been published recently by Needler. While existing records of Morgan's excavations are inadequate for more thorough analyses, Needler's publication of the identifiable material from these sites is useful in an understanding of Nagada period site distribution:

The early cemetery at El-Ma⁵mariya, which reaches back to Naqada I times, as also probably the cemetery and settlement at El-⁵Adaima, supports the view that the nuclear region of the Naqada culture extended further south than was formerly supposed, to the region of Hierakonpolis; at least, the results of Morgan's activity in the region may help to dispel a belief that Hierakonpolis was a "marginal settlement" during Naqada times, too far south to have had more than religious or frontier importance.⁴

From Needler's catalogue, a picture of extensive Predynastic occupation in southern Egypt emerges. Two Predynastic settlements were located by Morgan at El-⁵Adaima and the "Fort Wadi" at Hierakonpolis. Five cemetery areas were also excavated by Morgan, and in her catalogue Needler has associated grave goods with

¹ Karl W. Butzer, *Early Hydraulic Civilization in Egypt* (Chicago: University of Chicago, 1976), 25.

² Winitred Needler, *Predynastic and Archaic Egypt in the Brooklyn Museum* (Brooklyn: The Brooklyn Museum, 1984), 151.

³ *Ibid.*, 47.

⁴ *Ibid.*, 68.

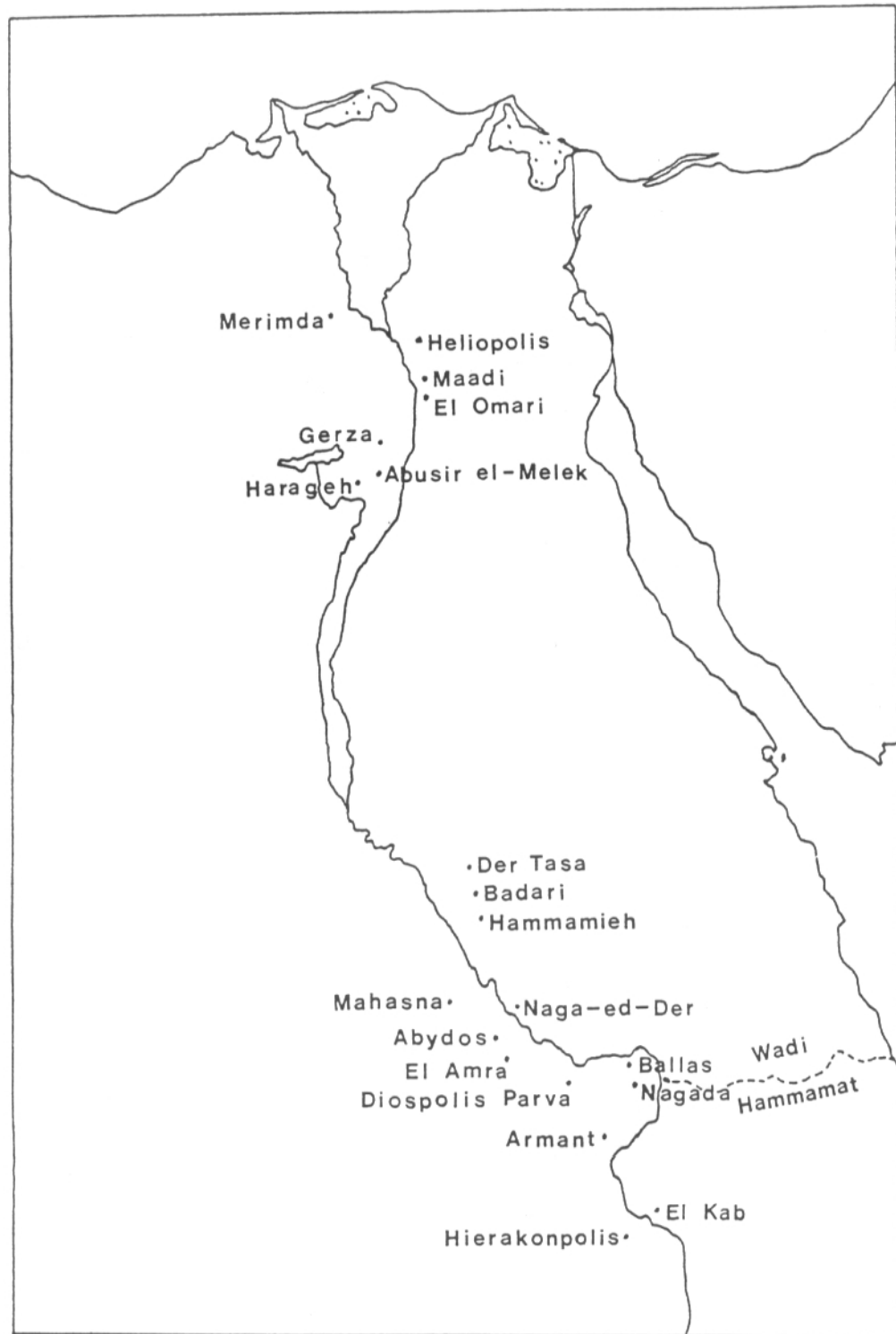


Fig. 1. Predynastic Sites in Egypt.

specific cemeteries and grave numbers when possible. These Predynastic cemeteries include 232 burials at El-Ma'mariya, 100 burials at El-Qara, 102 burials at Abu Zaidan, 91 burials at El-Masa'fid, and a large Early Dynastic cemetery at Es-Siba'iya with some Predynastic burials.

Of the seven sites that Morgan excavated in southern Egypt, Hierakonpolis is the largest. Not the first to excavate at Hierakonpolis, Morgan had been preceded there by Quibell and Green in 1897-1898 and 1898-1899, and Garstang in 1905-1906. Quibell and Green's excavations concentrated on the walled town on the Kom el-Ahmar with a walled temple precinct in the southern corner of the town.⁵ Within the temple area, Quibell found what he termed the "Main Deposit," which included the Narmer palette and macehead, and other artifacts stylistically dating to the late Predynastic and Early Dynastic periods. As only a very general stratigraphy was used to excavate the temple area, it is difficult to determine the sequence of building and the exact context of the Main Deposit.

Predynastic burials were also excavated at Hierakonpolis by Garstang and Morgan. Quibell's excavations included the "Fort," a large elaborately niched mudbrick structure of King Khasekhemwy of Dynasty 2, southwest of the Kom el-Ahmar. Within and beneath the walls of the Fort, Garstang excavated numerous Predynastic graves,⁶ which Kemp dates to Nagada II and III.⁷ Garstang's graves were not well published with itemized artifacts, or located on a map. Northeast of the Fort, Morgan also excavated a few Predynastic graves, but the artifacts from this area cannot now be associated with specific graves. According to Needler, these graves were "at the southeastern end of the large cemetery that extends from the Fort Wadi north-westward for about four hundred fifty meters and back in time, probably from Naqada III to late Naqada II."⁸

The other known Predynastic cemetery at Hierakonpolis is in the area of the Decorated Tomb, excavated by Green. Consisting of a mudbrick lined and plastered pit with painted walls and associated grave goods, the Hierakonpolis Decorated Tomb seems to date to the Nagada II period.⁹ Green's papers at Cambridge University indicate that this tomb was in a small Predynastic cemetery at Hierakonpolis from which a register of pottery types from about 150 graves has been preserved.¹⁰

More recently Hierakonpolis has been the site of extensive excavations and survey by Fairervis and Hoffman. With over 50 sites of Predynastic occupation, industry, and burial (ranging from 9 to 201,986 m²),¹¹ Hierakonpolis was a major Predynastic center, beginning perpendicular to the Nile along the Great Wadi and later moving down onto the Nile floodplain. According to Hoffman's model, occupation at Hierakonpolis is first seen in the Badarian period (ca. 4000-3700 B.C.), with small scattered farming villages.¹² Nagada I times (ca. 3700-3400 B.C.) were a period of regional expansion. Rectangular houses were found in agglomerated settlements, and Hierakonpolis was becoming a ceremonial center. In Nagada II times (ca. 3400-3200 B.C.) there was a settlement shift from the desert to the edge of cultivation. The nucleated settlement on the Kom el-Ahmar was 4.5 hectares at a time when Hierakonpolis experienced political centralization and a differentiated economy. The Nagada III period (ca. 3200-3100 B.C.) was a time of political unification, when floods were low and most desert sites were abandoned. While much work has been accomplished at Hierakonpolis since excavations resumed in 1967 (but were interrupted by the 1967 war), publication of this

⁵ Humphrey Case and Joan C. Payne, "Tomb 100: The Decorated Tomb at Hierakonpolis." *Journal of Egyptian Archaeology* 48 (1962) 10.

⁶ Payne, "Tomb 100: The Decorated Tomb at Hierakonpolis Confirmed." *Journal of Egyptian Archaeology* 59 (1973) 31.

⁷ Michael Allen Hoffman, *The Predynastic of Hierakonpolis: An Interim Report* (Cairo: Egyptian Studies Association, 1982) 123-27.

¹² Hoffman, "Urban Growth at Hierakonpolis in the Predynastic and Archaic periods" (Paper given at the American Research Center in Egypt Annual Meeting, Columbia University, 27 April 1985).

⁵ J. E. Quibell, *Hierakonpolis*, Part I (London: Egypt Research Account, 1900).

⁶ John Garstang, "Excavations at Hierakonpolis, at Esna, and Nubia." *Annales du Service des Antiquités de l'Égypte* 8 (1907) 137.

⁷ Barry J. Kemp, "Excavations at Hierakonpolis Fort, 1905: A Preliminary Note." *Journal of Egyptian Archaeology* 49 (1963) 26.

⁸ Needler, *Predynastic and Archaic Egypt*, 110.

data remains preliminary as the excavations and analysis continue.

Across the river from Hierakonpolis on the east bank is the site of El-Kab. A cemetery with "New Race" (Predynastic) graves was excavated at El-Kab in 1897 by Quibell, along with cemeteries of pharaonic date.¹³ A list of 21 "Libyan" tombs is given by Quibell,¹⁴ which he cites as being anterior to the Old Kingdom.¹⁵ Quibell also found pottery, palettes, and lithics in graves that he states are "distinctly of the *later* type of Ballas."¹⁶ The few prepharaonic graves excavated at El-Kab by Quibell are scattered and poorly described. Grave goods are listed only very generally, with no numbers for wares or types. Quibell seems to have been mainly interested in the later cemeteries in the El-Kab region, and the information on Predynastic graves there is scanty.

Down river from El-Kab and Hierakonpolis on the west bank, 9 km southwest of Luxor, is the Predynastic site of Armant. A Predynastic village was excavated there in area 1000, but without much concern for stratigraphy. This settlement is 2 km from Cemetery 1400-1500, and a closer Predynastic settlement to this cemetery remains unexcavated.¹⁷ Predynastic cemeteries at Armant consist of Cemetery 1400-1500, which is well mapped, and a few scattered Predynastic graves and tombs in areas 1200 and 1300. The Predynastic burials at Armant are the best documented group in Egypt.

While Thebes and Karnak were major centers during pharaonic times, a survey for Predynastic sites there has been lacking until recently. Ginter, Kozłowski, and Sliwa report architectural elements on the Theban gebel and alluvial plain west of the Fadiliye Canal, including "Naqadian layers" and several dwellings with Naqadian flints and ceramics.¹⁸ Numerous Predynastic

graves were also located in this area, but this work remains preliminary.

Located 28 km northwest of Luxor on the west bank, the three Predynastic cemeteries at Nagada ("Great New Race Cemetery" and Cemeteries B and T) were excavated by Petrie in 1894-1895. Two Predynastic towns were also partly excavated in this region, North Town and South Town. With over 2000 graves, these three cemeteries along with the estimated 1000 burials excavated by Quibell at Ballas (just north of Nagada)—the latter unpublished with no known records—form the largest burial place in Predynastic Egypt.¹⁹ Although a detailed map of the Nagada cemeteries exists, Petrie's publication of the Nagada data was incomplete. More recently, Baumgartel has published a register of Nagada graves taken from Petrie's field notes.

While Petrie's fieldwork was fairly thorough, Hassan has surveyed and excavated a number of smaller Predynastic sites in the Nagada region near the village of El-Khattara. Full excavation reports are yet to be published, but Hassan has evidence at a number of sites for domestic enclosures, with positive identifications of both domesticated cereals and animals.²⁰

Second only to Nagada and Ballas in size are the Predynastic sites at Diospolis Parva, 45 km northwest of Nagada just below the Qena bend in the Nile. Petrie excavated two prehistoric villages (F, H) there in 1898-1899, along with five "prehistoric" cemeteries (U, R, B, C, A).²¹ Some of these sites had already been destroyed by antiquities dealers, and one of the villages was "entirely plundered."²² Not all of the graves are listed in Petrie's publication, only the unusual or important ones, but it can be determined from Petrie's text that there were at least 1167 Predynastic burials, and probably more. For Cemetery B, Petrie writes of "up to 570" burials.²³

¹³ Quibell, *El Kab* (London: Egypt Research Account, 1898).

¹⁴ *Ibid.*, plate 17.

¹⁵ *Ibid.*, 12.

¹⁶ *Ibid.*, 13.

¹⁷ Sir Robert Mond and Oliver H. Myers, *The Cemeteries of Armant* (London: Egypt Exploration Society, 1937), 1:7, 163.

¹⁸ Boleslaw Ginter, Janusz L. Kozłowski, and Joachim Sliwa, "Excavation Report on the Prehistoric and Predynastic Settlement in El-Tarif during 1978," *Mitteilungen des*

deutschen Institut für ägyptische Altertumskunde im Kairo 35 (1979) 87.

¹⁹ Petrie and Quibell, *Nagada and Ballas* (London: British School of Archaeology in Egypt, 1896).

²⁰ T. R. Hays, "Predynastic Egypt: Recent Field Research," *Current Anthropology* 17 (1976) 352.

²¹ Petrie, *Diospolis Parva: The Cemeteries of Abadiyeh and Hu* (London: Egypt Exploration Fund, 1901) 31-32.

²² *Ibid.*, 31.

²³ *Ibid.*, 34.

While no map is given for the location of graves, the significance of the Diospolis Parva cemeteries lies in the typological system (Sequence Dates, or S.D.) Petrie worked out for the grave goods there (pottery, palettes, stone vessels, ivory carvings, stone tools, and copper tools), and the evolution of these through time. How large-scale the occupation at Diospolis Parva was in Predynastic times, however, is difficult to surmise from the mainly mortuary data.

Abydos, the other major center of Predynastic culture in Upper Egypt along with Hierakonpolis and Nagada, is better known for its Early Dynastic royal tombs than for its Predynastic evidence. Eight Predynastic kilns for parching grain were excavated in the Cemetery D area of the Osireion, but no mention is made of an occupational context for these.²⁴ The grain kilns consisted of two parallel rows of large jars of Rough-ware sunk into the ground in which carbonized organic matter was found.

Predynastic cemeteries in the Abydos region are in three areas: near the Osireion, and the villages of El-Amra and El-Mahasna. Cemetery E, 300 m north of the Osireion, contained Predynastic graves along with pharaonic and Roman shaft tombs. Excavated in 1909-1910 by Naville and Peet, Cemetery E was incompletely published, with 39 burials with grave goods listed in the text, and another register of Predynastic graves listed further on.²⁵ No map of this cemetery is given in Part I of the publication, but a small part of Cemetery E is recorded in Part II, along with a list of 17 more Predynastic graves with grave goods.²⁶ Grave numbers for Cemetery E go up to 4580, but it is unknown how many of these were Predynastic.

About 8.9 km southeast of the First Dynasty royal cemetery at Abydos lie two other Predynastic cemeteries; they are 0.8 km north of the village of El-Amra, from which the term Amratiian (Nagada I) is derived. Prior to excavation by Randall-MacIver and Mace in 1901, Cemeteries A and B were considerably plundered. Cemetery A,

with 223 graves, had an estimated 200 more. Cemetery B, which was both late Predynastic and Dynasty 1, had about 400 graves with possibly 100 more.²⁷ Two other Predynastic cemeteries at Abydos were also noted by the excavators: Cemetery O with 85 graves and Cemetery X with 88 graves.²⁸ Of the over 1000 Predynastic and Early Dynastic burials in the Abydos region that Randall-MacIver and Mace either excavated or estimated, none were plotted on a published map. Only 108 graves are listed completely with grave goods, ranging in Sequence Dates. It is from the El-Amrah excavations that a unique clay model of a rectangular Predynastic house comes.

Also in the Abydos region is the Predynastic cemetery at El-Mahasna, 1.3 km north of Abydos, with an estimated 600 graves.²⁹ The cemetery ranges through all of the Predynastic periods, the latest graves being some brick-lined tombs of early Dynasty 1.³⁰ Many of these graves had been plundered by grave robbers, both ancient and modern. Benefiting from Petrie's Sequence Dating system, the excavators listed 106 graves by their Sequence Dates with very complete descriptions of grave goods, grave type, and body placement. Twenty-seven other plundered graves are listed with the remaining pottery. No detailed map of the cemetery is given, however, but the excavation report is very descriptive of the types of graves, ranging from rough oval and circular graves in the early Sequence Dates, to (later) more rectangular graves, some of which were roofed or lined with wood or mudbrick.

The Predynastic cemetery at Naga-ed-Der, downriver from Abydos on the west bank opposite Girga, was excavated by Lythgoe in 1903-1904, but published by Dunham in 1965 using Lythgoe's field notes.³¹ It is not known if Lythgoe excavated or noted a Predynastic settlement near

²⁴ T. E. Peet and W. L. S. Loat, *The Cemeteries of Abydos*, Part III, 1912-1913 (London: Egypt Exploration Fund, 1913).

²⁵ Edouard Naville, *The Cemeteries of Abydos*, Part I, 1909-1910 (London: Egypt Exploration Fund, 1914) 15-17, 31.

²⁶ Peet, *The Cemeteries of Abydos*, Part II, 1911 (London: Egypt Exploration Fund) 17-19.

²⁷ D. Randall-MacIver and A. C. Mace, *El Amrah and Abydos* (London: Egypt Exploration Fund, 1902) 50.

²⁸ *Ibid.*, 51.

²⁹ Edward R. Ayrton and W. L. S. Loat, *The Predynastic Cemetery at El-Mahasna* (London: Egypt Exploration Fund, 1911), 51.

³⁰ *Ibid.*, 2-3.

³¹ Albert M. Lythgoe and Dows Dunham, *The Predynastic Cemetery N7000 Naga-ed-Der*, Part IV (Berkeley: University of California, 1965).

this cemetery. Graves in the Naga-ed-Der cemetery are numbered from 7001-7635, so presumably Lythgoe excavated over 600 Predynastic burials. While Lythgoe recorded detailed descriptions of body position and condition, extent of plundering, grave size, and sex, grave goods are only given in general descriptions, such as "RW dish" (Red-ware), and not by their Petrie corpus numbers. A map of the cemetery, which measured approximately 90 x 80 m, locating all of the numbered graves, is given in Dunham's publication.

Finally, in Upper Egypt mention should be made of a Predynastic village and tombs found in the region of Lakeita in the Wadi Hammamat, the major east-west route between the Nile Valley at Nagada and the Red Sea. Lakeita is 33 km east of Qus, which is opposite the river from Nagada. The Predynastic remains were located by Debono on a survey along the Wadi Hammamat.³² Debono also located some Early Dynastic villages in this region, but the report of these finds is very sketchy.

2. Middle Egypt

For the expanse of Middle Egypt, Predynastic sites are known only in the Badari district, on the east bank of the Nile 30 km southeast of Assiut. Excavated by Brunton and Caton-Thompson in the 1920s, the remains of prehistoric settlements and cemeteries in this region are thought to be earlier than those from Petrie's Predynastic excavations, as demonstrated in the stratified midden at Hemamieh.³³ The name of this early Predynastic culture, the Badarian, was thus derived from the excavations in the Badari district. Brunton also thought that the graves he excavated at Deir Tasa, with stone celts and black incised pottery, represented an early phase of the Badarian;³⁴ but Baumgartel has more recently demon-

strated that the Tasian, as Brunton termed it, was merely a form of the Badarian.³⁵

At El-Badari, Brunton and Caton-Thompson located the remains of Predynastic settlements on spurs 2-12, and cemeteries at spurs 14-19.³⁶ The small settlement on the north spur at Hemamieh was only 40 x 50 yds, with some hut circles, and a 6.5 ft. midden.³⁷ Maps are given in the 1928 publication of two small Predynastic cemeteries (Qau 100, Badari 3700 and 3800), and grave goods are listed in a register of 306 Predynastic graves, from other sites as well as those mapped.

Rectangular brick-lined tombs and Early Dynastic staircase tombs were also excavated by Brunton and Caton-Thompson in the Badari district. Brunton termed these tombs "Protodynastic," which he dated to Dynasties 1-2, based on pottery types given in Petrie's Tarkhan I corpus for Protodynastic pottery.³⁸ Cemetery 1500-1800 at Hemamieh is listed in a register of 61 graves with itemized grave goods, and a map is also given of this cemetery.³⁹ Another 96 graves listed as S.D. 77-82 are given in this register. A very plundered Cemetery 6000, also thought to be of Dynasty 1 date, was located by Brunton.

At Mostagedda, Brunton excavated several small Predynastic villages consisting of circular huts and middens.⁴⁰ Cemeteries at Mostagedda range in date from Badarian and Predynastic, to dynastic and Pan-grave. A register of 204 Predynastic and 13 "Protodynastic" graves with grave goods is given, but there is no published map for these burials. North of Mostagedda at Matmar, Brunton lists some 200+ Predynastic graves, but only one map of Cemetery 2600-2700 is given, containing 123 Predynastic graves.⁴¹ Another 74 graves are listed for Matmar with Sequence Dates of 74-81, but these graves are

³³ Elise J. Baumgartel, *The Cultures of Prehistoric Egypt* (London: Oxford University, 1955), 1:20-21.

³⁶ Brunton and Caton-Thompson, *Badarian Civilization*, 430.

³⁷ *Ibid.*, 69.

³⁸ Brunton, *Qau and Badari I* (London: British School of Archaeology in Egypt, 1927) 10.

³⁹ *Ibid.*

⁴⁰ Brunton, *Mostagedda and the Tasian Culture* (London: British Museum Expedition to the Middle East, 1937).

⁴¹ Brunton, *Matmar* (London: British Museum Expedition to the Middle East, 1948).

³² Fernand Debono, "Expédition archéologique royale au désert oriental (Keft Kosseir)," *Annales du Service des Antiquités de l'Égypte* 51 (1951) 88.

³³ Guy Brunton and Gertrude Caton-Thompson, *The Badarian Civilization* (London: British School of Archaeology in Egypt, 1928), 69.

³⁴ *Ibid.*, 32.

scattered in different areas. On the whole, the Predynastic settlements and cemeteries in the Badari district are of a small scale, scattered along spurs from Matmar in the north to Qau el-Kebir in the south. None of these sites represent Predynastic culture on the scale of what is found at several major sites in Upper Egypt.

3. The Fayum

In the expanse of Nile Valley to the north of Brunton and Caton-Thompson's excavations, no Predynastic sites are known between Badari and El-Fayum, over 300 km downriver. Middle Egypt is the least archeologically surveyed area in the Egyptian Nile Valley, and while the major Predynastic sites are found in Upper Egypt, it is not to be expected that Predynastic settlements suddenly stopped at El-Badari. It is not until the Fayum region, however, that three Predynastic sites appear: Abusir El-Meleq, Harageh, and Gerza.

At Abusir El-Meleq, about 10 km west of the present Nile, several hundred Predynastic burials were excavated in the 1960s.⁴² In the 1969 publication of the excavation, Möllers and Scharff give no map of the site, and grave goods are listed only generally by material and ware, and not by Petrie corpus numbers. The plates of artifacts show a range from Nagada I and II times, but it is impossible to date the graves more specifically. Abusir El-Meleq seems to have been one of the larger Predynastic cemeteries in Lower Egypt, and it is unfortunate that it is so poorly documented.

Harageh, southeast of the village of Lahun, was excavated in 1913-1914 by Engelbach, and consists of two Predynastic cemeteries, G and H.⁴³ While many graves were robbed, Engelbach places the date for both cemeteries between S.D. 55-58, based on the pottery in burials there. A plan is given of Cemetery E, with 30 graves, but none is given for Cemetery H, part of which lay

under a Dynasty 18 village.⁴⁴ Only the more unusual graves are listed by Engelbach with grave goods, and whereas Decorated-ware was found in both cemeteries, there were no slate palettes and very few beads, unlike the nearby cemetery at Gerza. Wavy-handled ware was found only in Cemetery G, and a "corrugated black-polished" ware was found only in Cemetery H.⁴⁵ With a low number of burials, it seems likely that Harageh was only a small Predynastic community.

Much larger in scale is the cemetery of Gerza, from which the term Gerzean (Nagada II period) is derived. Gerza is located on the west bank, about 7 km northeast of Medum. Petrie excavated 288 Predynastic burials at Gerza, a high percentage of which were intact.⁴⁶ Of the intact burials, 198 were of adults and 51 were of infants or children.⁴⁷ As was the custom of the time, only a selection of graves was published with grave goods, but a numbered map of the cemetery is provided. Compared to the major cemeteries in Upper Egypt, however, Gerza is small in scale.

4. Lower Egypt

South of Cairo on the east bank, evidence of Predynastic culture has been found at two sites: El-Omari and Maadi. At Tarkhan, south of Helwan, Petrie excavated graves of the Terminal Predynastic (S.D. 77-82), including a very large palace-facade tomb, but no earlier burials were found there.⁴⁸ Mention is also made of sites in Heliopolis, in northern Cairo, which date to Nagada I-II, but these are unpublished.⁴⁹

Debono, the excavator of the El-Omari sites (3 km northeast of Helwan), found two different cultural groups, which he dated from early

⁴² Ibid., 6.

⁴³ Ibid., 7.

⁴⁴ Petrie, G. Wainwright, and E. MacKay, *The Labyrinth, Gerzeh and Mazguneh* (London: British School of Archaeology in Egypt, 1912) 5.

⁴⁵ Ibid., 5.

⁴⁶ Petrie, Wainwright, and A. H. Gardiner, *Tarkhan I and Memphis V* (London: British School of Archaeology in Egypt, 1913).

⁴⁷ Debono, "La civilization prédynastique d'el Omari (nord d'Helouan). Nouvelles données," *Bulletin de l'Institut d'Égypte* 37 (1956) 339.

⁴² Georg Möllers and Alexander Scharff, *Die archäologischen Ergebnisse des vorgeschichtlichen Gräberfeldes von Abusir el-Meleq* (Osnabruch: Otto Zeller, 1969).

⁴³ R. Engelbach, *Harageh* (London: British School of Archaeology in Egypt, 1923).

Nagada I to the beginning of Nagada II: a village on the west where the dead were interred in houses, and a second village separated from its cemetery, where each grave was covered with a mound of stone.⁵⁰ Hayes places the western village with in-house burials ("Omari A") contemporary with Nagada I, and believes it is likely that these villagers were superseded by settlers of the village that is separate from its cemetery ("Omari B"), beginning in Nagada II times.⁵¹ The western village (Omari A) extended over a large area and included oval structures shaped by post-holes and circular semisubterranean structures, both houses and storage units.⁵² Emmer and barley seeds were found throughout the El-Omari sites; fauna included domesticated species (goat and a bovid), and wild species (hippopotamus, crocodile, tortoise, snail, fish, ostrich, antelope, pig).⁵³ Pottery at El-Omari is unlike most of the Predynastic Nagada wares: only polished wares in red, brown, and black were found.⁵⁴ Unlike Badarian and Predynastic sites in Middle and Upper Egypt, El-Omari has no evidence of copper. Stratigraphy does not seem to have been a concern in the excavations, but Debono mentions that in the western village the circular pits show two levels of occupation.⁵⁵ In most respects, the prehistoric sites at El-Omari are typologically very different from those in Upper Egypt.

Maadi, the other major prehistoric site in the Cairo region, was excavated in the 1930s by Menghin and Amer. While the excavators' reports are very cursory, a more coherent account of all work done at Maadi has been published by Hayes.⁵⁶ Lying on a low desert ridge at the mouth of the major wadi leading to the copper deposits at the Gebel Ataq and the Sinai, Maadi is a 45-acre site. The subsistence economy at

Maadi depended mainly on domesticated grains (wheat, barley) and fauna (pig, cattle, sheep, goat), and there is considerably less evidence for hunting and fishing. Also prominent in the Maadi economy was copper working:

The site has yielded copious evidence that copper ore was imported and worked in some bulk and that locally a knowledge of smelting, casting, and other metallurgical processes had advanced sufficiently for the production of a variety of metal implements, some fairly large and complex in form.⁵⁷

While no map exists of the site, houses and shelters were concentrated in the center of Maadi, with "silos, provision cellars, and huge, buried storage-jars distributed around the periphery."⁵⁸ The most common house type was an "oval hut or horseshoe-shaped windbreak," with walls of wattle and daub.⁵⁹ Even the remains of rectangular buildings were of wattle and daub, and in one case the logs were laid horizontally. Mudbrick could not be associated with any of the prehistoric structures. Several subterranean structures were also found, both round and rectangular, with entrance steps cut into the ground. The remains of stout fences or palisades, scattered human bones, the absence of valuable articles, and ash layers suggested to Hayes that the Maadi settlement was sacked and burned at least once in its history.⁶⁰

The most common pottery at Maadi was unlike that from Upper Egyptian sites, and for the most part was monochrome: a smooth red ware and a polished black ware.⁶¹ Jars of "Syro-Palestinian types," also found at Nagada II sites in Upper Egypt, appear at Maadi as well: Wavy-handled jars, and ledge- and lug-handled jars.⁶² A few sherds of Black-topped red ware and rhomboid-shaped palettes suggest contact with the south and occupation at Maadi beginning in Nagada I times. Cylindrical cups made of a fine

⁵⁰ Ibid., 330.

⁵¹ William C. Hayes, *Most Ancient Egypt* (Chicago: University of Chicago, 1965) 120-22.

⁵² Debono, "El-Omari (près d'Helouan): Exposé sommaire," *Annales du Service des Antiquités de l'Égypte* 48 (1948) 362.

⁵³ Ibid., 567.

⁵⁴ Debono, "Helouan: El-Omari," *Chronique d'Égypte* 21 (1946) 52.

⁵⁵ Debono, "La civilisation prédynastique d'el Omari," 334.

⁵⁶ Hayes, *Most Ancient Egypt*, 22-34.

⁵⁷ Ibid., 128.

⁵⁸ Ibid., 123.

⁵⁹ Ibid., 123.

⁶⁰ Ibid., 123.

⁶¹ Ibid., 124-25.

⁶² Ibid., 125.

translucent "limestone" suggest continued use of the site into Early Dynastic times.⁶³

Chipped stone tools from Maadi are primarily flakes and blades, related to those of Western Asia.⁶⁴ According to Hayes, the Maadi-chipped stone tools contrast those of earlier northern settlements, such as Merimda and the Fayum, where bifacially-worked stone tools predominate.⁶⁵

Three associated cemeteries have also been reported in the vicinity of the Maadi settlement, one at "Maadi South" with 468 human burials and 14 burials of gazelles and a dog.⁶⁶ Hayes's account of the Maadi settlement and cemeteries, while brief, is informative of a (later) prehistoric settlement in Lower Egypt. Although archeological evidence at Maadi is mainly from a settlement site, unlike most of the surviving evidence for the Predynastic culture of Upper Egypt, what is known about Maadi suggests a culture contemporaneous with but very different from that of the south.

In the Delta, only one major prehistoric site has been excavated, and this site, Merimda, is on the Delta's western fringe, about 60 km northwest of Cairo. Merimda was excavated by Junker from 1928 to 1939; unfortunately, most of the excavation notes were lost in World War II.⁶⁷ Junker believed that the 160,000 m² of occupation debris was occupied continuously, but Kemp states that given the almost complete absence of anything suggesting communal organization, there was horizontal displacement of the settlement through time.⁶⁸

Radiocarbon dates for Merimda range from 4150-1650 B.C., but Baumgartel suggests that a range of 4150-2600 B.C. is more likely.⁶⁹ Discerning three levels of occupation, Baumgartel reports that the lowest level had only hearths, chipped stone, and pottery of polished red ware, and brown ware with a herringbone pattern,

related to Nubian A-Group pottery.⁷⁰ Oval or horseshoe-shaped huts were found in Level II. In the top Level III, semisubterranean houses with smoothed mud floors were found, sometimes with associated granaries and threshing floors, with evidence of emmer.⁷¹ Pottery from Level III is of an unpolished, coarse chaff-tempered ware impressed with patterns around the rim. Black-topped red ware sherds have been found at Merimda, but it is uncertain from which level.⁷² Stone tools at Merimda show affinities with the Fayum A, Libyan, and Sudanese Neolithic industries. On the whole there is not much cultural similarity between Merimda and the Egyptian Predynastic sites.

Given the horizontal displacement of the Merimda settlement through time, Kemp believes it is questionable as to what extent the in-settlement burials and houses were contemporary.⁷³ Unlike Predynastic burials, the Merimda ones were without grave goods. A high percentage of these burials were of children, and Kemp estimates that in relation to the size of the area excavated, there is a very small number of burials: three to five adults buried every fifty years in the total village area.⁷⁴

5. Implications for Trade and Exchange in Predynastic Geography

The emerging picture of Egypt in the fourth millennium B.C. is of two very different cultures, with different site plans and different material goods: the Predynastic cemeteries of Upper Egypt and the village settlements of Lower Egypt. Archeological evidence in Lower Egypt of mainly settlements (some with in-village burials) gives a very different view of culture from the mainly cemetery archeology known for the Upper Egyptian Predynastic. While the rich grave goods in several major cemeteries in Upper Egypt represent acquired wealth of some social strata, the economic sources of this wealth cannot be pinpointed. In Lower Egypt a fuller view of the

⁶³ *Ibid.*, 126.

⁶⁴ *Ibid.*, 126-27.

⁶⁵ *Ibid.*, 126.

⁶⁶ *Ibid.*, 132.

⁶⁷ Baumgartel, *Cultures of Prehistoric Egypt* I, 502.

⁶⁸ Kemp, "Merimda and the Theory of House Burial in Prehistoric Egypt," *Chronique d'Égypte* 43 (1968) 27.

⁶⁹ Baumgartel, *Cultures of Prehistoric Egypt* I, 510.

⁷⁰ *Ibid.*, 503.

⁷¹ Hayes, *Most Ancient Egypt*, 105.

⁷² Baumgartel, *Cultures of Prehistoric Egypt* I, 505.

⁷³ Kemp, "Merimda and the Theory of House Burial," 26.

⁷⁴ *Ibid.*, 26.

prehistoric economy can be demonstrated despite the poor quality of excavation and recording there, from the mainly village farming communities at El-Omari and Merimda, to the copper industry at Maadi, probably an important source of trade and exchange.

Although evidence of Predynastic culture extends to the Fayum region, these cemeteries are relatively small in comparison to those of major centers in Upper Egypt. Evidence of Predynastic material in midden deposits from villages in Middle Egypt does not suggest large centers, either; and perhaps the Badari and Fayum sites represent a (later) expansion of Predynastic culture northward. Based mainly on cemetery archaeology, which is often lacking in mapped sites, complete registers of graves and grave goods, and data relevant to chronology, three core areas emerge in Upper Egypt as major centers of Predynastic culture: Abydos, Nagada, and Hierakonpolis, with Diospolis Parva following closely behind. While ongoing excavations at Hierakonpolis and Abydos will hopefully expand an understanding of Predynastic and Early Dynastic development there, Nagada was very thoroughly excavated by Petrie, and much of Hassan's work there has been concerned with filling in the many unanswered questions.

That craft goods and an exchange network for these became increasingly significant in Predynastic times, as an elite system emerged, can possibly be interpreted from the geography of the major sites in Upper Egypt. Abydos today is the richest agricultural zone in Upper Egypt, and presumably agriculture was the basis of its wealth in Predynastic times, that is, the potential to support a large population as reflected in the numerous Predynastic cemeteries in this region. Abydos, though, is also the closest Nilotic site to the western oases, and was possibly a center through which materials from the west were funneled (such as elephant ivory, ochre, certain bead stones, and stones for carved vessels). Hierakonpolis, though farther in distance, also had access to resources in the Western Desert, and it is opposite the river from the Wadi Abbad, with its gold mining potential.⁷⁵ South of Hierakonpolis, the Nubian sandstone formation begins and the

valley greatly narrows, thus Hierakonpolis was the terminal point of agricultural productivity in Egypt.⁷⁶ Because of its location, Hierakonpolis probably became an important Predynastic trading node for materials coming from the south (such as elephant ivory, ebony, and other southern goods imported in pharaonic times). Artifacts characteristic of the Upper Egyptian Predynastic are found in numerous A-group sites in Lower Nubia. Trigger notes that "copper tools, slate palettes, and linen cloth also appear to count among the luxury goods that were imported from Egypt at the time."⁷⁷ Hierakonpolis would be the logical node through which Egyptian goods were exported to Nubia, and the source of all southern luxury goods in Egypt.

Nagada, like Hierakonpolis, is located opposite the river from another gold mining region, in the Wadi Hammamat. Hassan suggests that gold was important at Nagada, and at one Early Dynastic site (KH2) a seal impression with the hieroglyph for gold was found.⁷⁸ The Wadi Hammamat was also a major source of slate, used for the numerous palettes found in the Nagada cemeteries, as well as a route to Eastern Desert sources of stone, used for beads and carved vessels found in Nagada graves, and possibly copper mines. In pharaonic times the Wadi Hammamat was the major overland route from Upper Egypt to the Red Sea, and control of foreign trade via this wadi was another possible source of wealth for Nagada in Predynastic times. Turquoise and obsidian, found at Nagada but not obtainable in Egypt, could have reached Egypt via a Red Sea trade, and then overland to Nagada via the Wadi Hammamat, which the Nagadans were actively exploiting for stones and minerals. As a center where materials for craft goods were routed, it is also possible that Nagada developed as a center for craft production.

That Nagada, Hierakonpolis, and Abydos were the three largest centers in Predynastic Egypt as well as being strategically located for trade

⁷⁵ John A. Wilson, "Buto and Hierakonpolis in the Geography of Egypt," *Journal of Near Eastern Studies* 14 (1955): 233.

⁷⁶ B. G. Trigger, "The Rise of Egyptian Civilization," *Ancient Egypt: A Social History* by B. G. Trigger, B. J. Kemp, D. O'Connell, and A. B. Lloyd (Cambridge: Cambridge University, 1983) 42.

⁷⁷ Fekri A. Hassan, personal communication.

⁷⁸ A. Lucas and J. R. Harris, *Ancient Egyptian Materials and Industries* (London: Edward Arnold, 1962) 225.

and exploitation of resources for craft goods is not simply coincidental. In Predynastic Middle Egypt there were numerous, small farming villages, but no central places on the scale of Abydos, Nagada, or Hierakonpolis. Given the large cemeteries in these three sites with numerous grave goods, an explanation for the emergence of these centers points to the development of major trading nodes. (The meaning of trade here is in the widest sense of the term: "the reciprocal traffic, exchange, or movement of materials or goods through peaceful human agency.")⁷⁹ Whatever nucleated centers in Predynastic Egypt represent in terms of social organization, agriculture alone, or the storage of agricultural surplus, is not enough of an explanation for the emergence of these centers, as the continued existence of numerous small villages in Middle and Upper Egypt attest, whereas the emergence of trade and exchange nodes is a more logical *raison d'être* for nucleation there.

Geographical location, in terms of trade and access to materials for craft production, also helps to explain the emergence of a center at Maadi, in Lower Egypt. At the mouth of a wadi leading to copper deposits in the Gebel Ataq and Sinai,⁸⁰ Maadi was advantageously located for its developing copper industry, as well as for trade through the Sinai with Palestine. Evidence for trade and exchange with Western Asia in Predynastic times is in the introduction of certain pottery types (ledge-handled jars similar to those from early Chalcolithic levels at Beth Shan and Jericho),⁸¹ the introduction of domesticated cereals and fauna of West Asian origin, imported materials (lapis lazuli, possibly bitumen, resins, and obsidian), and imported pottery of Palestinian origin.⁸²

Unlike early trade in Mesopotamia, trade or importation of materials in Predynastic Egypt seems mainly to have been for nonutilitarian,

nonsubsistence items, which also would have enhanced status in an increasingly differentiated society. Resources for basic subsistence were readily available locally: flint, stone, mudbrick, clay, some wood (acacia, sycamore, and persea), as well as domesticated cereals and fauna, supplemented by fishing, fowling, and hunting. Trade or exchange would thus initially have been a result of the status needs of an elite—not basic resources lacking in the environment. In Predynastic Egypt, differential access to status goods would have been the focus of increasing social stratification, and not competition and control of basic subsistence resources, up to a certain population threshold. According to Stevenson, growth of trade in the interior of West Africa resulted in inequalities in wealth, the emergence of social classes, and "at least partial state formation."⁸³ It is likely that trade served a similar function for the increasingly stratified societies of Upper Egypt in Nagada II times.

Increasing Predynastic trade also explains the rise of an administrative class in the local societies of Upper Egypt. The rise of institutions that procured materials (sometimes from long distances) for craft goods, that secured a steady production of these items to meet societal demands, and that organized trade of these items (regional and long-distance into Nubia) can perhaps be viewed as the genesis of a managerial elite. As Rathje writes about the Lowland Classic Maya, "the production of such commodities for long-distance exchange was also beyond the capacity of individual households and reinforced the need for complex concentration and procurement systems."⁸⁴ Craft specialization would thus increasingly have required a hierarchy within the society to organize and run these activities, the products (craft goods) of which became identified with an elite class as symbols of their status.

The geography of excavated Predynastic sites in Egypt, then, points to several large central places in Upper Egypt, based mainly on cemetery data. Although evidence from settlements is

⁷⁹ Colin Renfrew, "Trade and Culture Process in European Prehistory," *Current Anthropology* 10 (1969) 152.

⁸⁰ Hayes, *Most Ancient Egypt*, 122.

⁸¹ Helene J. Kantor, "The Relative Chronology of Egypt and Its Foreign Correlations before the Late Bronze Age," *Chronologies in Old World Archaeology* (ed. Robert W. Ehrich; Chicago: University of Chicago, 1965) 7.

⁸² J. Hennessy, *The Foreign Relations of Palestine during the Early Bronze Age* (London: Colt Archaeological Institute, 1967) 27-30.

⁸³ Robert F. Stevenson, *Population and Political Systems in Tropical Africa* (New York: Columbia University, 1968) 225.

⁸⁴ William L. Rathje, "Models for Mobile Maya: A Variety of Constraints," *The Explanation of Culture Exchange* (ed. Colin Renfrew; London: Duckworth, 1973) 736-37.

lacking for these central places, their location strongly suggests centers of exchange and trade. No such centers are known for Middle Egypt, but centers of exchange and production of craft goods seem to have existed in Lower Egypt, such as at Maadi. That trade and exchange were important factors as society in Predynastic Egypt became increasingly complex seems likely, particularly given the distribution of Predynastic craft goods in cemeteries from Gerza in the north to the Nubian A-group in the south.

6. Geography and the Rise of the State in Egypt

With the dessication of the Egyptian Western Desert by the fifth millennium B.C., more pastoralists and hunter-gatherers were forced into the Nile Valley.⁸⁵ Once a Neolithic economy had been adopted, the population within the Egyptian Nile Valley grew incrementally as well. A survey of Predynastic sites in Egypt not only suggests a growing population, but also demonstrates the centralization forces at work once sedentary farming villages developed there.

As central places evolved, there was a corresponding expansion of trade in nonfood goods, as demonstrated in large Predynastic cemeteries such as Nagada, which was attendant upon the rise of an elite and status differentiation.⁸⁶ Trade in elite goods represents control of one form of wealth, as well as visible symbols of status. As Adams points out, a concern for trade highlights interactions between groups in ancient societies: "partly aggressive, partly symbiotic, at best only partly intelligible to the societies involved, at most times dangerously competitive."⁸⁷ Given the competitive potential of early trade in Egypt, if the flow of goods was blocked, economic stress would have occurred, leading to means to allevi-

ate this stress and control resources. Interregional control of resources could have been achieved either by warfare or by coalition.

Conflicts in trade, trade routes, or access to resources inevitably arose in later Predynastic Egypt, leading to increased militarism of local leaders. Economics is often an underlying reason for social and political change. An indication of conflict or the threat of conflict is the two-meter-thick mudbrick enclosure wall at the Nagada South Town.⁸⁸ Evidence for walled towns also comes from Diospolis Parva, where Petrie excavated a Predynastic grave B83 (S.D. 33-40), in which he found a group of clay toys: "the most remarkable is a model of a walled town, with men looking over it."⁸⁹ That considerable conflict took place in the Terminal Predynastic also seems indicated by representational evidence on palettes stylistically dating to the period.

Without written records, a history of Terminal Predynastic conflict can only be hypothesized in terms of the geography. I suggest that conflict began with Hierakonpolis in the south because the floodplain is narrowest there, and population pressure would first be felt in such a constricted environment. A response to an increasingly predatory Hierakonpolis would be increasing militarism by the other two major Predynastic centers, Nagada and Abydos. Conflict and conquest at this time can be seen as a buffering mechanism to ensure a continued subsistence base along with the continued distribution of materials and craft goods by the ruling elite.

Carneiro's circumscription theory for the origin of the state is particularly appealing in terms of the geographical evidence for late Predynastic sites in Upper Egypt.⁹⁰ There is a historical tradition (Manetho) that a king came from the south and united Egypt into the First Dynasty around 3000 B.C. Once the population reached a certain threshold in the major center of Hierakonpolis in the south, given an increasingly circumscribed environment, there was nowhere to go but northward, to increase (agricultural) land holdings by conquest.

⁸⁵ Kemp, "Early Development of Towns in Egypt," *Antiquity* 51 (1977) 198.

⁸⁶ Petrie, *Diospolis Parva*, 32.

⁸⁷ Robert L. Carneiro, "A Theory of the Origin of the State," *Science* 169 (1970) 733-38.

⁸⁵ F. A. Hassan, "Mid-Holocene Desertification and Human Responses in the Western Desert of Egypt" (Paper given at the 17th Annual Chacmool Conference, Calgary, Alberta: Man and the Mid-Holocene Climatic Optimum, 1984) 6.

⁸⁶ F. A. Hassan, T. R. Hays, A. A. Hassan, J. Gallagher, A. Gautier, W. Wetterstrom, "Agricultural Developments in the Nagada Region during the Predynastic Period" (Paper given at the American Research Center in Egypt Annual Meeting, San Francisco, 13-15 April 1980) 6.

⁸⁷ Robert McCormick Adams, "Anthropological Perspectives on Ancient Trade," *Current Anthropology* 15 (1974) 249.

Later Nagada II times was possibly the period of initial military struggle in Upper Egypt and state formation, whereas the Nagada III period was one of large-scale warfare throughout Egypt, in which the entire country was unified by the beginning of Dynasty I. Geography also explains the Nagada III warfare: in the north there were probably centers for the importation of eastern Mediterranean trade goods, as well as copper producing centers, such as Maadi. Differential access to this trade and major sources of copper to the east led to conflict between Upper and Lower Egypt and the eventual conquest of the north by the ruling southern power(s).

Through territorial expansion by conquest and confederation, Upper Egypt extended its control over Lower Egypt, which together made a natural limit to the territory that could be centrally ruled by one authority, and easily controlled by river navigation. The seemingly sudden appearance of a highly developed state at the beginning of Dynasty I did not occur in a vacuum. Although archeological evidence to demonstrate the complete process by which this state developed is as yet lacking, the institutions for the organization of the state must have become fairly well specialized in Upper Egyptian centers in late Predynastic times.

With the gradual conquest of Lower Egypt by a confederated state in Upper Egypt, a shift of power to the north is seen, possibly due to the north's proximity to the Sinai and Western Asia, and the important trade in materials from these regions. The large palace-facade tombs of Dynasty I officials at Sakkara and the founding of the capital at Memphis are followed by the royal tombs there of Dynasty 2. The final eclipse of

Upper Egyptian power, which had evolved in its centers of Predynastic culture, can be seen with the construction of the pyramids of Dynasties 3-6 at Sakkara and Giza.

Unfortunately, most of our evidence for Predynastic as well as dynastic Egypt is from cemeteries, which gives a limited perspective of the society. More excavation of Predynastic settlements and regional surveys, such as Hassan has done at Nagada and Hoffman is doing at Hierakonpolis, are needed. Such settlements were either overlooked or poorly excavated by earlier archeologists. Settlement archeology would enrich our understanding of the rise of complex society in Egypt, and the social and economic relationships of the few central places with the mainly rural farming society. In addition, survey work for Predynastic sites needs to be done in Middle Egypt, and, although traces of Predynastic culture are probably now lost in the Cairo area, the Fayum and the fringes of the Delta might still offer evidence of Predynastic culture. Finally, studies that determine patterns of regional and long-distance trade and exchange in pottery and other craft goods, as well as centers of manufacture and sources of materials for these goods, would also increase our understanding of community relations and interactions in the linear geography of Predynastic sites. Such studies would help to substantiate or refute the hypotheses I have generated here: in other words, we need to get new information from new data in addition to trying to squeeze results from old and poorly collected data.