

THE COMPARATIVE ARCHAEOLOGY OF UPPER EGYPT
TO THE UNIFICATION

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To Frances

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ABBREVIATIONS

- Amrah Randall-MacIver, D. and A. C. Mace 1902 El Amrah and Abydos (1899-1901). London: Bernard Quaritch.
- A. S. A. E. Service des Antiquites de l'Egypte. Annales. Cairo. Vol. 1- . 1900- .
- Bad. Brunton, Guy and G. Caton-Thompson 1928, The Badarian Civilization. London.
- D.A.I.A.K. Deutsches Archaeologisches Institut. Mitteilungen. Abteilung, Kairo.
- I. E. J. Israel Exploration Journal (Varia). Jerusalem. Vol. 1- . 1950- .
- J. E. A. Journal of Egyptian Archaeology. London. Vol. 1- . 1914- .
- J. N. E. S. Journal of Near Eastern Studies. continuing The American Journal of Semitic Languages and Literatures, Vols. I-XI, 1884-1895, Vols. XII-LVIII, 1895-1941. Chicago: University of Chicago, Oriental Institute.
- J. R. A. I. Journal of the Royal Anthropological Institute of Great Britain and Ireland. London.
- Naqada Petrie, W. M. F. and J. E. Quibell, 1896, Naqada and Ballas. Egypt Exploration Fund Publication No. 1. London: Bernard Quaritch.
- Z. A. S. Zeitschrift fur Aegyptische Sprache und Altertumskunde. Vol. 1- . 1863- .

INTRODUCTION

I. Scope and Objectives

The broad purpose of the study is to carry out an archaeological review of the Chalcolithic horizons of Upper Egypt in the light of modern research in the 1950's and 1960's. These horizons, taken together, form the period of Egyptian prehistory known as the Predynastic. Upper Egypt is defined as that portion of the Nile Valley from Aswan, at the First Cataract, northward to Asiyut (map 1). Only the cultures of the Valley are involved. Differing cultures occupied the Western Desert; the mountainous Eastern Regions were virtually uninhabited. The Predynastic period ended about 3200 B.C. and may have begun as much as a thousand years earlier.

Our understanding of the Predynastic period is hampered by the lack of a reliable radiocarbon chronology. The few dates that are known are given at the end of this chapter. The samples from which these dates were derived had lain exposed to the smog-laden atmosphere of London for 50 years. Some authors have taken this to mean that the specimens were contaminated and that physicists cannot compensate for the presence of modern carbon in the samples (Arkell and Ucko, 1965: 152a).

Ongoing research over the last four decades has led to changes in the conception of the Predynastic period from the time when the individual site reports were written. Since the publication of the early reports, the Predynastic period has been a neglected area of Egyptology. Only in

the last ten years have modern techniques, which were developed during the Nubia salvage archaeology projects, been applied to the earliest periods of Egyptian prehistory. Much of this work is ongoing and is not yet published. The other types of studies that have gone on in the intervening years have been restudies based upon the site reports and other materials. The present investigation is a synthesis of the early sources, taking into account the new insights into predynastic cultural developments yielded by the work of such scholars as Baumgartel (1955, 1960) and Kaiser (1956,1957). Thus, the present study is a bridge between the work done in the last two decades and the work in progress. The present synthesis is a summary of the strengths and weaknesses of the archaeological work that has been done in Upper Egypt as a body of source material.

II. Changing Views of the Predynastic Period

Earliest Work

The predynastic sites of Upper Egypt were excavated between 1896 and 1938 by the British School of Archaeology in Egypt at a time when scientific archaeology was still in its infancy. The outstanding figure connected with these excavations is Sir William Matthiew Flinders Petrie (1853-1942) who invented a relative dating scheme called Sequence Dating, the forerunner of modern statistical seriation. It is unfortunate that the original excavators were forced to be speedy and exhaustive in their investigations in order to keep ahead of the local inhabitants who were plundering the sites in search of artifacts which could be sold to

tourists and to local antiquarians. At Naqada, for example, few of the 3000 burials in the cemetery were untouched.

When the predynastic sites were excavated, absolute dating methods had not yet been developed and consequently typological seriation was the major tool of archaeological investigation. The early image of the predynastic period as built by Petrie and later workers was of a succession of culture periods (Tasian, Badarian, Amratian, Gerzean, and Semainean).

Mid-century Work

In the 1940's, typological re-studies assimilated the Tasian culture into the Badarian, and the Semainean into the Gerzean (Kantor, 1944). At the same time there was a revival of Petrie's terminology replacing the Amratian and Gerzean horizons, respectively, with "Naqada I" and "Naqada II". This terminology was based upon Petrie's demonstration of the typological development occurring in the 3000-grave cemetery at Naqada.

The work of Werner Kaiser in the 1950's has taken this idea a step farther. Kaiser has argued that Naqada was the centre for the artifact types associated with the predynastic period (exclusive of the Badarian horizon)(1956,1957). Kaiser had disputed on stratigraphic grounds the rigid sequence of the predynastic culture as shown by the single stratified site for the period.

Thus, the mid-century trend in predynastic research was toward seeing the predynastic Chalcolithic horizons as being partly contemporary in their own districts. The present study has followed up this line of thinking by a rigorous archaeological analysis of the artifacts. It is

the conclusion expressed below that the amount of chronological overlap may have been much greater than was previously suspected although the actual length of time cannot be known in the absence of absolute dates for the entire occupation of the predynastic sites.

Ongoing Research

It was soon observed in the course of preparing this study that the traditional published reports are totally inadequate to support the requirements of modern archaeology which is using quantitative metrical and chemical analyses. The inescapable conclusion is that the application of modern techniques in Egyptology must be based upon new original research without expecting help from previously published reports. The corollary of the last statement is that an exhaustive re-study of the archaeological and physical anthropological material for the predynastic period is urgently needed. Happily, Upper Egypt is presently the scene of several long-range programs devoted to the application of a variety of inter-disciplinary research tools, pioneered by participants in the Nubia salvage archaeology projects.

The Nubian studies have revolutionized our knowledge of Nile Valley prehistory and they are not without relevance to the developmental sequence of Upper Egypt as well, superceding as they do the vast majority of all earlier work in this region. Bruce Trigger's study (1965) has added a vast amount of new information to what is known of the history and settlement distribution of lower Nubia. Fred Wendorf's report (The Prehistory of Nubia, 1968) has uncovered weaknesses and errors in the

publications of such earlier authors as Gertrude Caton-Thompson, E. W. Gardner and A. J. Arkell, who have been the unchallenged authorities on the Paleolithic of southern Egypt and the Sudan. Currently Wendorf is engaged in the preliminary survey for a long-range plan which will see the eventual re-study of the entire Nile Valley from Aswan to the Mediterranean (Wendorf et al. 1970: 1162). In Wendorf (1968) the monumental Prehistoric Survey of Egypt and Western Asia by K. S. Sandford and W. J. Arkell (1930-1939) comes under attack as it has in the past (Caton-Thompson, 1946).

Among Wendorf's startling conclusions is evidence of ground grain being used as food in many Paleolithic sites along the Nile as early as 13,000 B.C. which is 4,000 years earlier than presently-known material from the Near East (Wendorf, 1968: 940f.; Wendorf et al. 1970: 1161e)! There is now available from Nubia a new and reliable series of C-14 dates ranging from 15,000 B.C. to 4,000 B.C. which is about the beginning of the predynastic period.

In view of what has been said in preceding paragraphs, it would be well to reassess the value of the present investigation, based as it is largely upon the earlier reports. At the outset it can be said that the detailed findings of Wendorf's work in Upper Egypt have not yet appeared in published form. Should the worst happen, it may become necessary here to revise statements made here; on the other hand, it is also likely that present conclusions will be substantiated by a more scientifically gathered body of data than the original reports were able to provide.

Second, Wendorf's published work to date has been concerned primarily with the Paleolithic, which lies outside the period under review in this study. His research has indicated that the Nile Valley was inhabited from at least 15,000 B.C. down to 4,000 B.C. when the predynastic communities appear. Further, the predynastic communities, he says, show a lithic tradition radically different from that of the immediately preceding Terminal Paleolithic people in this area (Wendorf et al. 1970: 1170d-e). He concludes that the predynastic inhabitants of Upper Egypt represented a new population from which dynastic Egyptian civilization emerged.

It will be shown in later chapters that the predynastic sequence was culturally homogenous up to the Unification and beyond into the Dynastic period. Thus there is no disharmony on this point between the results of the present study and those stated so far by Wendorf. Wendorf's evidence seems to indicate that there was not a continuous cultural development from Pleistocene to predynastic times, but that in fact the cultural discontinuity between the terminal Pleistocene and the Predynastic reveals the immigration into Upper Egypt of a new people with a radically different lithic technology. The continuity of predynastic development in situ earlier than the Badarian/Naqada I horizons cannot be demonstrated on the basis of the earlier reports. If Wendorf's work can prove that the predynastic people were immigrants, a major unsolved problem of predynastic research left open in the present study can be answered without upsetting other conclusions reached here. While the limitations of

the data are acknowledged as potential sources of error, this should not unduly prejudice the conventional artifact analyses which follow in later chapters.

The major contributions of the present study in relation to previous work are the conclusions (1) that the predynastic culture horizons (Badarian, Naqada I, Naqada II) were contemporary to a large degree, and (2) that from the Badarian horizon onward there is no evidence in the artifact record of Upper Egypt of a foreign invasion -- the so-called "Dynastic Race".

III. Methods and Approach

This introduction is designed to break down the purpose of the study into separate problems and to state those problems in terms of specific archaeological questions that can be dealt with in the text. It will be the function of the final chapter to take the answers to these questions and to reintegrate them with the general purpose of the study. To accomplish this, a survey of the known data will have to be made and it will be possible to assess the strengths and weaknesses of the conclusions arrived at on the basis of these sources. Gaps and unanswerable questions will indicate the direction of needed future research using modern data collection techniques. The following chapters have three objectives: to perform a rigorous analysis of the archaeological data using archaeological research methods, to synthesize the known data in a relevant and meaningful fashion for the formulation of hypotheses and to answer the questions set out below, all of which relate to the broad purpose of the study.

The predynastic period consists of three subperiods: Badarian, Naqada I and Naqada II. To accomplish an archaeological review of the predynastic period in the light of modern research, it has been necessary to study each of the subperiods separately and in depth. This has been done by asking a number of specific archaeological questions. Different problems exist for each subperiod and for this reason the research questions are not standardized.

The archaeological horizons of Upper Egypt in the predynastic period are, strictly speaking, Naqada I (Amratian) and Naqada II (Gerzean). Owing to an accident of history, a series of sites associated with a third chalcolithic horizon, the Badarian, were not discovered until after the term "predynastic" had come into popular usage in the literature to designate the artifact horizons associated with the type-sites of El Amrah and El Gerzeh. On the basis of artifact seriation and on the strength of the stratified site at Hemamieh, Badarian has traditionally been established as the predecessor of Naqada I.

The next most general question is whether the culture(s) of Upper Egypt developed in situ or whether there was an invasion of foreigners who imported the culture of the Dynastic Age (after 3200 B.C.). To answer this general question, many specific archaeological questions must be asked. By the principle of economy of hypotheses (Occam's razor), an in situ development will be acceptable as a hypothesis if it does not leave any of the archaeological questions unanswered.

The following questions constitute the guidelines of chronology,

subsistence and technology, population and social organization, and temporal/spatial relationships in terms of which the analysis will proceed and in terms of which the available data will be reviewed. These are not the only questions that could be asked, but are those which it was thought would best express the problem areas.

BADARIAN PERIOD

Cultural Questions	Corresponding Archaeological Questions	Research Techniques	Nature & Quality of Available Data
Were they a distinct cultural entity?	1) What are the distinct Badarian traits/types? 2) What is their distribution in space (sites)?	-trait analysis, typology -site survey	-published excavation reports: verbal & photo. Good quality descriptions available.
When did they live?	3) When did they live (in absolute years)? 4) When did they live relative to the other predynastic cultures?	-C-14 dating	-Organic samples collected 50 years ago. By now quite likely contaminated.
What are the similarities/ dissimilarities between the Badarians and the other predynastic inhabitants of U. Egypt?	5) Define the nature of the Badarian assemblages. How do they compare/contrast with Naqada I and Naqada II? 6) How do the Badarians compare/contrast on the basis of skeletal structure?	-comparative typology -seriation -analysis of artifacts -analysis of assemblages -analysis of skeletal material	-published data & descriptions. -craniological studies. Carried out 25 years ago or more. No recent work in this field. Conclusions generally accepted.
Did the Badarians invade Upper Egypt? Were they themselves replaced by foreign invaders?	7) Is the Badarian artifact sequence continuous, or are there gaps & sudden typological changes from which invasion (s) can be inferred? 8) What is the archaeological nature of the transition at the end of the Badarian period? (abrupt, gradual, slow diffusion)	-seriation, relative chronology, typological analysis -comparative typology, stratigraphy, seriation	-Two sources: Brunton 1928, 1937. Complete & sufficient for this type of analysis. Literature lacking in comparative typologies from other regions in- & outside Nile Valley.
What was the technological basis of Badarian society? What subsistence/other activities were carried on?	9) Were cereal crops grown? What other plant materials were grown/collected? What was the composition of their diet? Were domesticated livestock kept? etc. 10) What was the state of their development <u>re</u> technology? (ceramics, stone working, metal)	-botanical identification of seeds, plant fibres, bones, etc -artifact type analysis -manufacturing mode analysis	-Published results generally accurate to the genus level and in some cases to the species level. Preservation imperfect.
What can be inferred about population size and social organization?	11) If the site were a village what would be the number of inhabitants per dwelling? 12) Is there a difference in the quality of grave goods & burials to indicate special individuals or a stratified society?	-population and settlement analysis as per techniques developed in New World studies -analysis of artifacts, typology	-Badari site is a cemetery site as are most of the known predynastic sites. Therefore, no estimates of population numbers or population density can be calculated. -Good data supplied by Brunton & Caton-thompson. Burials undifferentiated.

NAQADA I PERIOD

Cultural Questions	Corresponding Archaeological Questions	Research Techniques	Nature & Quality of Available Data
How does Naqada I differ from Badarian?	13) What are the traits/types of the Naqada I assemblages? 14) In terms of what traits/types do the assemblages of the two horizons compare/contrast? 15) How significant are the parallels/breaks?	-trait analysis, typology	-published site reports. Fairly thorough but excavators were not asking the kinds of questions archaeologists would like to have answered today.
Are there separate Naqada I and Amratian cultures?	16) What is the archaeological history of each region? Does each harbour local traditions & technologies? 17) Can specific localized industries be associated with El Amrah and/or Naqada?	-site survey, analysis of assemblages, comparison of artifacts & industries as well as trade routes -analysis of types, materials and modes of manufacture	-recent work by Kaiser on the Naqada cultures, but based on the original reports and on Sequence Dating
Did Naqada I originate <u>in situ</u> or as foreign incursions?	18) Can White on Red pottery, the hallmark of Naqada I be explained as a local development, or is there evidence that it was imported through trade or invasions? Other types also? 19) Is there any evidence that grain was being exported from the Thebaid region at this time? 20) In terms of traits and artifact frequencies, what can be said about the relationships between the El Amrah and Naqada regions? 21) What continuity/discontinuity exists between the Naqada I assemblages and the assemblages associated with Naqada II? 22) Can the Naqada I sequence be aligned with the Badarian & Naqada II sequences in terms of absolute years &/or relative chronology?	-seriation, comparative typology and trait analysis -? Identification of huge granaries/silos -comparison of assemblages, trade routes and advantages of connections, comparative typology -typological analysis, -seriation -Sequence Dating -C-14 dating -comparative stratigraphy -Sequence Dating	-good artifact evidence for believing that El Amrah was the centre of a sophisticated stoneworking technology while the Thebaid sites were engaged in the gold trade (negative evidence for the latter only). -no archaeological evidence. Problem is that the predynastic predates the development of writing. Therefore, no records to be found. No hints in drawings or reliefs -data in raw form not too extensive in the reports -fairly extensive data available here. Hampered again by the lack of absolute dates -existing dates from unreliable material -only one stratified site exists (Hemamieh) -susceptible to distortions of telescoping and elongation of time in the absence of absolute dates and stratified sites

XVII

NAQADA II PERIOD

Cultural Questions	Corresponding Archaeological Questions	Research Techniques	Nature & Quality of Available Data
<p>Is the culture period known as Naqada II the product of a different people from the producers of the Naqada I artifacts?</p>	<p>23) What are the distinctive traits/types of the Naqada II period? Are Naqada I continuities present to a significant degree?</p> <p>24) What are the differences and are these sufficient to warrant the belief that Naqada II was a separate culture possibly of foreign origin?</p> <p>25) Can the hypothesis be defended that Naqada II represents the natural <u>in situ</u> evolution of Naqada I, the "foreign" traits being attributable not to a foreign invasion but to a veneer of foreign artifact types acquired through international trade?</p> <p>26) Can absolute dates be obtained for the beginning and end of each of the three major traditional predynastic cultural horizons?</p> <p>27) Can indigenous/foreign origins be demonstrated for the major Naqada II types?</p>	<p>-seriation, trait analysis, typology</p> <p>-site survey, distribution study, typology, stratigraphy</p> <p>--</p> <p>-C-14</p> <p>-seriation, comparative stratigraphy, trait analysis & developmental studies of artifact types</p>	<p>-site reports. Material good</p> <p>-ultimate sources are written and photographic descriptions in the reports along with line drawings. Varying quality here.</p> <p>-Present specimens of organic material quite probably contaminated. Accurate C-14 dating awaits the discovery of new sites and fresh samples, or the development of some other technique.</p> <p>-help here from studies of areas outside Egypt. Important issue is to look at <u>what kinds</u> of foreign traits/types are present in Naqada II assemblages. The assumption to be made is that a foreign invasion or immigration would influence burials and crosscut all classes of artifacts, not being limited to the technological areas like ceramics and stone chipping only.</p>

Sources of data

Wherever possible, study was conducted from primary sources and from the raw data contained therein. By primary sources is meant excavation reports and/or the official publication which is the permanent record of a site. Secondary sources, review articles and commentaries have been consulted only after examination of and work with the data in the reports. This use of secondary material has served to define more clearly the conclusions and positions taken here in relation to the positions taken by others.

Information of a technical sort pertaining to the techniques of manufacturing and firing of pottery was supplied on many occasions by staff members of the Faculty of Fine Arts of the University of Manitoba. "Practical experience" with Egyptian artifacts was gained during a brief visit to the Royal Ontario Museum and through the cataloguing and writing-up of a 126-piece collection of miscellaneous Egyptian pottery which is residing in the Laboratory of Anthropology, University of Winnipeg.

Since the research for the present study was carried out from published sources, numbers provided in the literature provide the basis for calculations. Where these are made, references are cited. For the most part, the operations were simple statistical techniques related to seriation involving the concepts of mean, mode and median.

In the analysis and synthesis to follow, the data have been arranged by artifact classes and an attempt has been made to pursue the chosen artifact classes through the culture horizons for which information is available. The five classes of artifacts to be dealt with are:

Burials, Pottery, Ground Stone, Chipped Stone and Carved Ivory. Ground Stone will be broken down into artifact types such as stone vases and ground slate palettes. Ground celts are extremely rare in Upper Egypt. Celts are characteristic of a true Neolithic period, but it has been said that no true Neolithic sites have been found in Egypt, north or south. The absence of a Neolithic period may be nothing more than semantic hair-splitting since the Badarians were settled in villages and grew grain.

The suggestion will be advanced that, because grinding is limited to certain artifact types only, ground artifacts may be one indication of contemporaneity between the major culture periods. Chipped Stone, as a class, may also be subdivided into types for the purpose of comparing regional industries as well as for comparing finished artifacts re use. Although the three horizons are called Chalcolithic (because copper was used along with stone for tools), copper is rare and the existing specimens could all be trade goods. If this is true, then the Badarian, Naqada I and Naqada II might have been Late Neolithic societies possessing a veneer of copper implements. It is interesting that there is no evidence that copper was smelted locally during the predynastic period, and the artifacts are mostly loop-headed pins and rolled-strip beads.

Limitations of the Data

Relative-dating (seriation) is liable to two types of distortion, temporal foreshortening (telescoping) and its opposite, elongation of time. By itself, an artifact sequence may be several hundred to several

thousand years long. Within a long seriation, such as the one Petrie obtained for the entire predynastic period, there is no guarantee that equal segments of the series represent equal periods of time. At one point in a long seriation, telescoping may be in effect, while at another, elongation may be operating to produce incorrect conclusions. This is a criticism of Petrie's Sequence Dating system which divides the Naqada I/Naqada II seriation into 50 equal portions numbered consecutively from 30 to 80. However, the order is taken to be correct. Since the literature is keyed to Sequence Dates, and to deviate from the scheme would involve re-classifying materials that have been scattered to museums around the world, the present study follows Petrie's system with an awareness of its pitfalls.

The limitations of the data, potentially could give rise to the following sources of error:

- (1) error introduced by working from primary sources which are themselves at one analytical degree removed from the artifacts.
- (2) error through reliance upon the unequal quality of photographs and written descriptions of artifacts for taxonomic and comparative purposes.
- (3) error resulting from the virtual absence of absolute dates and due to the fact that only one stratified site has been discovered for the predynastic period, i.e., errors from using relative dating methods: telescoping and elongation.

IV. Presentation

The next three chapters summarize the materials from the Badarian, Naqada I and Naqada II cultures. The format of each chapter follows a

common pattern of presenting the material from the various artifact classes mentioned above. This format is modified from that used in Perkins (1949) and in McCown (1942).

Chapter IV reviews the literature on the physical anthropology of the predynastic inhabitants of Upper Egypt. Here the significant contribution of modern research is the method of multiple discriminant analysis which is just beginning to be applied (Crichton, 1966).

Because trade figures prominently in Chapter III as a mechanism for explaining certain types of change in an artifact record without having recourse to foreign invasions, Chapter V looks at the work of Colin Renfrew with trade, and at quantitative methods in archaeology. Also discussed in Chapter V are technology and natural resources as motives for engaging in trade relationships. A collection of maps shows the correlations between the distribution of natural resources, trade routes and settlement patterns.

The predynastic settlement pattern of Upper Egypt is first shown undifferentiated (map 5), then major religious centres are given (map 6) and finally, centres of political importance (map 7). Such a presentation of settlement is intended to correlate the physical resource distribution and trade routes with sites dedicated to functions which are paramount to the persistence of any society as a viable social system (Ch.V).

Also included is the most recent statement on the validity of reconstructing kinship from archaeological data (Allen and Richardson, 1971). This is a line of modern research following from James Deetz' attempts to recreate female residence patterns from styles of ceramic motifs.

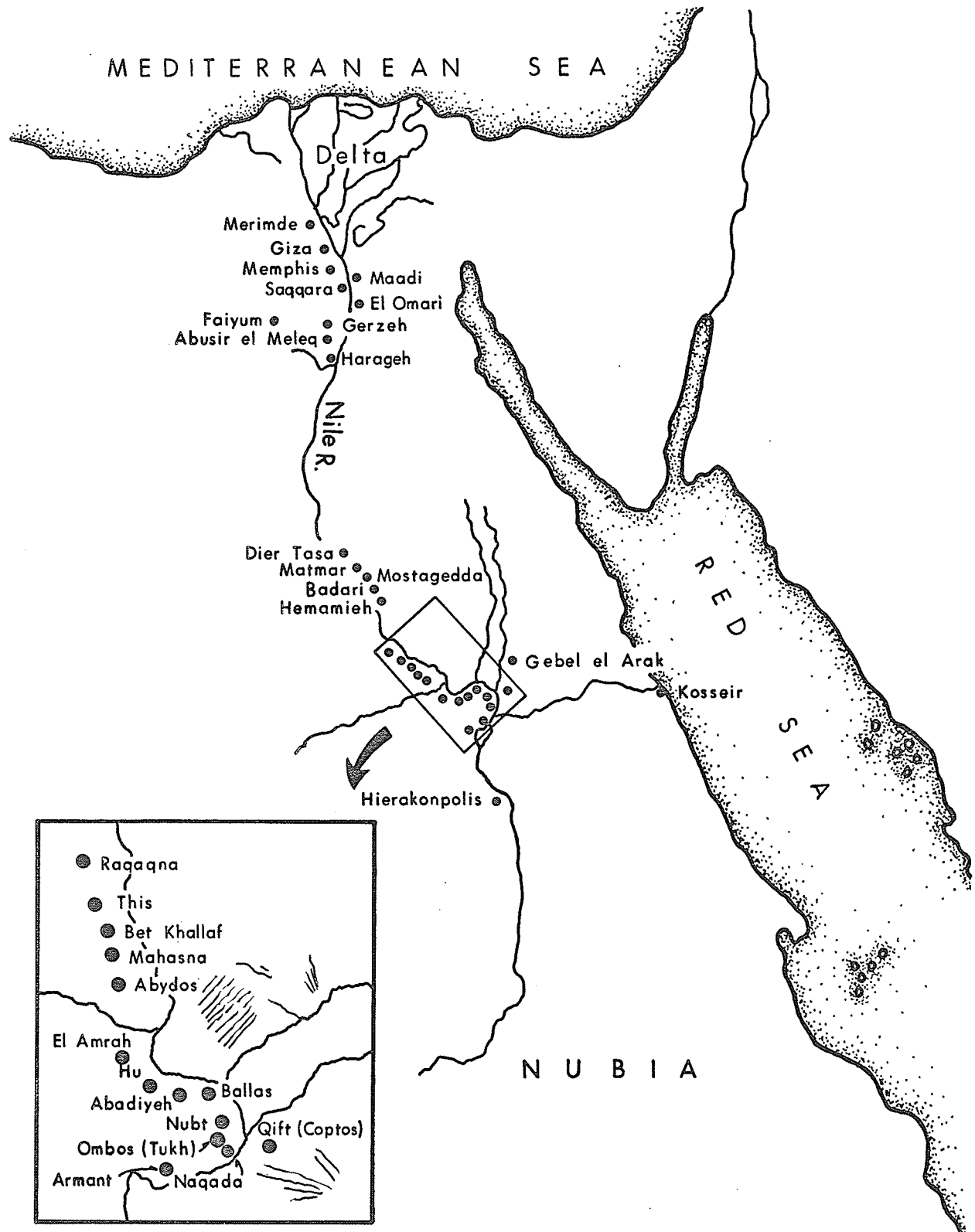
Chapter VI brings together conclusions arrived at in the preceding chapters and to synthesize those conclusions into a unified picture of the predynastic period. This new picture differs from the one showing the predynastic as a series of successive culture periods. The new model is based upon findings that these culture periods were partly contemporary and it emphasizes the behavior of the inhabitants as members of interacting social systems between which there was a differential movement of cultural material in the form of artifacts and trade goods.

V. Radiocarbon Chronology

Listed below are C-14 dates for the Naqada I and Naqada II horizons. The body of the statements comes from Libby (1955: 77-79). The numbers in brackets are revised estimates of the original tests based on a new half-life for the carbon isotopes (Kantor 1965: 5). The dates given are too few to be reliable and the samples were quite likely contaminated (Arkell and Ucko, 1965: 152a).

- C-810 *Nagada (Predynastic Hair I)*: Human hair weighing about 3 ounces, found in a cemetery at Nagada in southern Egypt in 1896. This material belongs to Predynastic Egypt, that is, is older than about 5000 years. The British archeologist W. Flinders Petrie constructed a scheme of what he called "Sequence Dates," on the basis of changing pottery styles, dividing the Predynastic period of Egypt into eighty Sequence Dates. This sample consisted about half of material from Grave 1592 with a Sequence Date of 34; one-quarter from Grave 1487 with a Sequence Date of 38; and the rest from Graves 1562 (Sequence Date 35) and 1816 (Sequence Date 35). Submitted by Miss Margaret Armit, Department of Archaeology and Ethnology, Cambridge University, England. 5744 ± 300 (3794 ± 300)
- C-811 *Nagada (Predynastic Hair II)*: Human hair weighing about $\frac{2}{3}$ ounce found in a cemetery at Nagada in southern Egypt in 1896. This material belongs to Predynastic Egypt, and it is older than about 5000 years. The British archeologist W. Flinders Petrie constructed a scheme of what he called "Sequence Dates" on the basis of changing pottery styles, dividing the Predynastic period into eighty Sequence Dates. About one-third of this sample consisted of material from Grave 1401 (Sequence Date 42), one-third from Grave 1863 (Sequence Date 46), one-third from Grave 1410 (Sequence Dates 36-44), and a small amount ($\frac{1}{2}$ gram) from Grave 1729 (Sequence Date 40). These samples, as well as C-810, C-812, C-813, and C-814, all came from Petrie's excavations at Nagada. They were taken from the Flinders Petrie Collection at University College. Submitted by Margaret Armit. 5619 ± 280 (3669 ± 280)
- C-812 *Nagada II (Predynastic Hair III)*: Human hair and skin from Grave T.56, dated by Elise Baumgartel generally as "Nagada II." Weight 45.5 grams, including about 20 grams of human skin. Submitted by Margaret Armit. 5020 ± 290 (3070 ± 290)
- C-813 *Nagada II (Predynastic Hair IV)*: Twenty grams of hair from Grave 733 (Sequence Dates 58-67) and 5 grams of hair from Grave 1349 (Sequence Dates 58-67). Both portions were used. Submitted by Margaret Armit. 4720 ± 310 (2770 ± 310)
- C-814 *Nagada (Predynastic Skin)*: Human skin weighing about 2 ounces, found in a cemetery at Nagada in southern Egypt in 1896, as in the case of No. C-810. This material came from Grave 1609 (Sequence Dates 34-38). Submitted by Margaret Armit. 5577 ± 300 (3627 ± 300)

Map 1
 LOCATION OF SITES
 MENTIONED IN THE TEXT



CHAPTER I

THE BADARIAN PERIOD

The archaeological sequence to be described in this chapter is named for its type-site which occurs near the modern village of Badari in Upper Egypt. Other assemblages of Badarian artifact types have been found at nearby Hemamieh, at Deir Tasa and at Mostagedda. The model of archaeological integration to be used throughout this study permits a number of assemblages possessing artifact classes with types in common to be called a culture¹ and the sequence a culture period. The artifact types to be discussed below are: pottery, burials, flint implements, ornaments of carved ivory, tools, weapons and human figurines. The material from which the Badarian culture is to be reconstructed comes from the following sites:

Badari: Cemetery site, 148 burials. Yielded grave goods, mostly pottery. A few copper beads and one copper pin were present (Brunton and Caton-Thompson, 1928).

Hemamieh: the 4-5½ foot levels. Stratified village site. Yielded pottery and a variety of lithic tools. Nine mud hut circles dated by associated materials to be transitional between late Badarian and Early Predynastic, Amratian, horizons. Upper levels contained White on Red and Red on Buff ceramics. No copper was present in the Badarian levels (Brunton and Caton-Thompson, 1928).

Deir Tasa: yielded pottery and flint implements (Brunton, 1937).

Mostagedda: same (Brunton, 1937).

Ballas: Predynastic cemetery site. Yielded a few rippled sherds (Petrie and Quibell, 1896).

Armant: Predynastic cemetery site. Some sherds were found which resembled Badarian pottery but were much thicker and coarser than the fine pottery which is the hallmark of the Badarian (Mond and Myers, 1937-1938).

POTTERY

Guy Brunton, who originally excavated the cemetery at Badari, in 1928 published a typology of the ceramics using colors as the basis of his categories². This typology has not been followed here. Instead, a slightly new typology has been set up because it has been observed that some of Brunton's types group artifacts under headings that are not always descriptive of the artifacts contained in those categories. To this extent, Brunton's typology is misleading and inconsistent with the principle on which his scheme was set up. From a comparison of Figure 1.1 and the structure of Brunton's typology (n. 2), it will be seen that the present difference of opinion centres on his "Fancy Forms" and Smooth Brown types. "Fancy Forms" as a label, is not descriptive and by implication may be actually misleading. Below, "Fancy Forms" has been reformulated, its artifacts being divided between Black and a new category, Yellow/Buff/Orange. Smooth Brown gives up some of its original members to this latter category, forming the new type: Black-topped Orange.

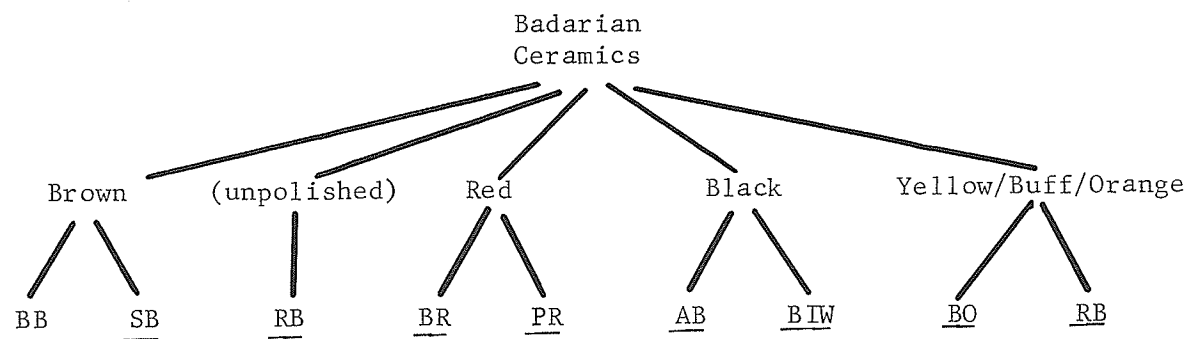


Figure 1.1 - Typology of Badarian Pottery

BADARI

The most common pottery forms recovered from the Badari graves are fairly small, round-bottomed pots and bowls. It is unlikely that what has been recovered represents more than a fraction of the Badarians' total ceramic inventory, since the pots and bowls are funerary items placed in the burials with the specific and limited purpose of containing nourishment for the deceased. The complete range of ceramic forms presumably still lies buried with the remains of the Badari settlement somewhere under the alluvium of modern Egypt. The sites for this period are mostly cemeteries and the reason is that Badarian cemeteries were located on desert spurs at the edge of the cultivation and above the level of the annual floods.

Badarian pottery is all hand-made; in no instance is there a central spiral to suggest that the vessel was made on a wheel. The potter's wheel does not seem to have been in use in Upper Egypt before the First Dynasty. In some cases Nile mud was used, in other cases a fine-textured clay was the raw material on which the Badarians exercised their skill. The most frequently occurring method of tempering was with grit. For the larger coarsely made cooking pots, chopped straw was mixed with the clay.

Black-topped Brown (BB), (Fig. 1.3, 1-15). This type is very distinctive and almost unknown elsewhere in Egypt with the exception of a few surface-gathered sherds from Hierakonpolis. The finest specimens of Badarian ceramic technology are found among the forms of this type. All are highly polished and have a broad band of blackening which extends down the sides

of the vessel from the mouth. Pots of the Black-topped Brown variety are coated with a slip that may vary from dark brown on some specimens to coffee-colored on others. The blackening was produced during the firing process when the pots were placed mouth downwards in a carbonizing substance (the ashes) which reacted chemically with the slip to form black iron peroxide. Black-topped pottery carries over into the Naqada I horizon at which time the black band begins to get narrower until, in the Naqada II period, it disappears altogether. The finding of black-topped vessels along with vessels without this trait shows that acquiring the black band around the mouth was not an inevitable part of the firing process. Either the black band was retained deliberately for aesthetic reasons, or the vessels so discolored were destined for common usage. Badarian black-topped forms are invariably black on the inside regardless of their outer coloration.

The most outstanding trait of Badarian pottery is the extremely thin walls of the containers. This reflects the skill with which pots could be made and fired without collapsing. In this regard, the quality of workmanship was never equalled in any subsequent period of Egyptian history (Bad. p. 21d).

Combing and Rippling. A distinctive trait of the best specimens of Badarian ceramics is the rippled texture given to the outer surface before firing. The effect was produced by combing the wet clay with the finely serrated backbone of a fish. The pot was then burnished over the combing. The net result was a wavy, or rippled, surface. Of the BB

forms shown in Figure 1.3, pots 1-5, 8-11 and 13 are rippled in this way. Pots 1-5 are examples of the technique in its most perfect form; all are dark brown and aesthetically pleasing in appearance. They are almost black with the only visible brown being on the bottom where they were exposed to the air inside the kiln during firing. BB 3 is rippled spirally from a whorl in the centre of the base.

Combing and rippling are most prevalent among ceramic forms of the black-topped varieties, and among BB in particular. It has been used also on Black-topped Red (Fig. 1.3, 16-20), on Polished Red (Fig. 1.4, 22,23), on Smooth Brown (Fig. 1.4, 26: rim combed, 29: no combing but burnished vertically, 30: lip combed) and on All Black (Fig. 1.4, 34: rim combed, 36: rippled). Combing and rippling are most frequent on the dark browns and are less frequent on the reds. Although black-topped types survived into the next culture period, Naqada I, rippling is a particularly Badarian trait and combing is also. The significance of these traits is their usefulness in distinguishing Badarian ceramics sharply in both time and space. This fact will be adverted to below in the section on the seriation of Badarian pottery types.

Black-topped Red (BR), (Fig. 1.3, 16-20). Ceramics of this type are a bright red or brown-red with a narrower black band generally than the BB variety. Black-topped Reds from the Badarian horizon contrast with pre-dynastic black-topped reds in that the latter have a distinct lighter plum-red coloration. The plum-red of Naqada I and early Naqada II is the result of a different firing process involving a chemically different

wash, a higher cone temperature and a different oxidizing atmosphere surrounding the pots inside the kiln.

As a general rule it may be said that Badarian Black-topped Browns are never decorated in any other manner than with combing and rippling. One exception exists in which a burnished pattern is found inside a BB vessel: Fig. 1.6, 1 occurs inside BB 5. On the other hand it is not uncommon for Black-topped Red bowls to have linear patterns of burnishing on their inner surfaces (Fig. 1.6, 2-7; 1.6, 2 occurs on the inside of BR 16). These patterns are found in shallow open bowls of the BR 16 form³.

Black-topped Reds are mostly small, round-bottomed pots. Deep bag-shaped containers also occur, but less frequently (BR 20). Specimens of BR from Hemamieh provide new shapes that are not found at Badari.

Polished Red (PR), (Fig. 1.4, 21-25). In the Badarian assemblage this is a very small class consisting of large flat bowls and a few round-bottomed pots. Evidence from the El Amrah and Armant cemeteries show that this type of pottery increases in frequency until it peaks in the Naqada II period (see Figs. 3.1-3.3 infra). Two lines of thought are thus introduced by its appearance in the Badarian seriation: either there was a long and slow development of this ceramic type or it diffused to the Badari district from some centre further to the south. In the next chapter, data will be introduced which is compatible with the hypothesis that the Badarian culture could have been contemporary with all of Naqada I.

Polished Red forms 21, 22, 23 differ in shape from BB 10 and BR 16 by their sides that angle inwards. These so-called carinated (keeled) bowls are also distinctively Badarian inventions and may have originated from prototypes like BB 8 and 9.

A dark red slip is what distinguishes Polished Red vessels from the type known as Smooth Brown which will be discussed in the next section. Sometimes the slip has been applied over a brown undercoating (PR 22, 24, 25). Individual variations exist in the amount of slip as well as in the amount of burnishing that a vessel has received. The slip contains haematite, a ferric compound which gives the finished pot its red color when the slip is allowed to oxidize during firing. Analytically, a wash of this type may be distinguished from a slip in the following manner. A wash consists of the pure haematite's being applied to the surface of the container. By removing a portion and placing in it hydrochloric acid, it may be observed that the wash will dissolve completely, whereas a slip consisting of a thin soup made of haematite and clay will leave a residue.

Rippling is very rarely found on specimens of PR (PR 22 has a faint ripple visible in places only, PR 23 is faintly rippled).

Smooth Brown (SB), (Fig. 1.4, 26-30). The distinction between Polished Red and Smooth Brown is not sharply defined on the basis of manufacturing modes (See: Rouse, 1960). Brunton calls forms of the SB type simply thicker and clumsier examples of the Black-topped Red and Polished Red types. This is because PR owe their color to a dark red slip over brown.

Without the red slip, PR become either BB or SB. SB pots in Brunton's taxonomy are a pale yellow-brown, varying from drab to orange. Where the artifacts are truly brown, the type-name of Smooth Brown has been retained. Where the color is markedly different, vessels have been placed in the new classification, Black-topped Orange.

The surface of Smooth Brown ware is highly burnished; rippling is absent although there are some instances of combing on the rim (SB 26, 30).

Black-topped Orange (BO). The previous remarks apply here. A color illustration of a pot of this type is given in Aldred, 1968: 26, Fig. 9, where the author calls it Black-topped Red.

Red on Buff/Orange (Rb), (Fig. 1.4, 31-33). In Brunton's taxonomy, this type and what I have called Black/Incised White (BIW) are lumped together in a residual category called "Fancy Forms" which gives no information about the characteristics of the artifacts. The present investigation maintains that the Rb specimens are of the utmost importance.

On Rb 31 and 32, stripes and lines have been painted in dark red slip on yellow-brown (31) and on buff orange (32). The outer surface of Rb 32 has been covered with a red slip. More slip has been added around the mouth to produce a dark red rim. The impression formed upon seeing Rb 32 for the first time was that here was a deliberate attempt to reproduce the traits of the black-topped varieties in another medium. Seriation (infra, Figs. 1.7, 1.8) has shown that reds generally and Red on Buff in particular are late in the Badarian sequence. The forms of Rb 31 and 32 are typical Badarian late forms which can be compared to PR 21

and SB 27 along with the remarks about PR 21-23.

Vessels showing any kind of painted designs do not occur in the Badarian horizon. Painted pottery does not appear in Upper Egypt before the White on Red pottery of Naqada I. The importance of the Red on Buff/Orange specimens found at Badari should not be overlooked, therefore. In the use of painting with the deliberate intention not to cover the entire surface of the vessel is found the first instance of a trait that will be greatly elaborated in the following predynastic periods. The technique of painting with red on a buff background finds its greatest expression in the decorated vases of the Naqada II (Gerzean) period, beginning with geometric shapes and imitations of colored stones and going on to depict hills, flamingoes, animals, boats and human beings. Thus, our first contact with this trait in the Badarian horizon is an important suggestion that the Badarian culture might have persisted until early Naqada II and might have been in a position to receive diffused traits from that culture.

All Black (AB), (Fig. 1.4, 34-39). This is a very small class, all the members of which have very thin walls. AB 34 is combed around the rim and AB 36 is rippled. AB 37 and 38 show the beginnings of a neck, but as in the case of all Badarian pottery, there is no trace of a lip. The shape of AB 39 is not greatly unlike that of PR 24 and 25, although AB 39 is unpolished, has handles and a well-formed base. Black burnished vessels of the shape of AB 38 have been identified by Kaplan (1959: 135-136) as having parallels in the Ghassul III of Palestine (Mallon et al. 1934: 99, Fig. 49) and are a characteristic of the Chalcolithic phase of Wadi Rabah (Kaplan 1958: 149-160). AB 39 (incorrectly cited in Kaplan 1959: 135 as

Bad. Plate XXVI, 8) is said to have parallels in the Ghassul IV phase (Mallon et al., op. cit. Pl. 51, 99) and from Gezer (Amiran, 1955, Pl. 34, B.). The Ghassul IV connection for AB 39 seems tenuous on the basis of available illustrations. The Badarian culture of Upper Egypt was a Chalcolithic society, i.e., they used copper as well as stone. It may be, therefore, that there were contacts between the Palestinian Chalcolithic cultures and those of Upper Egypt, and if the Badarian were to be proven to have been later than is now supposed, the contacts with the Ghassulian of Palestine might serve to explain the origins of Naqada II Wavy-Handled and Buff wares (infra, Chapter III). Handles as a trait do not appear on Badarian pottery and this of itself is suggestive of an outside origin for AB 39.

Black/Incised White (BIW), (Fig. 1.5, 40-41). The two artifacts of this type show an incised pattern filled with white on a burnished black ground. The form of BIW 40 is not a common shape in the Badari cemetery assemblage. Forms similar to BIW 40 have been reported from nearby Deir Tasa and from Mostagedda, however (Brunton, 1937). BIW 41 is only a fragment. The provenance of both BIW 40 and 41 is unknown.

Rough Brown (RB), (Fig. 1.5, 42-44). Vessels belonging to this type are large cooking pots, many of which are smoke-blackened on the outside. Generally they are coarse and poorly fired. Tempering is by means of chopped straw mixed in with the clay. Some RB pots have been coated with a red-brown wash. Also included in this type are some large containers⁴ of sun dried clay which were found covered over with a slab of limestone and used as subterranean granaries⁵.

HEMAMIEH

The Hemamieh village site complements the cemetery site at Badari from a typological point of view. Together the two sites enable a more complete picture of the Badarian culture to be put together. No copper was found at Hemamieh, whereas a few implements of copper were recovered from the cemetery. Judging the Badarian culture on the basis of the Hemamieh assemblage alone would give the incorrect impression that the Badarians used no copper whatsoever. There is no evidence that copper was smelted locally at this time and the few pieces that have been found may have been trade goods from Sinai or elsewhere (see Gardiner and Peet, 1952-1955).

The site of Hemamieh is located on a desert spur much like that on which the Badari cemetery is situated. The dimensions of the site are given as 40 x 50 yards by the excavator, Caton-Thompson (Bad. P. 69d). This is the only stratified site to be discovered which dates from the Badarian and early predynastic periods.

Stratification at Hemamieh. Details and a schematic profile of the site are given in Figure 1.2. The surface of the ground was covered with a layer of white limestone scree. Below this lay six feet of midden down to a thin layer of breccia (angular pieces of rock cemented by chemical action)⁶. Badarian combed and rippled sherds were found beneath the breccia layer and immediately above it. Judging from the number of sherds found beneath the breccia, in the years before the breccia became consolidated the spot was probably no more than a camp-site (Caton-Thompson: Bad. p. 73b).

In addition to the regular categories of Badarian pottery, Hemamieh yielded new types: White on Red, Wavy-Handled and Red on Buff⁷. The vital importance of the Hemamieh site is that it establishes the order of the Badarian sequence as being immediately prior to types characteristic of Naqada I (Amratian) and Naqada II ("Gerzean"). The stratification at Hemamieh showed that combed and rippled brown sherds were at the older end of the Badarian seriation, with the reds and non-combed/non-rippled being more recent. In the absence of the Hemamieh stratification, the pottery from the cemetery could still be seriated but the seriation alone would not reveal the earlier and later ends of the sequence.




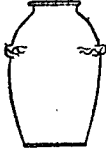

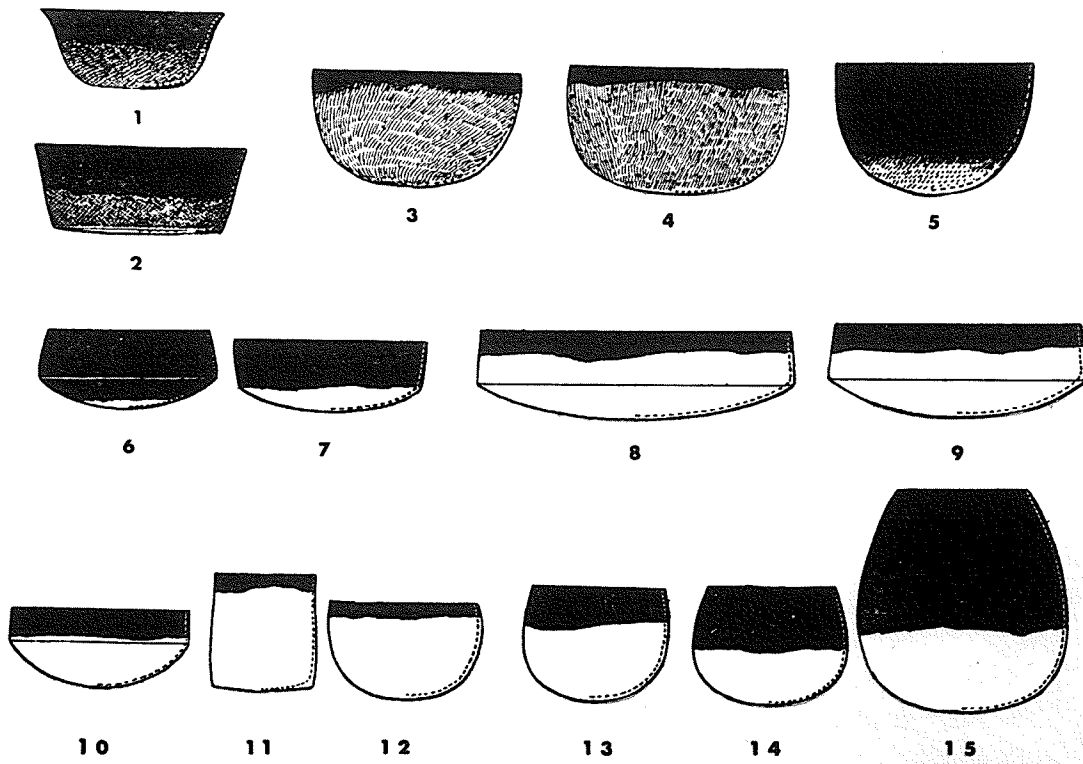
Site Profile	Rippled	Black-topped	Won R	WH	Rb	Lithic Industries	Culture Period
							
limestone scree	-	2	-	-	43 - 43	ripple-flaking grinding	Middle Predynastic
1 ft	0	3	0	3	16		
2 ft	1	19	2	5	7	flake blades knives end-scrapers	Early Predynastic
3 ft	45	42	2	-	1		
4 ft	73	14	1	-	-	core tools	Transitional
hut circles	46	6	-	-	-		
5 ft	106	15	-	-	-	core tools	Badarian
breccia layer	45	8	-	-	-		
virgin soil	36	3	-	-	-		

Fig. 1.2 Hemamieh

1. Bad. Pl. XII, 5D
2. Bad. Pl. XII, 5H
3. Bad. Pl. XIII, 41 K
4. Bad. Pl. XIII, 47 M
5. Bad. Pl. XIII, 49 F
6. Bad. Pl. XII, 19 P
7. Bad. Pl. XII, 12 F
8. Bad. Pl. XII, 19 C
9. Bad. Pl. XII, 19 H
10. Bad. Pl. XII, 16 J
11. Bad. Pl. XII, 35 K
12. Bad. Pl. XIII, 57 E
13. Bad. Pl. XIII, 64 M
14. Bad. Pl. XIII, 71 H
15. Bad. Pl. XIII, 77 K
16. Bad. Pl. XIV, 3 D
17. Bad. Pl. XIV, 21 M
18. Bad. Pl. XIV, 26 H
19. Bad. Pl. XV, 36 H
20. Bad. Pl. XIV, 10 F

Black-topped Brown (BB), 1 - 15.



Black-topped Red (BR), 16 - 20.

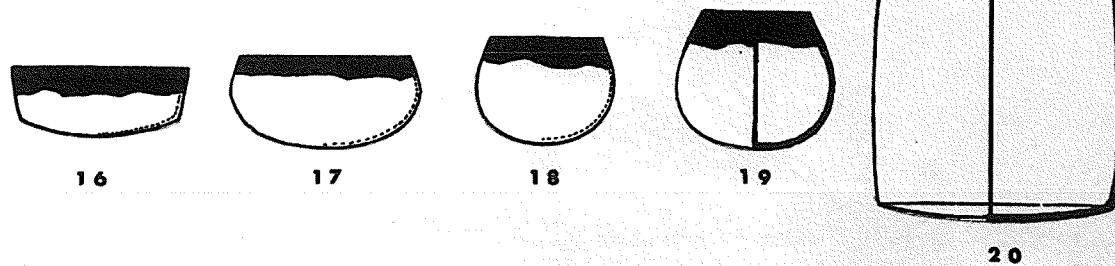
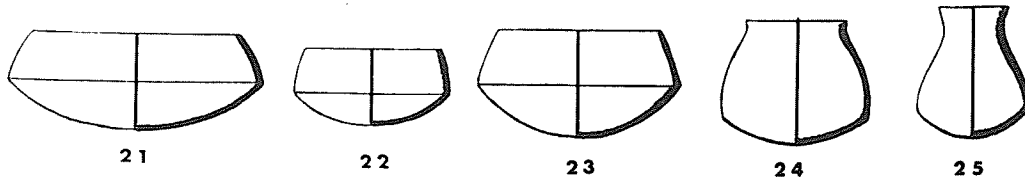


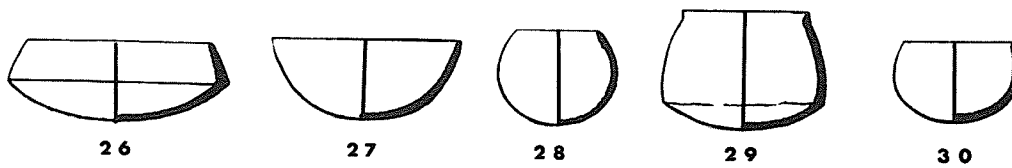
Fig.1.3 Badarian Pottery Forms. 1:6

21. Bad. P1. XV, 9 D
22. Bad. P1. XV, 9 J
23. Bad. P1. XV, 9 M
24. Bad. P1. XV, 27 H
25. Bad. P1. XV, 29 K
26. Bad. P1. XVII, 9 K
27. Bad. P1. XVII, 3 K
28. Bad. P1. XVII, 33 M
29. Bad. P1. XVII, 41 K
30. Bad. P1. XVII, 31 K
31. Bad. P1. XVI, 16
32. Bad. P1. XVI, 15
33. Bad. P1. XVI, 14
34. Bad. P1. XVI, AB2
35. Bad. P1. XVI, AB4
36. Bad. P1. XVI, AB7
37. Bad. P1. XVI, AB12
38. Bad. P1. XVI, AB9
39. Bad. P1. XVI, 8

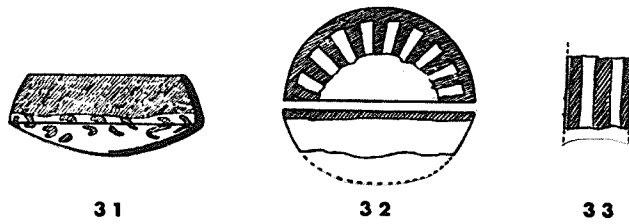
Polished Red (PR), 21-25.



Smooth Brown (SB), 26-30.



Red on Buff/Orange, Rb, 31-33.



All Black, AB, 34-39.

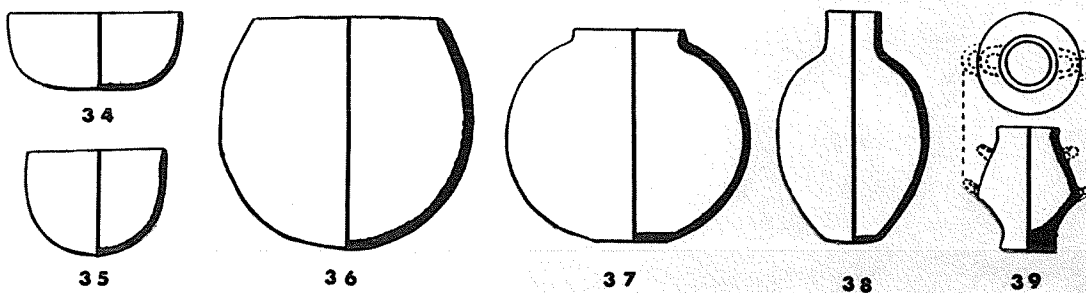
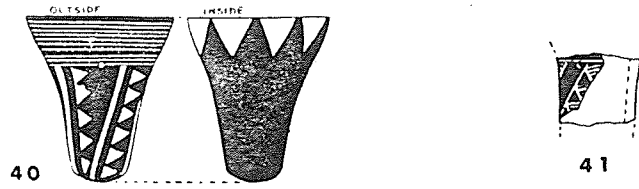


Fig. 1.4 Badarian Pottery Forms. Scale 1:6

40. Bad. Pl. XVI, 24
41. Bad. Pl. XVI, 25
42. Bad. Pl. XVIII, 27 E
43. Bad. Pl. XVIII, 31 E
44. Bad. Pl. XVIII, 31 H

1. Bad. Pl. XIII, 49 F
2. Bad. Pl. XIV, 3 D
3. Bad. Pl. XIV, 15 E
4. Bad. Pl. XIV, 15 H
5. Bad. Pl. XIV, 15 M
6. Bad. Pl. XIV, 15 P
7. Bad. Pl. XIV, 30 E

Black, Incised White (BIW), 40-41.



Rough Brown, RB, 42-44.

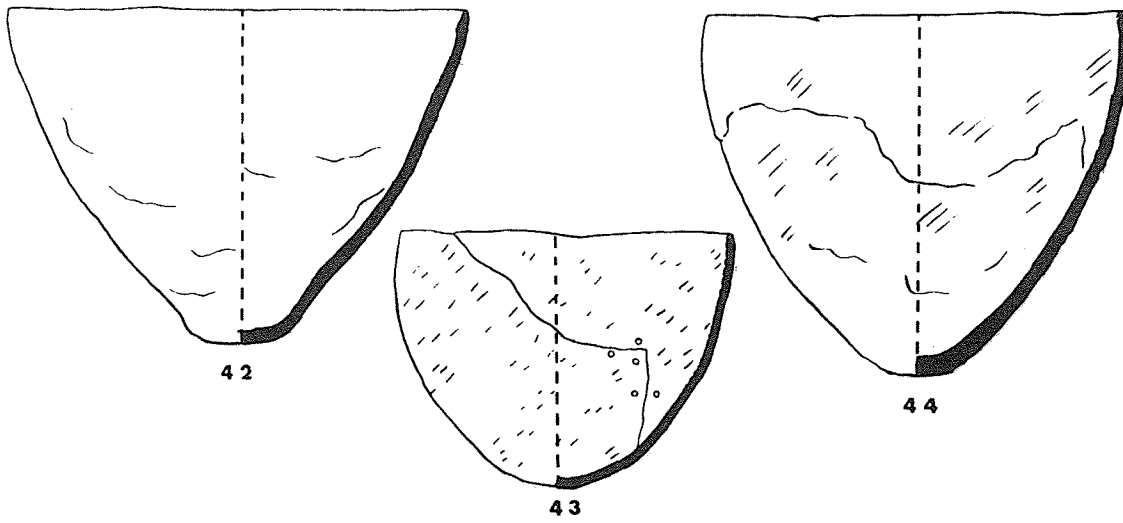


Fig. 1.5 Badarian Pottery Forms. Scale 1:6

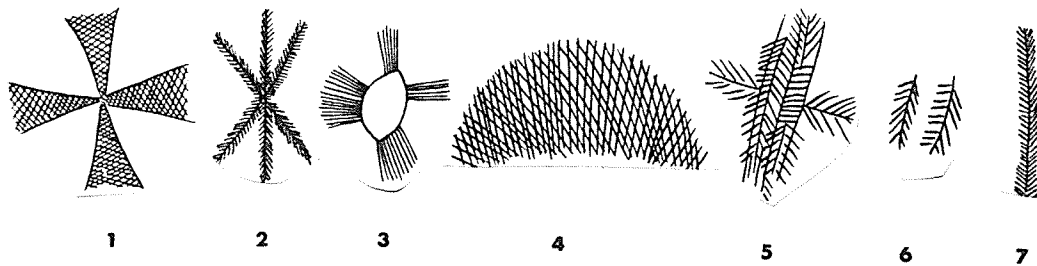


Fig. 1.6 Badarian Pottery Motifs. 1:6

BURIALS

Badari

The cemetery was located at the foot of the escarpment and to the east of the settlement (still undiscovered). The graves were dug in soft, sandy Upper Pleistocene gravels, a substance easily penetrated by the tools used by the people in this period. In shape the graves were roughly oval with the sides sloping slightly inwards.

Dimensions. Dimensions vary, the average grave being 53 inches long by 36-40 inches deep. Graves containing males, as a rule, are slightly larger in their overall measurements than graves containing females.

Posture. The bodies were wrapped in matting and were laid in a loosely contracted position with the thighs making an angle of approximately 60 degrees with the spine. Tightly contracted burials in which the knees are drawn up to the chin are rare.

Orientation. The general orientation of the deceased was with the head to the south (84% of 148 burials), although this was not always the case. Regardless of the direction of the head, the body was laid on its right or left side so that the face would invariably be looking toward the west. There appears to have been no difference in this regard whether the person was male or female.

Preservation. The bodies from the Badari graves are often well preserved due to the dessicating action of the hot sand. There are no signs of embalming, mummification or other artificial forms of preservation.

Single burials only. All of the 148 burials represent the inhumation of a single individual. No multiple burials occur and there is no evidence of special treatment for exceptional individuals.

No burials from Hemamieh. Being a village site, no burials are reported from Hemamieh. The Badarians always buried their dead in cemeteries or at least away from the inhabited area. No instances of floor burials have been reported. The Hemamieh cemetery is still somewhere beneath the alluvium.

ARCHITECTURE

Badari

No traces of the Badarians' architectural forms exist. The presence of matting suspended from poles in some of the graves gives clues at least to the materials that were in use, and houses were probably built of matting or sticks covered with mud.

Hemamieh

Nine mud hut-circles were found at Hemamieh well below the level of White on Red painted pottery. Dating the hut-circles by associated artifacts, Caton-Thompson ascribes the dwellings to the transitional period late Badarian/early Naqada I (see Fig. 1.2). It should be noted that this so-called transition zone may simply be the result of the excavating technique of digging in pre-selected arbitrary (six-inch) levels. Excavation by culture levels would eliminate the fuzziness that occurs in the interface regions between culture levels.

The huts were circular, averaging six feet in diameter. The walls varied between 1' and 1'3" in thickness and were about two feet in height. Marks in these low mud walls showed that bundles of reeds were probably used for the sides of the structure. Nothing more is known. Two of the circles were smaller than the others, and on the basis of animal dung's being found in them, Caton-Thompson has suggested their function was to act as storehouses for fuel.

STONE VASES

No stone vases have been found in association with Badarian remains either at Hemamieh or in the cemetery. Stone vases proliferate during the late Naqada I and Naqada II periods, but they are not found in the Badarian horizon.

CHIPPED STONE

Badari

Winged arrowheads. Badarian winged arrowheads closely resemble the concave-base points of the Faiyum Neolithic assemblages. Badarian winged forms are more squat and rounded. In the predynastic periods a longer and narrower form with straight wings came into use (see Baumgartel, 1960: Pl. I, 8,9). In the manufacture of arrowheads, percussion flaking was the technique used both in the Badarian and in the Naqada I periods.

Tanged arrowheads. This type does not occur at Badari but is commonplace in the Faiyum. One example has been found at Badari but its provenance is uncertain (Bad. Pl. XXIX, 5, 5400).

Saw-edged knives. These vary from just over two inches in length to seven inches. They are made from flakes and have a serrated edge that extends along one side only (Bad. Pl. XX, 16; Pl. XXVII, 2, 4; Pl. XXVI). Their function was in harvesting as specimens were found in association with husks of grain. The smaller artifacts of this type were probably hafted in a fashion similar to the flint-bladed sickles of the Faiyum Neolithic (Caton-Thompson and Gardner, 1926: Pl. XL, Fig. 2).

Adzes, Lance-heads. Adzes are rare and are made from loose pieces of nodular flint, some of which have part of the original cortex still in place. These are heavy scrapers probably used for fleshing hides since skins were the most popular material for clothing in the Badarian period. A few examples of lance-heads or daggers (?) capable of being hafted were found (Bad. Pl. XXVII, 3. Compare, ibid. Pl. XXVI). Lance-heads are also rare in the Badarian assemblages.

Flakes and cores. Cores and flakes are reported in relative abundance in the Badari graves. The excavator comments that all were found in the graves of males and none in the graves of females (Bad. p. 37d). Some prepared cores and flakes exhibiting varying degrees of retouch are the commonest types found at Badari. All make use of locally occurring nodular flint.

Hemamieh

By comparison with the sophisticated pressure-flaking techniques of Naqada II, Badarian flintwork is of a much cruder sort which may

indicate that the Badarians were relatively inexperienced workers in stone. This would be so if the Badarians had not long been living in sedentary villages with an agriculturally based economy. The Badarians' technological genius is shown in their fine thin-walled pottery. Pottery is a trait of sedentary life which argues against a recent giving up of a nomadic style of existence. As workers in stone, the Badarians were less adept. This fact probably explains the absence of stone vases in the Badarian assemblage. In later periods, stone vases were expensive items and most people had to settle for pottery imitation (infra. Chapter III).

The stratification at Hemamieh shows as a trend the movement away from the core industries of the Badarian period towards the perfection of techniques for grinding and retouching flakes. The typical Badarian tool is the heavy steep-ended scraper. At the threshold to the Naqada I sequence, the major transition is to a primarily flake technology.

TOOLS AND WEAPONS

Mace heads. No mace heads occur either in the graves at Badari or in the Badarian levels at Hemamieh. In the subsequent Early Dynastic period, the disc or flat-topped mace head was widely used although from the size of its shaft, the efficacy of the flat-topped mace as a weapon is in doubt. The disc headed mace seems to have been a major innovation of the Naqada I people with no prototypes in existence during the Badarian period.

Throwing-sticks. Three specimens of throwing-sticks are reported from Badari (Bad. Pl. XXIII, 29: Pl. XXIV, 1, 2). The artifacts in question

must be models or toys; one is only 7½ inches long. Throwing-sticks survived throughout the dynastic period as a device for hunting birds. Because the throwing-stick was made of wood, it would float and could be recovered easily in the papyrus marshes. Men armed with throwing-sticks (curved clubs?) appear on the Lion Hunt palette at the end of the pre-dynastic period. There is no evidence to warrant believing that the throwing-stick was used as a weapon of warfare by the Badarians. Recently Baumgartel has suggested that these sticks resemble devices held in the hands of figures depicted on the Red on Buff pottery of the Naqada II period. Her suggestion is that they are not throwing-sticks but castanets (Baumgartel, 1965: 13).

ORNAMENTS

Amulets. Amulets are small ornaments made in the shape of some animate or inanimate object. Amulets are very rare in the overall assemblage from Badari; only two were found in the 148 graves that were excavated. Both are of carved bone; the first is the head of an antelope (Bad. Pl. XXIV, 14), and the second is the head of a hippopotamus (Bad. Pl. XXIV, 15).

Beads. The categories of beads found in the burials at Badari, by materials, consist of stone, ivory, shell and copper. The most popular soft stone is steatite which can be cut and drilled with ease. Steatite beads occur in both glazed and unglazed forms. Those that are glazed are bluish-green in color and represent the earliest known instance of glass in the Nile Valley (Arkell and Ucko, 1965: 150b). The blue color may have had magical properties attached to it as was the case with amazonite and

lapis-lazuli in later times. The blue glazed steatite beads likely represent cheaper substitutes for these more costly materials. Beads made either of faience or of glazed frit are common in predynastic burials but are not found in the Badarian assemblages. Ivory cylinder beads and disc beads made from the nacreous shell of local freshwater bivalves do occur at Badari but in fewer numbers than the steatite variety.

Archaeologically, the most significant beads discovered at Badari are the ones made of copper. These consist of a tiny rolled strip of copper 1/8 inch wide. Quite likely the metal was imported and only chemical analysis can settle the matter. For continuity, the only other artifact of copper will be described here as well. This is a straight copper pin three inches long (Bad. Pl. XXVI, from grave 5112). In predynastic period graves, copper pins with rolled heads have occasionally been recovered, but throughout the predynastic period copper is scarce. It was not until state-sponsored mining expeditions to the Sinai began in the First Dynasty that a steady flow of copper began to flow into Egypt on a sizeable scale.

Clothing. From garments found upon the dead it must be inferred that the same sorts of clothing were worn by the living. Skins with the fur turned inwards were the usual form of dress, being found on 45 males and 15 females. These numbers reflect the randomness with which these perishable materials have been preserved. The presence of seams in the garments indicates that the Badarians had knowledge of tailoring and sewing. Needles of bone three to twelve inches long have been among the grave

goods. Another artifact that suggests itself in this regard is the copper pin described above. Tough pointed piercing tools would have been requisites for perforating the dressed skins before they could be sewn together. Traces of woven fabrics were found on several bodies, sometimes beneath an outer hide garment. It is likely, therefore, that the Badarians made a coarse type of linen, a material which characterized Egyptian dress throughout the historic period. The earliest example of figures actually wearing the white linen kilt appears on the mural on wall A of the painted tomb at Hierakonpolis (late Naqada II).

Bracelets. Ivory bracelets were found in situ on the forearm of several persons buried at Badari. Badarian bracelets are larger than Naqada I types. In the later predynastic assemblages bracelets manufactured of finely chipped flint occur (see J.R.A.I., Vol. 30, 1900: Pl. A facing P.14). No stone specimens were found at Badari. Ivory bracelets should be taken with the other types of artifacts made from ivory which will be described next.

CARVED IVORY

Ivory vases. These are quite small cylinder-shaped vases carved from a piece of tusk. Their form should be compared with that of the stone vases from Naqada I (Bad. Pl. XXIII, 1-8). The function of these vials is unknown, but to judge from their small size, they must have been containers for cosmetics or scent.

Ivory spoons. This class consists of delicate long-handled spoons that resemble the cosmetic spoons of much later times (Fredericq, 1927; Philips, 1941; Keimer, 1952). The handles of these spoons are carved

into the shapes of birds and animals. Similarities should be noted between these carved spoons, the predynastic ivory combs and the proto-dynastic mace handles with relief carving.

Fish hooks. Two hooks were found at Badari. One was of ivory (Bad. Pl. XXIV, 17), the other of shell (Bad. Pl. XXVII). Neither is barbed. The ivory hook is pierced where one would expect the line to be attached. If these artifacts are truly fish hooks and not vehicles of sympathetic magic, the general observation that fish hooks are rare in the Badarian assemblage will still stand. Brunton's opinion is that the Badarians fished exclusively with nets of which no traces have survived. (Bad. p.41b).

GROUND STONE

The cemetery has yielded 21 specimens of Badarian slate palettes (Bad. Pls. XX, 16; XXI; XXVI; XXVII, 1,3,5). Traces of green malachite and pebble rubbing stones found with the palettes indicate that the palettes were used for grinding a cosmetic substance which was mixed with a fatty adhesive (contained in the ivory cylinder vases) and painted on the upper eyelid. A clay figurine from the predynastic cemetery at El Mahasna is reported by Ayrton (1911, grave H33) as having signs of cosmetic painting of this sort around the eyes.

Slate palettes are an artifact type that became very widespread during the Naqada I and Naqada II periods, and which underwent great proliferation of size and shape. Slates dated to Naqada I begin with a simple rhomboid form and in Naqada II become elaborated into birds and

fish (Petrie 1020 Pls. XLII-XLV). Badarian palettes, by comparison, are smaller, rectangular in shape and are undecorated. The sides may be straight or slightly convex with a central V-shaped notch at either end. Through seriation it emerges that these notched palettes are the latest forms within the Badarian sequence (Bad. p. 31c). No notching occurs on predynastic period palettes although some of these latter types are pierced for suspension from a thong.

HUMAN FIGURINES

Only three human figurines are known from Badari. All are female and each is distinct from the other two, both in material and in phenotypic traits. The first, (Bad. Pl. XXIV, 1) is of baked pottery covered with a bright red wash and depicts a nude female form, somewhat steatopygous⁸, with pointed breasts. The second (Bad. Pl. XXIV, 2) is more realistically proportioned. It shows a slender, non-steatopygous, phenotype and is carved from elephant ivory. The third, of green unbaked clay (Bad. Pl. XXIV, 3), is closer in form to the first. It may be that the first and third represent one racial type and the second another⁹. Physical anthropologists have expressed the opinion that the large hips characteristic of steatopygy may be an artistic method of showing generalized obesity (Kelso, 1970: 256-7; Shattock, 1909).

COMPARATIVE STRATIGRAPHY

Relative Chronology. 1. Seriation of Badarian pottery types on the basis of combing and rippling places the browns at one end of the series; transitional rippled red forms are found in the middle and completely uncombed/unrippled reds occur at the other end.

2. Line-decorated motifs in burnishing are very rare on BB forms, more frequent on BR and most frequent in Naqada I where they become painted designs on White on Red ware.

3. Red on Buff/Orange forms are rare in the Badarian (three examples), equally rare in Naqada I and suddenly become numerous in Naqada II, climaxing in the jars with ship motifs and dancers.

4. The stratified site at Hemamieh (Fig. 1.2) gives the order in which the ceramic sequence (1.) should be placed: browns and rippled earliest, reds and non-rippled latest.

5. Running through the entire period are black-topped types. These are browns and reds. The browns are limited to the Badarian horizon; the black-topped reds go on to peak in the late stages of Naqada I (see Figs. 3.1, 3.2, 3.3 infra).

6. The evidence just presented may be summarized as follows, first by traits alone (Fig. 1.7) then by actual types (Fig. 1.8).

Figure 1.7 - Seriation of Badarian traits.

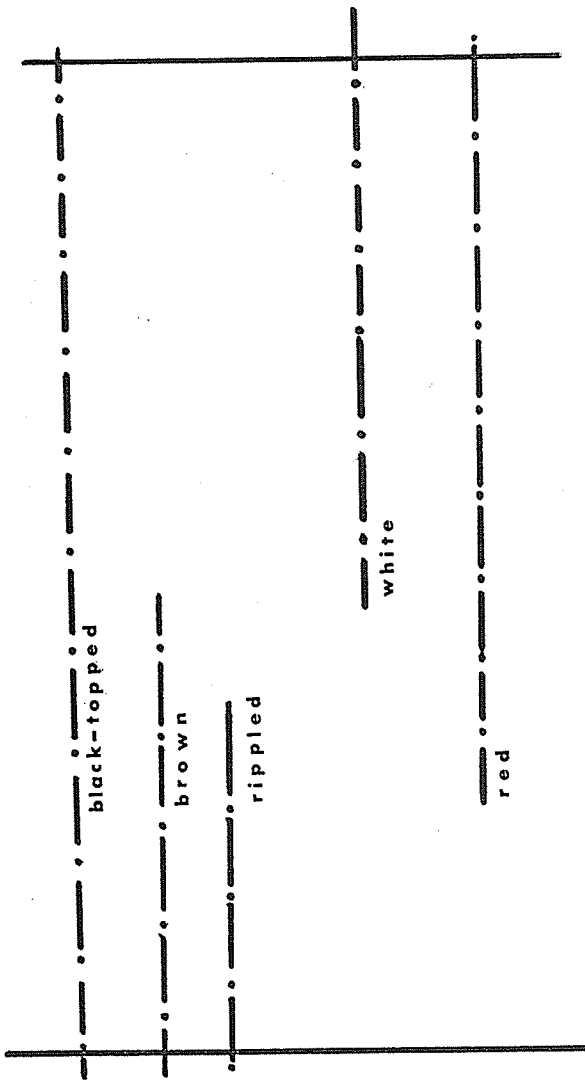
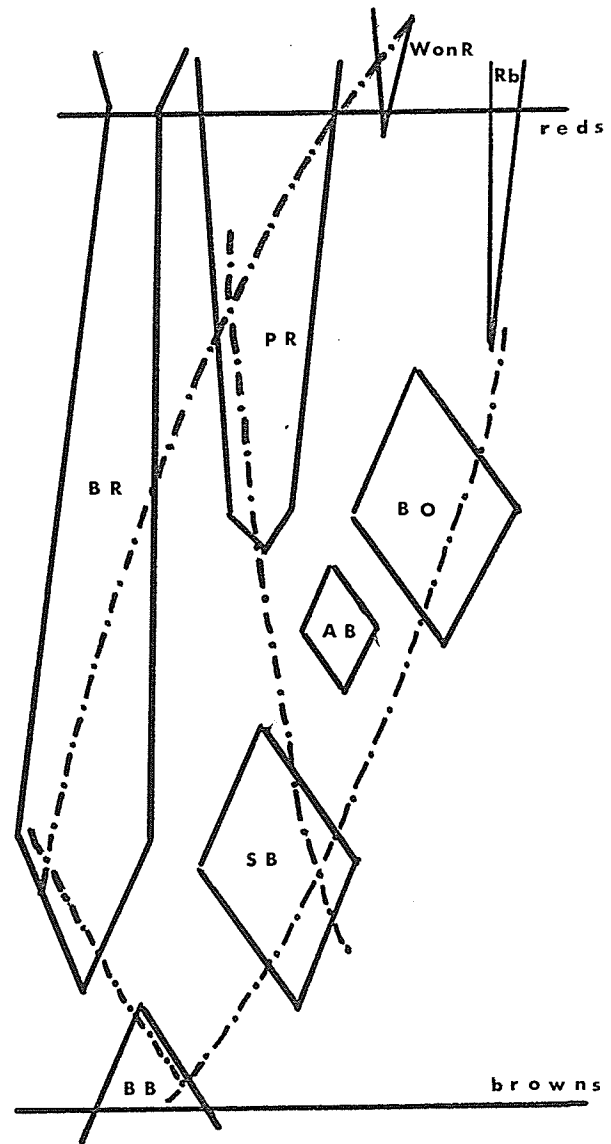


Figure 1.8 - Seriation of Badarian types.



SUMMARY

The distribution of Badarian artifacts is localized in the Deir Tasa-Hemamieh region of Upper Egypt. Within this zone there are sites still awaiting discovery. Minimally there should be the settlement that goes with the Badari cemetery and the cemetery that goes with the Hemamieh settlement. The question for Egyptologists is whether excavation of these sites would repay the effort in view of what is already known about the Badarians. What would be of most value would be new data strengthening or disproving connections between the Badarian horizon and that of Naqada II.

The people of the earliest chalcolithic culture of Upper Egypt were sophisticated potters but relatively inadequate workers in stone. The fact that they made their tools from loose pieces of nodular flint prompted Caton-Thompson to suggest that their original homeland lay outside the chert-bearing limestone formations of the Badari district (Bad. p. 75b-c). This same hypothesis is repeated unchanged by Arkell and Ucko forty years later in their review of the predynastic development in the Nile Valley (1965: 151a). They make the slight addition that the Badarians might have come up along one of the flanks of the Red Sea hills from a locality farther south. Their argument rests on similarities between the black-topped pottery of Upper Egypt and types of black-topped pottery found in the Khartoum Neolithic. The hypothesis of an ancestral homeland for the Badarians in the south is not contested by Baumgartel in her remarks following the article (ibid. pp. 156-7).

The Badarians were agriculturalists and keepers of domesticated livestock. Emmer wheat (Triticum dicocum) and barley (Hordeum vulgare, Hordeum distichum) were grown as cereal crops and there was also some species of flax from which a form of cloth could be made. Bones of cattle, sheep, goats, dog, ox, birds and fish give testimony to the range of contributions to the Badarians' diet.

The enigma of the Badarian culture concerns their origins. The physical anthropological data will be reviewed in detail in Chapter IV. At present the investigation must proceed at the artifact/technology level. It is generally believed that cereal agriculture and livestock domestication was begun in the north-eastern corners of the Fertile Crescent and at an early date was brought to the Nile Valley. The Tasian-Badarian is the oldest non-neolithic culture so far discovered in Upper Egypt and already by that time the people were veteran farmers and herders. At present information is lacking to resolve two major questions, the first of which is: did the predynastic populations of Upper Egypt develop in situ from the stock of the neolithic people whose hand-axes litter the higher level terraces of Upper Egypt? Second, if this is so, how can cereal crops and domesticated livestock be accounted for if not be a movement of people from Iraq at some very early time? What made them come to Egypt? and so on. In Chapter II, another enigma will be met: the presence of a strong Semitic element in the earliest written form of the language of Upper Egypt which itself is not a Semitic language.

There is a gap in the archaeological record which does not permit the reconstruction of an uninterrupted culture sequence from Paleolithic

to Predynastic times. This gap will be looked at in the next chapter.

The fragmentary nature of the data from Hemamieh makes it impossible to estimate the Badarian population or to say anything about their settlement patterns. Typologically, the Badari cemetery provides no evidence that the Badarians lived in a stratified society. It would not be more valid to infer on the basis of the homogeneity of the graves that the Badarians had a tribal, clan or lineage structured social organization. The matter of settlement is raised again briefly in Chapter V. Perhaps we can conclude that the absence of any class of weapons in the Badarian assemblages means that they were not the prey of hostile neighbours; conversely, it would seem unlikely that they themselves had occupied their territory through conquest.

CHAPTER II

THE NAQADA I PERIOD (AMRATIAN)

The next artifact assemblage with types shared by a number of sites characterizes the culture period known as Naqada I (Amratian), named for its type-site at El Amrah. The distinctive artifact types of the Amratian period are: pottery form and surfacing, burials¹, stone vases, flint implements, carved slates, carved ivory combs and tags, tools and weapons. The assemblages of this period are more widespread than those of the Badarian and are well evidenced from discoveries made at Matmar, Mostagedda, Hemamieh, Qau el Kebir, Raqaqna, El Amrah, Mahasna, Abydos, Hu, Abadyeh, Ballas, Naqada, Armant, Gebelein and Hierakonpolis.

Hemamieh: the 2-3½ foot levels (see Fig. 1.2). Stratified village site. Badarian rippled sherds die out as a new type, White on Red (WonR) comes in. Black-topped Red (BR) and Polished Red (PR) attain their maximum frequencies during the span of White on Red. Site yielded a variety of lithic materials, particularly palettes, disc-shaped mace heads and forked lance points (Brunton and Caton-Thompson, 1928).

El Amrah: cemetery site and type-site for the Amratian culture. Cemetery A: 200 graves approx. Spans entire predynastic period. Yielded pottery, slates, flintwork and ivory carvings. A few copper pins were also found (Randall-MacIver and Mace, 1902).

Cemetery B: 400 graves approx. Spans entire predynastic period. Site very poor in grave goods and has been extensively plundered in recent times. Yielded pottery and slates. Value of site is that it affords a seriation of predynastic grave types and associated materials.

Abydos: cemetery. Yielded pottery, slates, lithic tools (Randall-MacIver and Mace, 1902; Petrie, 1902-3; Peet, 1913; Amelinean, 1895-8).

Ballas: cemetery site. Yielded pottery, slates, beads and flint implements as well as a few Badarian sherds with a point-burnished pattern on the inside (Petrie and Quibell, 1896).

Naqada: cemetery site. 3000 graves approx. Most had been thoroughly plundered; intact burials extremely rare. Yielded pottery, slates flintwork, mace-heads and a few copper tools (Petrie and Quibell, 1896).

Armant: cemetery # 1400-1500. Associated settlement not yet discovered. Yielded pottery and a wide range of lithic material (Mond and Myers, 1937-8).

The predynastic settlement: level III. Yielded usual pottery types and a distinctive, localized unifacial flint industry.

The task of this chapter is to distinguish clearly the culture of the Naqada I period on the basis of its artifact assemblages in order to compare and contrast it with the Badarian which preceded it and with the Naqada II that followed it. With only a few exceptions, the predynastic sites have all been cemetery sites. This immediately causes problems for artifact analysis. What has been recovered in no way represents anything like a sample in the statistical sense, nor does it approximate an artifact cross-section of every day life. The habitation sites associated with the predynastic cemeteries await discovery beneath the cultivation of modern Egypt. Unlike sites in Mesopotamia, there are no mounds to identify the locations of the predynastic villages of Upper Egypt.

POTTERY

In this section it will be shown that Naqada I pottery developed in situ without relying upon foreign influences or upon a foreign invasion of Upper Egypt. The stratification at Hemamieh is of great importance because it provides the chronological/typological link between the Badarian and Naqada I (Amratian) periods. It is the only site to do so reliably.

The seriation of Polished Red (PR) and Black-topped Red (BR) ceramic types which began in the Badarian carries on unabated into the Amratian.

The ceramic material from the 2-3½ foot levels of Hemamieh is given in numerical form above in Figure 1.2. It may be seen that three new types appear in addition to declining numbers of Badarian rippled sherds and keeled vessels. These new types are: White on Red (WonR), Wavy-Handled (WH) and Red on Buff (Rb). It should be noted that Wavy-Handled jars are not as old as WonR. In fact, WH begins as WonR ends. This is known from other sites and Hemamieh is not too helpful in illustrating this point. Badarian rippled Sherds decline as Black-topped Reds and Polished Reds reach their greatest frequency. At the same time, White on Red (WonR) begins, runs its course and ends. As WonR is ending, Rb occurs more and more frequently. These observations have been confirmed by the typology from El Amrah and elsewhere, and will be discussed separately in more detail below. The Amratian period is traditionally defined as the lifespan of WonR pottery, which is S.D. 30 to 40 on Petrie's scale. The present study will develop the argument that Naqada I's upper limit should be extended to S.D. 45 or even beyond.

White on Red (WonR), (Figs. 2.2, 1-34; 2.3, 35-41; 2.4). WonR pottery forms consist entirely of bowls and upright vases with white or yellowish lines painted on a polished red slip. This ware closely resembles the Smooth Brown (SB) of the preceding chapter, which, by the addition of a red slip, became Polished Red (PR). By the further addition of a painted decoration, White on Red, the hallmark of the Amratian period was produced.

Evolution of White on Red Pottery. Red on White pottery could have developed locally without foreign influences because the traits making up White on Red were indigenous to the El Amrah region; only the arrangement of these traits was novel. The following is a suggested explanation which takes into account the traits and manufacturing techniques of the day that could have given rise to White on Red ceramics in situ.

Three principal lines contributed to the final product. The first line comes from the black pottery (AB, BIW) and the contributions are the traits of exterior surface designs in white and motifs of lines, chevrons and dot-filled triangles. The pottery of this line has been recovered in greater amounts from Mostagedda (Brunton, 1937) which is closer to Hemamieh and the foci of the Badarian culture even though Black/Incised White ware is rare in the Badari cemetery.

The second line that contributed to the evolution of WonR is associated with the rise of the color red which was first adopted as a slip (PR) and as a wash to produce painted red designs (Fig. 1.4, 31-33; Fig. 2.4, 1). The third line supplied a soft brown ware to which the

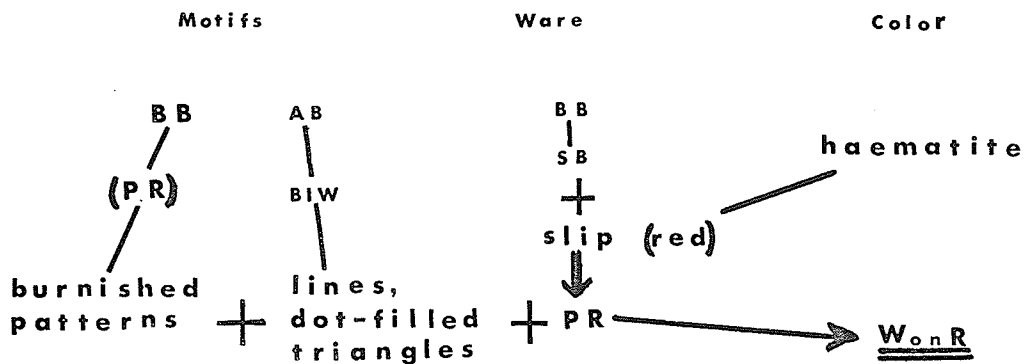


Figure 2.1 - Evolution of White on Red Pottery

red surfacing and white motifs were applied. These three lines are diagrammed in Figure 2.1. A supporting line of argument for the evolution of WonR in the fashion just described comes from the observation that the contributing lines seriate up to the appearance of WonR, and except for PR, have disappeared themselves by the time WonR ceases. Attempts to derive WonR from the painted pottery traditions of Mesopotamian and Iranian cultures have not been successful, and it has been argued that no such connections exist (Baumgartel, 1947: 54-71; 1965: 17-18; Kantor, 1949: 78-9).

Designs on WonR Pottery. Figure 2.2, 1-34 shows a traceable development in decorative motifs appearing on WonR pottery. The earliest, a pattern of white dots, show connections with locally occurring Black/Incised White pottery forms (see Petrie and Quibell, 1896, Pl. XXX, 2-50). Chevrons come next and by the addition of lines either diagonally or at right angles to the parallel chevrons, a cross-lined pattern was achieved. The most aesthetically pleasing and the most skilfully draughted designs occur in the cross-lined style. It is this category which led to the former name of "White Cross-Lined" to what has been more aptly called White on Red in the present study³. As the illustrations clearly show, not all of the White on Red designs are executed in the cross-lined style. The technique of crossed lines degenerated as plant motifs began to appear. The earliest of these plant motifs (WonR 14, 18) resemble the burnished designs on the inside of late Badarian bowls (Fig. 1.6, 2, 5, 6, 7). The latest designs adopt a wavy-lined style and the contrast is best illustrated between WonR 12, 24, and 31.

1. Bad, Pl. XXXVIII, 33k
2. Bad, Pl. XXXVIII, 50s
3. Petrie 1920, Pl. XI, 22
4. Amrah Pl. XV, 16
5. Bad, Pl. XXXVIII, 44t
6. Naqada Pl. XXVIII, 8
7. Petrie 1920, Pl. XIV, 42
8. Petrie 1920, Pl. XIII, 37
9. Bad, Pl. XXXVIII, 17n
10. Petrie 1920, Pl. XIV, 43
11. Petrie 1920, Pl. XII, 29
12. Petrie 1920, Pl. XVIII, 71
13. Naqada Pl. XXVIII, 36
14. Petrie 1920, Pl. XV, 59
15. Petrie 1920, Pl. XV, 57
16. Petrie 1920, Pl. XII, 32
17. Petrie 1920, Pl. XIV, 46

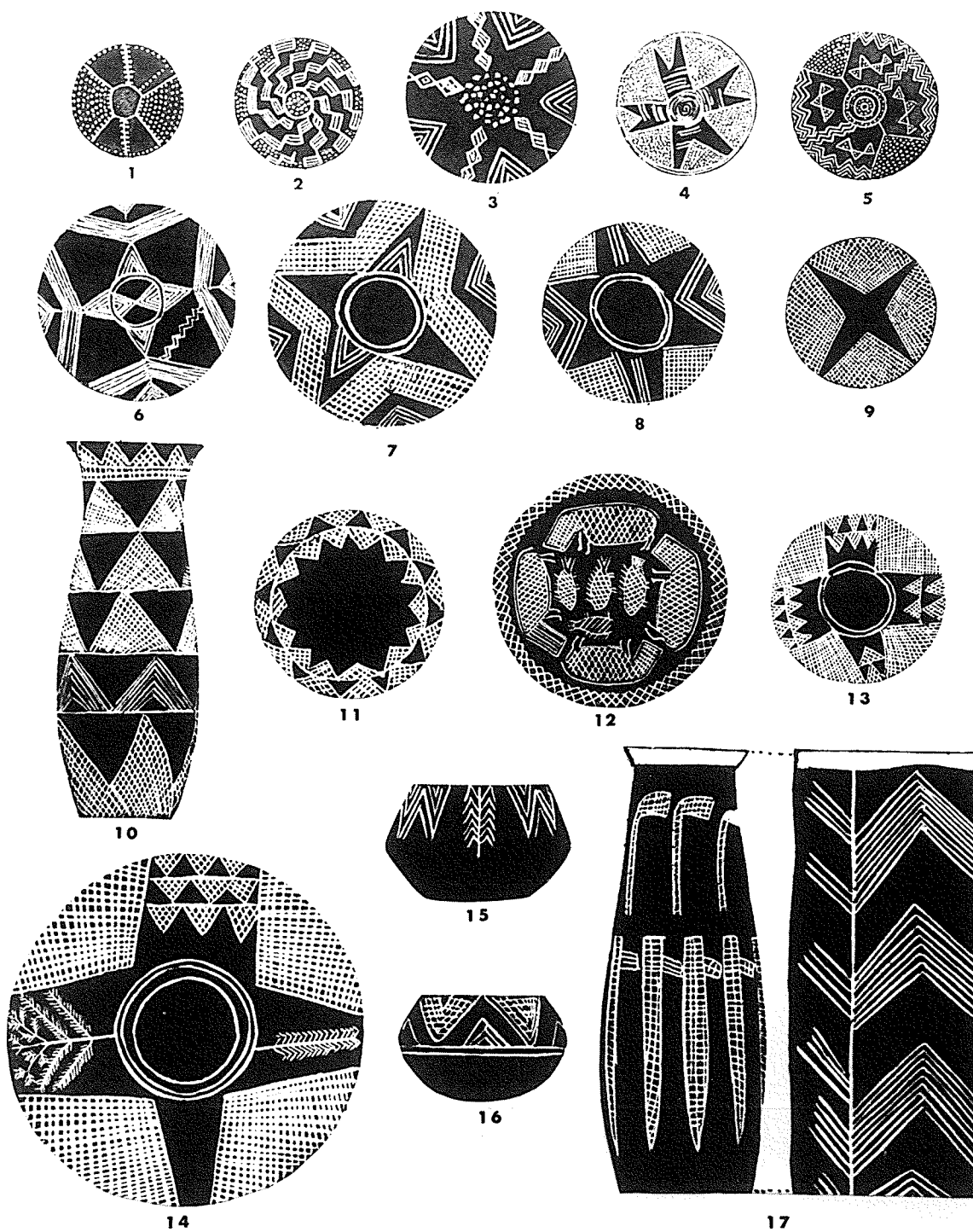


Fig. 2.2 White on Red Pottery, Motifs.

18. Naqada Pl. XXIX, 76
19. Naqada Pl. XXIX, 75b
20. Naqada Pl. XXIX, 69
21. Naqada Pl. XXIX, 75a
22. Naqada Pl. XXIX, 86
23. Naqada Pl. XXIX, 91
24. Naqada Pl. XXIX, 93
25. Petrie 1920, Pl. XVII, 69
26. Petrie 1920, Pl. XVII, 67
27. Petrie 1920, Pl. XVII, 68
28. Naqada Pl. XXIX, 97
29. Petrie 1920, Pl. XVIII, 73
30. Amrah Pl. XV, 10
31. Petrie 1920, Pl. XV, 55
32. Petrie 1920, Pl. XVI, 63
33. Bad. Pl. XXXVIII, 70k
34. Petrie 1920, Pl. XV, 54

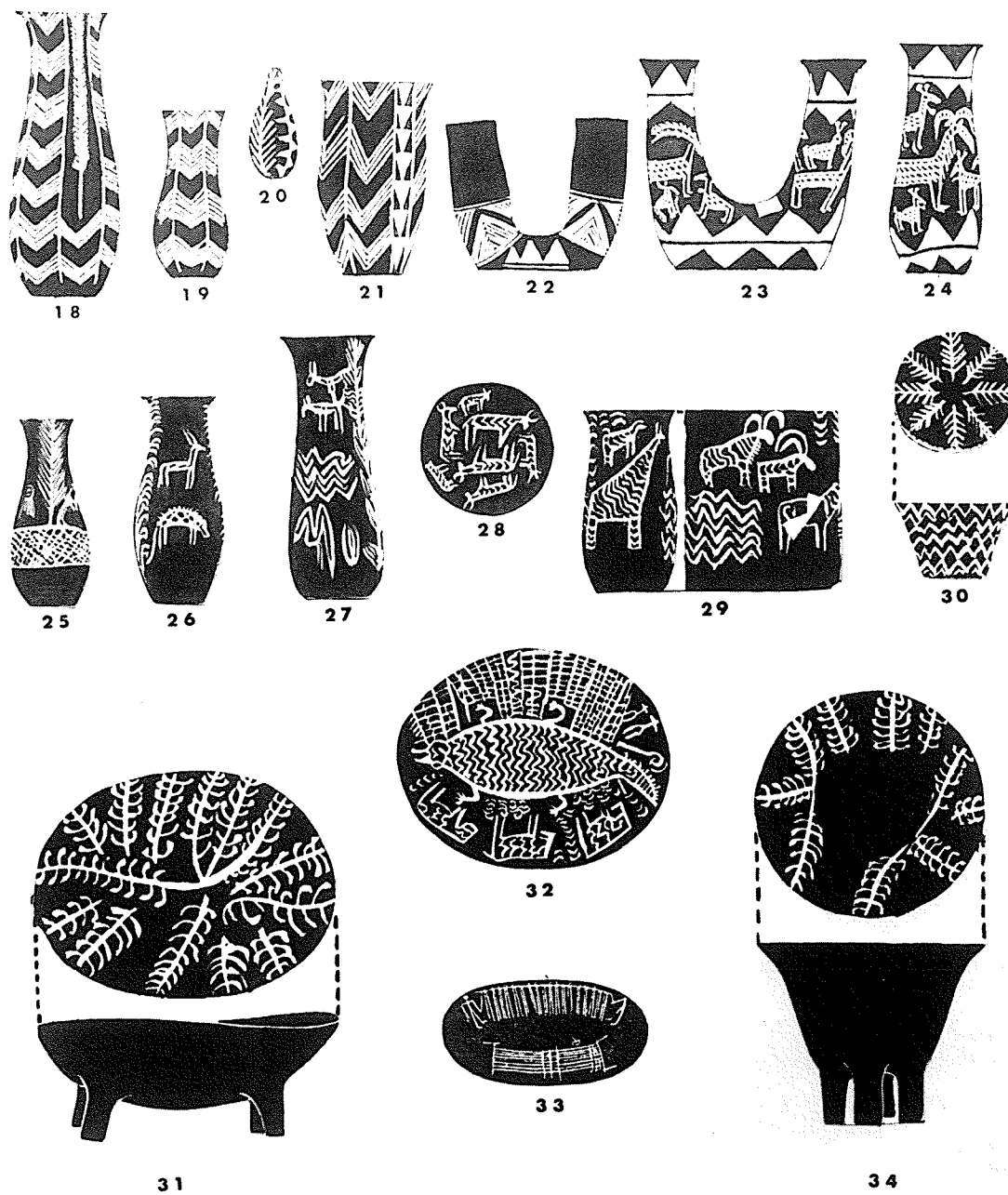


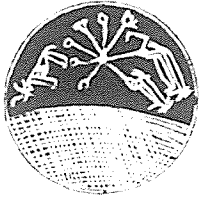
Fig. 2.2 White on Red Pottery.

At this point a group of noteworthy exceptional specimens of the White on Red style which display motifs characteristic of the Naqada II and even Early Dynastic periods must be introduced and described (Fig. 2.3, 35-41). All have been executed in the regular Naqada I style using white paint on a polished red background. The motifs are precisely of the sort that are normally found painted in red on vessels of the Naqada II horizon (infra, Chapter III). Stylistically, the two sets of designs are very close. The tethered animals on Fig. 2.3, 35 resemble a composition occurring late in the next culture period on the wall of the Painted Tomb at Hierakonpolis which Case and Payne take to be of Protodynastic date (1962: 12). (An illustration is given in Aldred, 1968: 33) Scorpions (36) are rarely shown before Naqada II and about the time of the Unification the scorpion came to represent the proper name of a king.

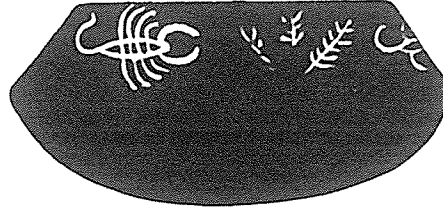
The plant shown on 37 is the first instance of the so-called "potted plant" which appears on Naqada II vessels as a symbol of Upper Egypt (Laurent-Tackholm, 1951). In dynastic times, the plant representing Upper Egypt in the king's nesu-bit titulary was probably a simplified rendering of the same plant that occurs on 37. The 'dancers' on 38 are reproduced identically on Rb ware (c.f. Fig. 2.4 where they occur also on WonR vases). The poles shown on 39 are the sacred standards which bore the nomedities in dynastic times; this design, though well known in historic times, does not appear on Naqada II objects until the Protodynastic period where it is shown carrying the Horus falcon on the Lion Hunt palette. A single exception may exist if the object serving as the standard on a Rb vase is not the Min-sign (Fig. 2.4, 2). The platter

35. Amrah Pl. XV, 17
36. Petrie 1920, Pl. XVI, 61
37. Petrie 1920, Pl. XV, 53
38. Petrie 1920, Pl. XVIII, 74
39. Petrie 1920, Pl. XIV, 45
40. Petrie 1920, Pl. XV, 49
41. Amrah Pl. XV, 19

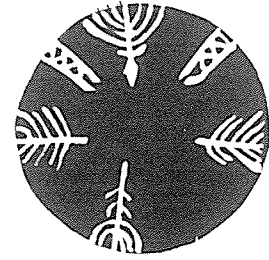
1. Bad. Pl. XL, 72k
2. Naqada Pl. XXXIV, 40
3. Scharff 1928, Pl. XXVIII
4. Scharff 1928, Pl. XXVI



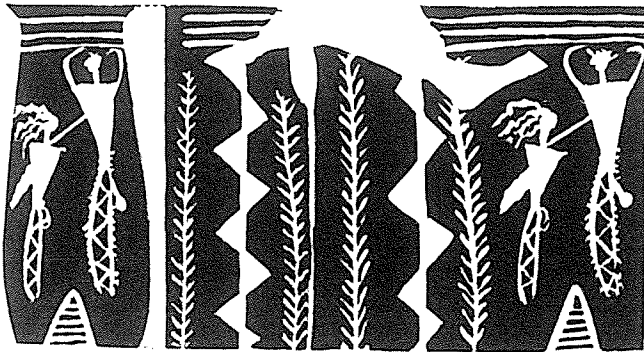
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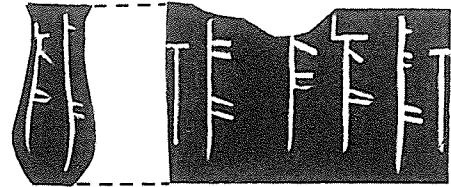
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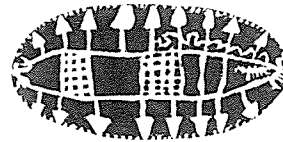
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38



39

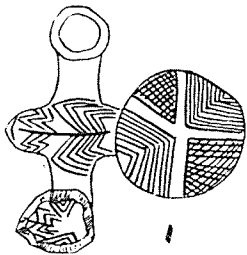


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41

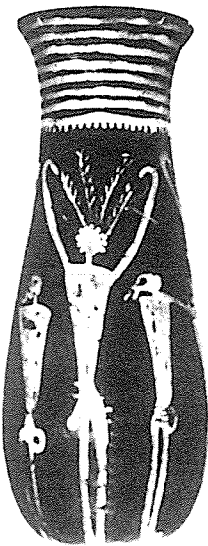
Fig. 2. 3 White on Red Pottery.



1



2



3



4

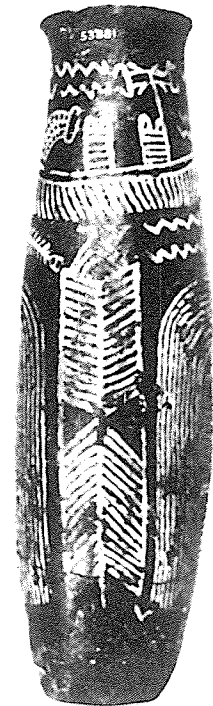


Fig. 2. 4

Fig. 2.3, 40 is unique. It shows a plan-view of the twin-cabined galleys which form a leading trait on Naqada II Rb vases (c.f. Fig. 2.4 also).

The exotic-shaped vessel shown in Fig. 2.4, 1 comes from Hemamieh. The artifacts described above are all specimens of Naqada II motifs executed in the Naqada I style. Just the opposite is the case with 2.4, 1. The form and motifs of the latter are pure Naqada I, but the colors are red painting on a buff background (compare Fig. 2.4, 1 and Fig. 2.2, 7-9).

These containers and the ones published by Scharff (1928) are of great importance typologically for establishing contacts between the cultures of Naqada I and II and their overlap in time. The conclusion that emerges is that the two culture periods were not completely sequential as was once thought. Instead, they were probably contemporary for a sizeable portion of their historical careers. The WonR was probably still in existence when the change to Rb was effected and a certain amount of imitating in the style of the former of the motifs of the latter resulted.

The duration of WonR pottery may have been short, although the progression of white painting styles discussed above argues for the greater persistence of this pottery type. The earliest Amratian forms are round-bottomed bowls. Later forms include carinated (keeled) bowls (compare WonR 15, 16, 36 to Badarian forms, Fig. 1.4, PR 21, 22, 23 and SB 26). SB 27 (Fig. 1.4) is also a common form found across the Naqada I period. However, the correlation of form and motifs has the levelling effect among Naqada I pottery of bringing the early and later forms together in time. The footed vessels and the wavy-lined style of painting do not fit this correlation and suggest a localized continuation of the white-painting

on polished red tradition. Hippopotami were a favorite subject for Amratian artists. Other animals frequently drawn in the Naqada I period are crocodiles, giraffes and a variety of horned antelope. In the Amratian the first pictures and carvings of cattle are found. Bulls (buffalo?) with inward curving horns appear in painted form (WonR 28) and delicately flaked from pieces of flint (Centre de Documentation n.d. Fig. 72).

The craftsmanship of Naqada I pottery is of a poorer quality than work from the Badarian horizon. Amratian WonR is thick-walled, asymmetrical hand-made ware which is either black or brown in cross-section. The raw material most commonly used is mud from the river bank. Tempering was with sand and firing was carried out at a relatively low cone temperature or the vessel would collapse. The vessel was coated with a red slip while the clay was still "green" (i.e., not completely dry); it was then set aside to dry and to be polished. The white designs were applied either as a wash consisting of a paste of pure gypsum or as a thin soup made up of gypsum mixed with clay. The even coloration of Amratian pottery indicates that the potters were in better control of the firing process or at least that the uppermost contents of the kiln were less subject to draughts and fluctuations in the oxidizing atmosphere.

Other pottery types surviving into the Naqada I are BB, BR, PR, AB and early examples of Rb. The persistence of black-topped pottery indicates that this type was being made deliberately for reasons of everyday usage or for aesthetic value (Fig. 2.5, 1-10).

BURIALS

The burials at El Amrah in which WonR and BR pottery were recovered are round shallow graves normally containing a single skeleton. In the evolution of the El Amrah cemeteries, these shallow round graves are the oldest. Similar reports have been made from Mahasna (Ayrton and Loat, 1911), from Abadiyeh and Hu (Petrie, 1901) and from Naqada (Petrie and Quibell, 1896). The following description of Naqada I burials should be compared with the Badari burials in the previous chapter. Figure 2.6 shows a typical Naqada burial with Early and Late assemblages.

Dimensions. Due to surface erosion, the true depth of the graves is uncertain; the average is between three and four feet. No differences in size that might be taken as a sign of social stratification were observed. The circular pits are only large enough to contain the body, a small amount of pottery and a few toilet objects. Two exceptional cases of disarticulation at El Amrah are possible secondary burials (Randall-MacIver and Mace, 1902: 7c-d).

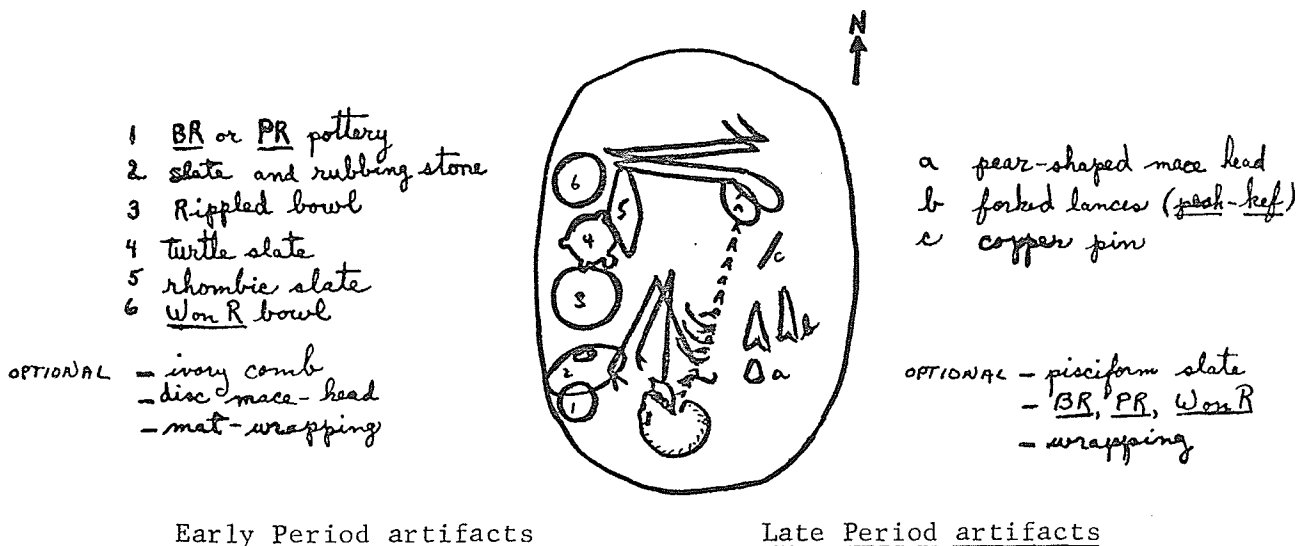


Figure 2.6 - Naqada I burial

Posture. Burials are in the contracted position with the knees drawn up sharply and the hands placed before the face. At El Amrah, some bodies had been wrapped in leather, possibly goatskin, and wrapped in an outer casing of reed matting. The goatskin is absent in burials of this period at Mahasna (Ayrton and Loat, 1911: 4a). Mahasna is located between El Amrah and Badari (Map 1). At Badari, it will be remembered, leather garments with the fur turned inwards and possessing sewn seams were commonplace articles of dress for men and women alike.

Several notable burials from the Naqada cemetery are reported by Petrie. In one case the skull had been set upright on a block away from the rest of the skeleton (Petrie and Quibell, 1896: 31b). In another instance bones were found which had been broken and gnawed at the ends and these same showed where the marrow had been dug out. Petrie and later writers have concluded, therefore, that the Naqada I people were cannibals (ibid. p. 32d).

Orientation. Prior to the discussion, the orientations of Amratian burials are shown summarized in Table 1.

Though slight variations exist, the orientation of Naqada I burials indicates a large degree of cultural homogeneity between the Badarians and the people of Naqada I.

In Naqada I burials, as was the case at Badari, the prevailing orientation was to have the head point to the south and the face directed towards the west. Exceptions occur far to the north at Medum (5 km. south of Gerzeh), at Badari (Brunton: Bad. p. 19a) and at El Amrah (Randall-MacIver and Mace, 1902: 14c). These differences can be accounted

TABLE 1

ORIENTATIONS OF AMRATIAN PERIOD BURIALS

Site	Orientation	
	Head	Face
Hemamieh
Mahasna	south	west
El Amrah	south	east (20 face w.)
Abydos	south	west
Ed Deir	south	west
Ballas	south	west
Naqada	south	west
Armant	W.S.W (local south) ^a	north (local w.) ^a
Medum	north	east
Badari	south ^b	west
Gerzeh	south ^b	west ^b

^aThe orientation at Armant seems to take the river as a local indicator of north and south. Aberrations can be explained in this way.

^b"Though the normal pre-dynastic position of the head to the south and the face to the west, lying on the left side, was more general than any other, yet the abnormal positions outnumber the normal." (Wainwright, 1912: 5c).

for if it were to be proved that the Thebaid formed a culture focus at this time (Kaiser, 1956: 1957). Traits diffusing northward from this centre might have met traits diffusing southward from a focus in the north or from a secondary centre at Badari. The lack of uniform north-south orientation of the head at Badari as well as the presence on that site of early Red on Buff sherds, might constitute evidence for supposing that Badari fell under the twin influences of the northern and southern culture centres with the latter being the stronger. It is known that a

civilization flourished in Lower Egypt in predynastic times because the administrative capital was moved north to Memphis as soon as the Unification had been effected.

Conclusive stratigraphic data from the Thebaid has not been forthcoming. Subsequent studies all have relied upon statistical interpretations of the artifacts discovered fifty years ago, and upon the original site reports. Since the majority of these site reports justly make use of Petrie's Sequence Dating scale, subsequent re-studies have been bound to it as well. The alternative is a complete re-examination of the artifacts which have been dispersed to museums around the world. Inconsistencies of trait distribution indicate that the site of El Amrah was itself located for a time in a zone of transition.

Preservation. No attempts at mummification or any other forms of artificial preservation of the body was practiced by the Naqada I people.

STONE VASES

Stone vases appear in the Naqada I horizon. These vessels are made from a variety of hard local stones including basalt, marble, limestone, breccia and slate. Alabaster (calcite) jars are rare but become more numerous in Naqada II and into the dynastic period. Like the pottery of this assemblage which is not turned, stone vessels were manufactured without the use of a lathe (Petrie and Quibell, 1896: 37c). Interiors of vases were hollowed out by means of a weighted borer that could be rotated in an abrasive such as sand or emery. Aldred (1965: 39) gives an

illustration of a mason's boring tool which also represents the hieroglyph h m. The frequency with which stone vases are found at El Amrah and at other Naqada I sites in the Thebaid suggests that the manufacture of stone vases was begun at El Amrah and that the finished products moved southward into the Thebaid where they were imitated by local craftsmen in softer stones. Recovered specimens suggest that at first only the El Amrah craftsmen could work hard stones like granite and basalt.

The form of Naqada I stone vessels is distinctive, being an upright tubular shape with pierced handles and a small conical foot. This form should be compared with the shape of the small tubular vials made from ivory at Naqada (Petrie and Quibell, 1896, Pl. LXIV, 105). The ability of Naqada I craftsmen to bore vases from the hard mantle rocks, granite and basalt, is proof of the advancement of Naqada I technology. Their ability to work stone is also borne out by the categories of artifacts produced by grinding and flaking.

CHIPPED STONE

The most important chipped stone industry of the Amratian culture is a flake technology, the quality of whose workmanship shows steady improvement over time. At Hemamieh, the 2-3½ foot levels have revealed an advanced flake industry using prepared cores to produce blades⁴. A variety of primary blade-flakes were steep-flaked on the ends to form scrapers. Suliman Huzayyin, in discussing the Naqada I assemblage of stone tools from Armant, has said that scrapers are rare in the true neolithic industries of Upper Egypt. In post-neolithic times, however, they become

more frequent (1938: 216). It follows that the increase in this type of artifact corresponds to the increasing use of dressed hides as clothing and the scrapers were used for fleshing and de-fatting the skins. Scrapers as an artifact type, and blade end-scrapers in particular, are important because they link the stoneworking activities with industries previously existing in Upper Egypt from paleolithic times.

No true Neolithic sites have been discovered in Upper Egypt. Such a site would be identified by the presence of ground and polished stone tools. Copper would be absent altogether. The oldest post-paleolithic assemblage found in Upper Egypt so far is the Tasian-Badarian. In the previous chapter the Tasian is subsumed under the cover-term Badarian in accordance with modern scholarly opinion. The Badarian assemblages contained copper but no ground stone tools. Grinding does not appear consistently until late in Naqada I where it is used in the manufacture of slate palettes and large knife blades⁵. Ground slate palettes were found in the Badari cemetery, but in the Badarian horizon only slates were ground. No simpler ground implements were reported. This curious fact tends to support the conclusion arrived at in the previous chapter that the Badarian may have been contemporary with Naqada I and even part of Naqada II. In this way, ground cosmetic palettes could have diffused to the Badarian settlements from Naqada I sites in the south. Naqada I is the first horizon in which stoneworking becomes a highly sophisticated trade. Grinding is a neolithic trait that occurs in Upper Egypt in the absence of neolithic sites per se. It is curious that in this and the following chapter, grinding is limited to a small range of (ritual?) artifacts.

A gap exists between the paleolithic (Levalloisian/epi-Levalloisian) and the chalcolithic (Badarian/Amratian) cultures of Upper Egypt and whether this gap will ever be filled in is uncertain. There are typological similarities on either side of the gap and steep-ended scrapers on blade flakes are one of the bridges. There are many indications from the artifact sequences that the cultures of the predynastic period evolved in situ from a more generalized paleolithic precursor. These indications are discussed here and in the next chapter. In view of these connections, the evidence for the paleolithic substratum in Upper Egypt must now be reviewed.

End scrapers on primary blade flakes are reported from the Acheulio-Levalloisian 3-4m. terraces at Kharga Oasis situated west of El Amrah (Caton-Thompson, 1946: 82; and ibid., Fig. 3, No. 3). Steep-flaked scrapers on blade flakes have also been found on the 3-4m. Nile terraces at Thebes (ibid.). Typologically and chronologically, this correlation argues for the contemporary spatial distribution of the "culture" which produced these artifacts. Significantly, the triangle formed by Kharga-Tukh-Armant and cited by Huzayyin as the kernel zone for a group of industries characterized by flaked and re-edged axes (1938: 210) overlies the earlier Kharga-Thebes axis for the distribution of paleolithic end-scrapers.

Huzayyin's identification of a localized unifacial lithic industry around Armant is in contrast to the bifacial industries found in Naqada I assemblages elsewhere. Huzayyin concludes, on the basis of the chipped flint material from Armant, that there were two pre-Naqada

culture centres in Upper Egypt. The Tukh-Naqada region of the upper Thebaid, he says, was a zone of cultural transition between these centres (1938: 230). This transition zone is like a wedge driven between the two cultural centres. In a recent article, Werner Kaiser has argued that Naqada was the origin and nucleus of the Naqada I culture (1957). This is not an unlikely possibility. Naqada would be located at the tip of the wedge and is ideally situated with respect to north-south and east-west trade routes (infra, Chapter V).

Above, the likelihood that El Amrah itself may have been for a time located in a transition zone has been discussed. What may have happened is this: one culture centre, characterized by a unifacial lithic technology evolved from paleolithic industries in the region of Armant. A second culture centre, characterized by a bifacial industry and a rapidly developing expertise in working hard stone into vases, grew up at El Amrah. At Naqada, in between these two centres, a third culture emerged and proliferated because it was a rich trading town or port of trade. Traits diffused outward from Naqada until artifact types at El Amrah came under the influence which continued to spread northward to Hemamieh and southward to Armant. The aberrant burial types found at El Amrah and Badari can be explained in this fashion as the conflict between the autochthonic population at El Amrah and the spread of new traits from Naqada. In the First Dynasty, the region around El Amrah was important for cult reasons, and it was important that rulers be buried there. Specifically, Abydos was the important shrine and burial ground. This explanation might also serve to explain the motifs from Naqada II that

were executed in the style of Naqada I. In approaching this issue, one must begin with the question: Who are represented in these motifs? the Naqada II people themselves? the Naqada II people's image of some other people? that other people's view of themselves? or the other people's view of the Naqada II inhabitants? It may be that the first and the fourth are the answer.

The Armant unifacial tradition. Huzayyin's observations of a unifacial tradition centred in the Armant-Nag' Hammadi region must be included at this time as a possible clue about the situation of the stone technologies of Upper Egypt in a period later than the epi-Levalloisian, and at perhaps the time when one would expect a true neolithic stage to emerge. The Armant assemblage, however, has yielded no ground tools to suggest that there was a neolithic component in the vicinity. The typical industry of the Amratian assemblages reaching from Hemamieh to Naqada is bifacial. At Armant, implements were found that were flaked from only one side.

Caton-Thompson reports symmetrical leaf-shaped unifacially worked flakes from Armant as early as the 3-4m. ("Typical Mousterian") terraces (1946: 73). By geological stratigraphy, such artifacts should be approximately contemporary with types from sites of the same level at Kharga and Thebes. The area over which unifacially worked artifacts are found appears to have contracted until they survived only at Armant. It has not been possible to compile a chronological sequence from the 3-4m. terraces down to the graves of Naqada I. Speaking from the data of the flint industry and not pottery, Huzayyin has dated the Armant materials to

Naqada I and II (1938: 229). His remarks that the Armant artifacts have little in common with artifacts from Badari and Deir Tasa are not unexpected. Thus, the Armant tools which he ascribes to Naqada I had had a long previous history in situ. It is due to the neolithic gap that this history cannot be constructed in more detail. However, saying that there should be a neolithic period at all in Upper Egypt may be a methodological fallacy.

In the late paleolithic following the epi-Levalloisian II phase in Upper Egypt, microlithic industries grew up. Microliths have been found in the Kharga and in the Faiyum oases (Caton-Thompson, 1946: 117; 1931, 1934; 1952). That the first experiments with agriculture in Upper Egypt might have taken place in the fertile and sheltered oases is consistent with one writer's opinion that oases were ideally suited to the primitive technology of neolithic farmers (Wheeler, 1956: 135). At Armant many cores were recovered which bear microlithic flake-scars but no microlithic flakes were found (Huzayyin, 1938: 203). This anomaly has not been explained, but if the cores represent a survival of the late paleolithic technique of microlith flaking, this would be additional evidence for a long developmental sequence at Armant.

Sir Robert Mond, who excavated the Armant cemeteries, has argued that the artifacts from Armant show a lag of about five Sequence Date units compared with Naqada I sites farther north (1938: 2). Aside from a few intrusive Badarian and some Badarian-like sherds, Naqada I is the earliest horizon that is present in the Armant cemeteries. If a cultural lag did occur in the diffusion to Armant of Amratian traits, two hypotheses are suggested:

The first hypothesis says that if the Naqada site was the centre of the Naqada I (Amratian) culture, then the slowness of diffusion over the shorter distance from Naqada to Armant (but not from Naqada to El Amrah) would be indicative of a major cultural dissimilarity between the populations of the two towns. The corollary implies the entrenchment of the Armant people in their indigenously developed culture pattern. At a much later period of Egyptian history it was two noble families from Armant (Hermonthis), the Amenemhets and the Sesostres, who ended the First Intermediate Period, started the Eleventh Dynasty, moved the political capital of Upper Egypt to newly-founded Thebes, and began the worship of Amon as the principal deity of the land.

The second hypothesis assumes El Amrah to have been the nucleus of the Naqada I culture. The lag at Armant may again be accounted for by major differences between the populations. The diffusion of traits in this case had a longer distance to travel and passage through the Thebaid transition-zone may have been extremely slow. Artifact evidence strongly suggests that more cultural homogeneity existed inter se between populations distributed immediately around El Amrah than between El Amrah and Armant. As the posture and orientation of Naqada I burials have shown, there were also similarities that were far-reaching and in the overall view it is more likely that all the inhabitants of Upper Egypt were fundamentally alike culturally and physically. The physical anthropology of Upper Egypt will be dealt with in Chapter IV. That there was a polarization of the populations of Upper Egypt is evidenced by the centre of Horus-worship located at Hierakonpolis and the centre of Set-worship at Nubt,

about five miles north of Naqada. In the Archaic period, there was constant conflict between the Horus faction and the Set faction. This division on religious grounds likely went back to neolithic times, nevertheless, there seems to have been an acceptance of common beliefs by both factions which inclines the investigator to look upon them as rival tribal confederacies rather than entirely separate races. Skeletal material also supports this belief.

GROUND STONE

Slate palettes were used as grinding boards in the preparation of facial cosmetics. Archaeologically, this artifact type is important in the predynastic period for purposes of seriation. Their maximum frequency is attained in the Naqada II period and by the protodynastic they are in decline functionally while at the same time they take on characteristics of stelae. Slate palettes were the property of women and children at El Amrah. Of the 88 graves in which slates were found, only three were found in graves with a male skeleton (Randall-MacIver and Mace, 1902: 47a).

At Hemamieh the earliest Amratian palettes were rhombic in shape and up to three feet in length (Fig. 2.7, 1, 9). Slates in similar form were found in the round shallow graves at Mahasna in association with PR and WonR pottery (ex: grave H 90). The evolution of cosmetic palettes in Naqada I shows a progression in which the sides of the rhomb become increasingly straight until a rectangular form was produced about S.D. 39. Rectangular palettes persisted subsequently in the seriation from S.D. 39 to S.D. 76. Contemporary with the rhombic slates in Naqada I are palettes

1. Bad. Pl. XXXV, 18n2
2. Bad. Pl. XXXV, 21b4
3. Bad. Pl. XXXV, 25b2
4. Amrah Pl. XIV, B27h
5. Naqada Pl. XIX, 27g
6. Bad. Pl. XXXVI, 32b
7. Naqada Pl. XIX, 31
8. Amrah Pl. XIV, B31a
9. Bad. Pl. XXXV, 11 k2
10. Bad. Pl. XXXVI, 29e2

1. Bad. Pl. LII, 3
2. Naqada Pl. XLVII, 24
3. Bad. Pl. LII, 20
4. Bad. Pl. LII, 21
5. Naqada Pl. XLVII, 10
6. Naqada Pl. XLVII, 4
7. Naqada Pl. XLIX, 72
8. Naqada Pl. XLIX, 70

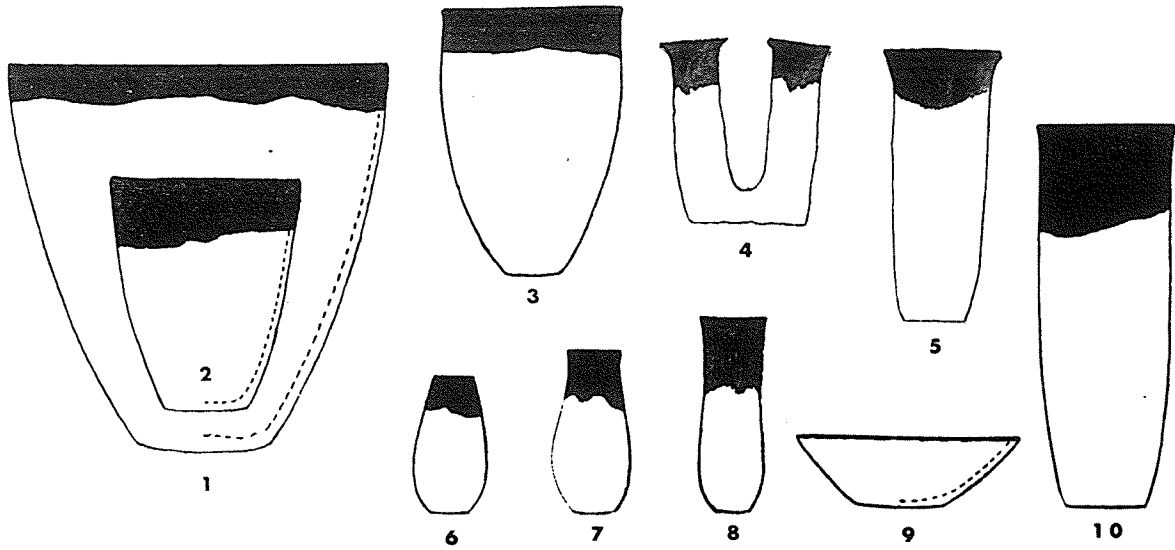


Fig. 2.5 Black-topped Red Pottery Forms.

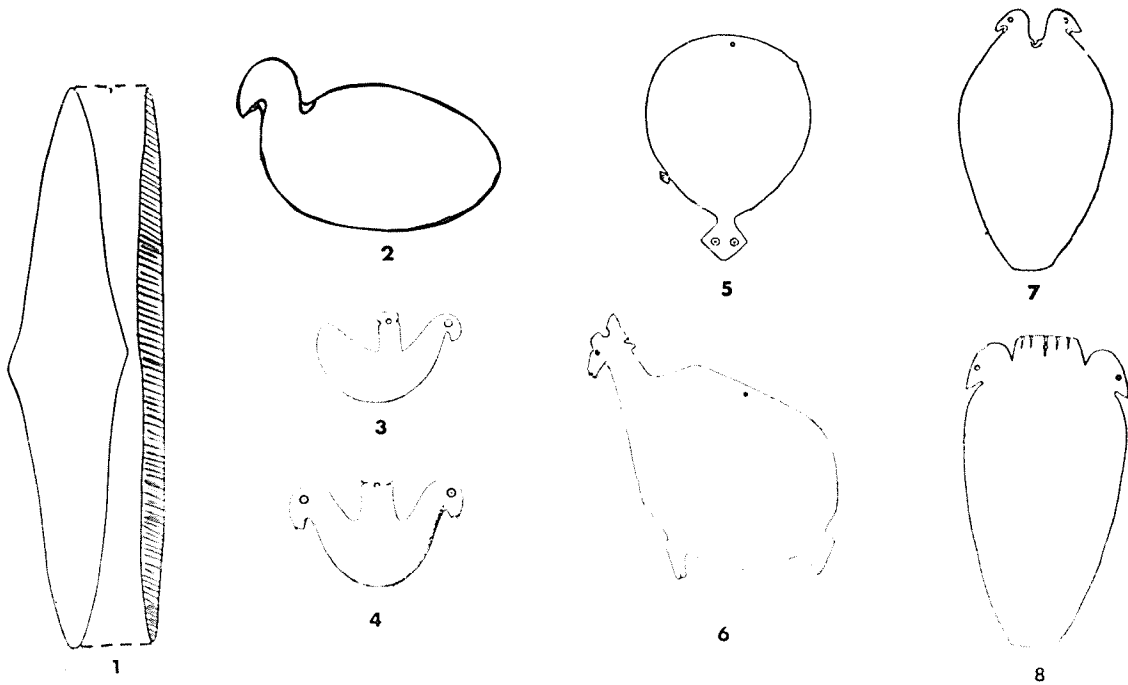


Fig. 2.7 Slate Palettes.

9. Bad. Pl. LII, 5
10. Petrie 1920, Pl. LXIV, 91 T
11. Naqada Pl. LXIII, 58
12. Naqada Pl. LXIII, 63

1. Bad. Pl. LXXX, 84
2. Bad. Pl. LXXX, 79
3. Bad. Pl. LXXX, 80
4. Bad. Pl. LXXX, 75
5. Bad. Pl. LXXX, 65
6. Bad. Pl. LXXX, 60
7. Armant Mond & Myers 1937-8, Pl. XX, 1457
8. Naqada Pl. LXXIII, 66
9. Bad. Pl. XXXVIII, 72
10. Naqada Pl. LXXIII, 63
11. Naqada Pl. LXXXII, 52

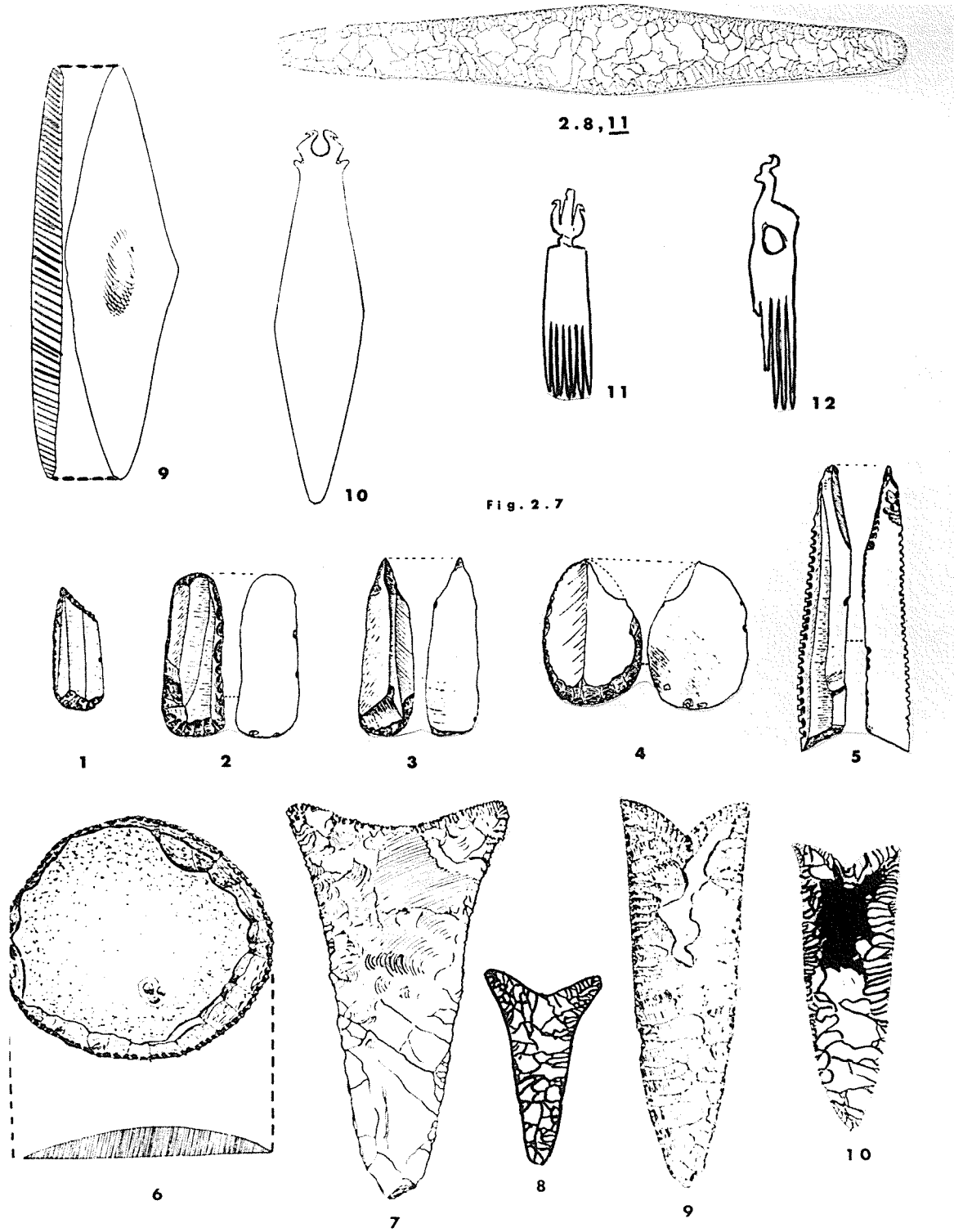


Fig. 2.8 Flint Implements.

in the shape of turtles and birds (Fig. 2.7, 2, 5-8). These were replaced in Naqada II by pisciform palettes in the shape of the Oxyrhyncus fish.

Of importance for seriation is another type of slate which is too small to have been of practical use in preparing cosmetics. These are the crescent bird-headed/double bird-headed slates and the two horned tags (Fig. 2.7, 3, 4). Bird heads are late in the Naqada I sequence and are c. S.D. 40. These small slate probably served as amulets.

CARVED IVORY

Combs (Fig. 2.7, 11, 12). Combs with long teeth were carved from ivory into shapes resembling those of the cosmetic palettes. Such combs were worn upright in the hair in the manner of Spanish combs. One specimen has been found in situ in the grave of a woman at El Amrah (grave b 215). Amratian long-toothed combs evolved to short-toothed varieties in the next culture period and eventually to a mere zigzag line where the teeth once were. Long, narrow decorative hair-pins are also known from the Naqada I burials. The importance of these ivory trinkets, apart from adding to our knowledge of the style of dress of the time, is primarily in rounding out the trait seriation of the Naqada I assemblage. Our actual knowledge of the people as a society is very small.

Spoons. Delicate thin-handled spoons whose size and shape suggest their function as toilet objects do occur, but they are rare in the Naqada I assemblages. Their handles may be plain or carved into the shapes of animals like the spoons from Badari.

Ivory jars. Tiny unguent vials were carved from ivory in imitation of the forms of contemporary stone vases (see Petrie and Quibell, 1896, Pl. LXI, 10, 11; Pl. LXIV, 105).

Harpoons. Barbed harpoons of bone or ivory are occasionally found in the Naqada I cemeteries. Scenes of men harpooning crocodiles are shown on WonR pottery, usually in the wavy-line style that is characteristic of the later period. The rarity of harpoons may be due to the material from which they are made and the hazards of preservation. As a type, harpoons are found only in the Naqada I and II periods. Where they occur in later periods, as for example the gilded wood statuette of Tutankhamen as a harpooner standing in a papyrus boat (Desroches Noblecourt, 1963, Pl. XLV, facing p. 216), the harpoon is merely a ritual weapon.

TOOLS AND WEAPONS

Selected tools of the Naqada I assemblages have already been treated in the section on Flint Implements. There the purpose was primarily technological. In this section the intention is to gain a picture of the subsistence activities carried on as a part of everyday life. This picture is weak because not many tools have been recovered from the pre-dynastic cemeteries. Distortion can also enter because the two settlement sites of the Naqada I period (Hemamieh, levels 2-3½ feet; and Armant, level III) are actually quite distant from the type sites of El Amrah or Naqada.

At Hemamieh, blade end-scrapers and curious plano-convex disc-shaped scrapers were found. The Naqada I layers in the Hemamieh side

have yielded denticulated sickle flints as well (Fig. 2.8, 1-6). The following types come from level III of the settlement site at Armant: cores and core tools, one ground and polished axe, a few flaked axes, chisels, stone dibbles (?), flaked knives, projectile points and sickle flints. The trend from the oldest to the Naqada I layer at Armant goes from projectile points to spear points as flaked axes and sickle flints increase. The sequence shows the growing influence of agriculture in the people's lives and the decline of hunting. The single ground and polished axe is not supported by the rest of the assemblage; consequently, it must be looked upon as an intrusion.

A variety of copper pins, needles and piercers indicates that leather was being made into clothing and goatskins were found on some bodies. The horizontal loom shown on Fig. 2.2, 32 ties in with the manufacture of cloth which is also evidenced from the burials.

Weapons, which were not found in the Badari graves, occur in the Amratian period assemblages. The most characteristic type is the disc-shaped, flat-topped mace-head (illustration of a clay model given in Randall MacIver and Mace, 1902, Pl. XII, 1). The disc-shaped mace head was contemporary with a pointed variety. Both date from c. S.D. 31-41. Other distinctive Amratian weapons are the forked lances (Fig. 2.8, 7-10). Clay models show that these were meant to be hafted at the foot of the Y leaving the arms free to act as barbs. The use and the effectiveness of these devices as penetrating weapons is uncertain. Developmentally, forked lances began with the rounded form (Fig. 2.8, 7, 8), and evolved

to the sharply divided fish-tail shape within the Naqada II sequence (Fig. 2.8, 9, 10). Fish-tailed forms persisted up to about S.D. 63.

SUMMARY

The major sites from which Naqada I are reported have been discussed in this chapter. Due to the nature of these cemetery sites, a stratigraphic correlation in the normal sense is not possible. In the discussion, what has been done was to select important artifact types and to work from a seriation of these types. The Naqada I culture is defined on the basis of a complete set of artifacts' occurring in association with White on Red painted pottery. On these grounds, Kaiser's four periods are not followed because a cluster does not follow each of his stages and new burial types or other important criteria do not occur.

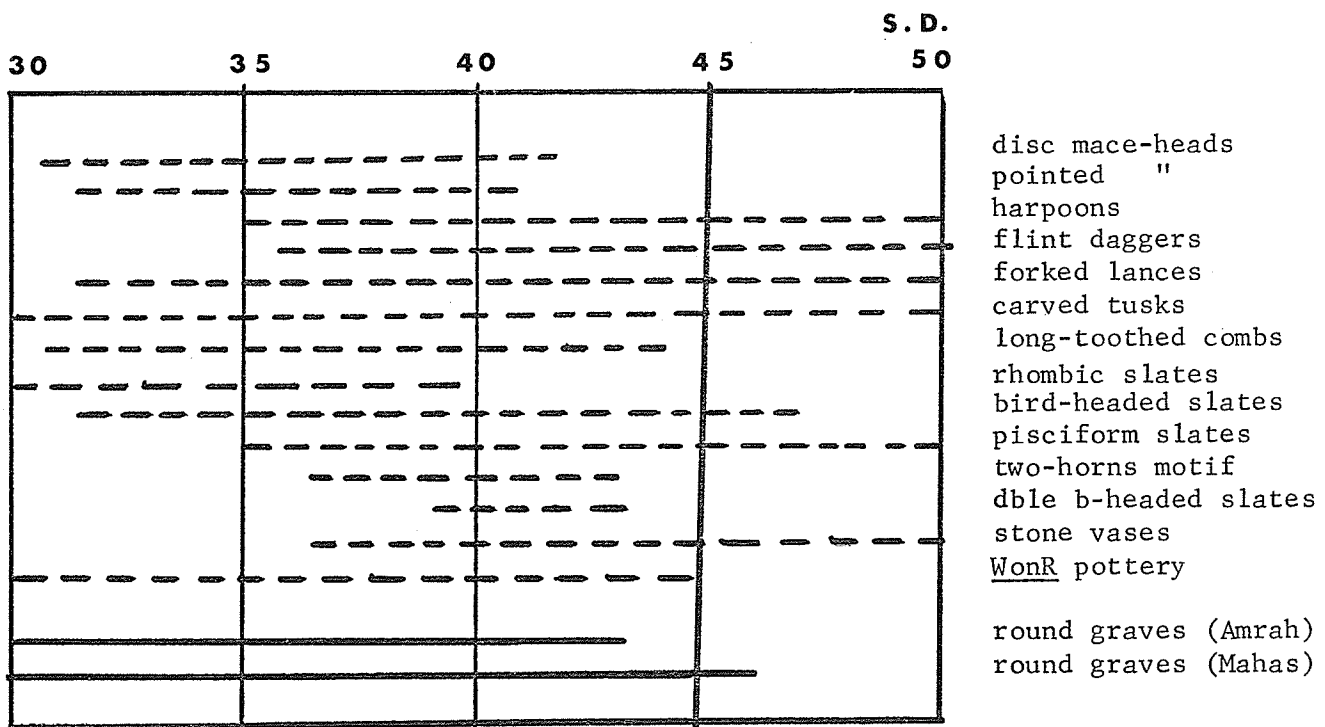
Figure 2.9 represents a seriation summary of the major artifact categories of the Naqada I period in terms of Sequence Dates.

Our knowledge of the Amratians/Naqada I folk is very meager. One of the most important sources of information has been the designs on White on Red pottery. Significant points have been discussed in the text. We know almost nothing of their language, social organization, settlement patterns, religious beliefs or the size of their population. Only the slenderest outline of the history of their society has been reconstructed. The people of Naqada I were distinct from the Badarians, while on a general cultural level they shared traits with them.

A unique clay model of a house from El Amrah suggests that the people lived in a single-story rectangular structure, built of pise with

wood-beam lintels and window frames. Taking the scale of the doorway as a guide, Randall-MacIver has estimated that the dimensions of such a house in reality would be about 25 feet long by 18 feet wide (Randall-MacIver and Mace, 1902: 42b). These dimensions bring to mind the longhouses of the Iroquois and the lineage houses of the Indians of the Northwest Coast of North America, both of whose ethnohistory is fairly well understood. We are far from justified in inferring a similar way of life for the people of Naqada I on the evidence of one house model⁶. These rectangular longhouses are very different from the small circular wattle and daub constructions of the Badarian period at Hemamieh. Were the Naqada I longhouses grouped in a cluster to form a village? around a religious centre or a shrine? or was their settlement pattern dispersed around a regional shrine? (see, for example, Sears, 1968). We do not know. It is known that the people were agriculturalists who also practiced animal husbandry. Their ability as potters was inferior to the skill of the Badarians in this regard. On the other hand, the craftsmen of the Naqada I horizon were highly adept at working hard stone. It is possible that the agriculturally-based economy freed the stonecutters from subsistence activities thereby enabling them to become full-time artisans.

Figure 2.9 - S.D. Seriation of Artifacts
from the Naqada I assemblages.



CHAPTER III

THE NAQADA II PERIOD (GERZEAN)

The culture which succeeds Naqada I has been named Gerzean after its type-site, El Gerzeh, which is located just north of the Faiyum and which was excavated by Wainwright (1912). In the present investigation of the archaeology of Upper Egypt in the light of modern work, the Gerzean culture will be studied in its Upper Egyptian manifestation under the name, Naqada II.

The important Naqada II sites in Upper Egypt coincide almost identically with sites for Naqada I. Additional sites containing Naqada II artifacts include Ma'adi in the north and Hu and Abadiyeh in the south along with a scattering of smaller sites distributed as far south as the First Cataract. The type-artifacts of the Naqada II culture are the following: more elaborate oblong and rectangular graves roofed with boughs and matting, Red on Buff painted pottery, lug- and Wavy-handled pottery, beautiful pressure-flaked knife blades and pear-shaped mace-heads. Sites from the Naqada II horizon have been thoroughly plundered anciently and in modern times and many artifacts that have been dated typologically to this period were obtained from dealers who preserved no records of the provenance of the specimens.

El Gerzeh: cemetery site, 288 predynastic graves, 9 from the 2nd Dynasty. Two types of burial, one large and roughly oval, the other smaller and more truly oblong. No instances of bough-and-matting roofing or of brick-lined graves. All were single burials. Usual orientation, although many cases of head to the north were found. Predynastic cemetery yielded pottery, one pear-shaped mace head of white limestone, one copper harpoon, one ivory vase. Iron

beads were found in two of the burials. 46 were wrapped in matting and there were instances of a cloth made from Rhamie (China Grass) fibre. No leather was present. Wainwright reports that dismemberment was probably practiced in accordance with the belief found in the Pyramid Texts that the limbs of the deceased would be restored ritually in the hereafter. Religious behavior expressed in some of the dismembered burials by wrapping the separated bones in some cases with cloth (forerunner of mummy wrappings). Pyramid Texts talk of restoration of vital organs and bodily functions; no archaeological evidence of canopic jars. Burial orientations showing the head/north orientation of dynastic times present (see also Badarian). Probable explanation is that the northern sites were under the theological influences of northern religious centres.

Archaeological Opinions on the Naqada II Period

Moving into the period known as Naqada II, the full force of archaeological uncertainty as it exists in predynastic research is encountered. Whereas sharp contrasts can be found between Badarian and Naqada I assemblages, there is not a sharp division between the cultures of Naqada I and Naqada II but rather a blending. In the present chapter we will be asking whether in fact there was a separate Naqada II "culture" at all. By the definition given above (Chapter I, n. 1), separate cultures would exist if distinct assemblages exist. What must be attempted in this chapter is to examine these differences and to assess whether the differences delineate what was in reality two different cultures or a single culture evolving across time and importing foreign trade goods.

Opinion remains divided over whether Naqada II came about as a result of foreign incursions or as a result of a protracted development in situ. The outright (multiple) conquest theory as it was originally stated by Petrie (passim) has been modified by other authors to a gradual infiltration of foreign populations who may have been identical with or

separate from the sources of Mesopotamian traits which are found in the artifacts of the Naqada II assemblages. Both the extreme and the moderate views constitute varieties of the Dynastic Race hypothesis. This hypothesis suggests that outsiders, coming into the Nile Valley at one time or another during the predynastic period, were directly responsible for the rise of the Dynastic Age. Holders of the belief in a Dynastic Race include: Scharff (passim), Sethe (1922), Hornblower (1927), Murray (1949: 124), Baumgartel (1965), Emery (1961: 30-31, 110-111) and Otto (1968: 16-17). Some advocates of the in situ argument have been (Wilson 1951: 39-40), Steindorff and Seele (1957: 13), Aldred (1965: 34), Arkell and Ucko (1965) and Kantor (1944: 135d-136a; 1952: 250d; 1965).

The division as it exists among Egyptologists of the present day indicates clearly that the issue is not yet settled (c.f. Derry, 1956; Engelbach, 1943). My own position at the moment is that Naqada II developed in Upper Egypt out of Naqada I. I hope to show that the "foreign" traits in Naqada II can be accounted for without recourse to conquest or to mass movements of populations. It will be argued on the basis of observed phenomena that the Naqada II assemblage is not greatly different from that of Naqada I and that it is possible to see the Naqada II assemblage as the culture of Naqada I with a veneer of foreign elements while the cultural substratum remains relatively unchanged. The observation that Naqada II sites in Upper Egypt coincide with sites of the Naqada I horizon suggests that the culture of Naqada II expanded through the settlement, trade and communications network of the Naqada I period. Separate sites located in the north and in the far south reflect the

enlargement of Naqada II beyond the range of the preceding period and if the two were indeed the same culture, what is shown is a continuous process of societal development.

Baumgartel, following Scharff, believes that the Dynastic Race hypothesis is necessary to account for the presence of a strong Semitic element in the earliest forms of the Egyptian language for which written records exist. (see Baumgartel, 1960). Trade contacts are really not capable of explaining how this foreign linguistic content could have come to pervade the non-Semitic language of Upper Egypt so thoroughly. It could be assumed that there was a "royal" language which found written expression and that it was this "royal" language which became Semiticized while the vernacular retained its original character. However, there is no evidence to support such an assumption, nor have archaeological investigations turned up any signs of a permanent settlement of foreign craftsmen living in Upper Egypt during the predynastic period. Therefore, the presence of Semitic influences in the earliest written language of Upper Egypt constitutes the most important weakness in any hypothesis which proposes a continuous cultural development in Upper Egypt from Naqada I to Dynastic times. Until my own knowledge of the language increases greatly, I am not capable of appreciating the full extent of this weakness. It is the purpose of this chapter to show that archaeologically we are on more solid footing and that a position advocating the development of Naqada II from Naqada I can be defended on typological grounds. Meanwhile, it is hoped that glottochronology studies will cast new light on the problem of the Semitic element in the language of the earliest dynasties.

The hypothesis of a northern origin in the northeast Delta/Sinai Peninsula region for the Gerzean culture was first advanced by Alexander Scharff on archaeological results obtained from excavations carried out at the predynastic cemetery at Abusir el-Melek (1926a; 1926b; 1927). Scharff based his conclusions on specimens of Wavy-Handled and Red on Buff pottery which have been said to have had forerunners in the Ghassulian horizon of Palestine (infra.). Scharff's hypothesis was strengthened by an earlier linguistic study of the hieroglyphs for "West" and "East" by Kurt Sethe (1922). Scharff's argument can be countered by evidence to the effect that while Wavy-handled jars rightly may have originated in the Ghassulian (c.f. Kantor, 1965, Figs. 3,4; Kaplan, 1959, Fig. 1), they do not date in Egypt to the beginning of Naqada II but appear later on in the sequence. This does not preclude the possibility of earlier sites being found in Lower Egypt, however. In the south, at Hemamieh, Hu, Abadiyeh and Naqada, typologically earlier forms of Red on Buff pottery have been found. This is evidence that the Naqada II horizon is older in Upper Egypt and the likelihood that Naqada II originated there becomes possible once more.

POTTERY

The criticisms that have been made of Petrie's Sequence Date seriation are recognized and wherever possible attempts have been made to introduce the conclusions of modern research (c.f. Kendall, 1963) to reduce error created by the old form of the scheme. In the absence of an exhaustive re-study and reclassification of all predynastic materials, the present study in the main must accept the guidelines furnished by Sequence Dates.

The general ceramic history of the Naqada II period is as follows: White on Red (WonR) ceases and Black-topped varieties (BR) decline across the period. Rough (R), Polished Red (PR) and Red on Buff (Rb), which were present to an increasing degree in sites of the Badarian and Naqada I (Amratian) horizons, reach their greatest frequencies during Naqada II. The data from El Amrah is given in Figures 3.1 and 3.2; data from Armant is given in Figure 3.3.

Figure 3.1 shows that Wavy-Handled jars are found in their greatest numbers after S.D. 60. It is this type that has been traced to Palestinian prototypes (Scharff, 1926a; passim). That Wavy-Handled ware did in fact originate there is fairly well established (Petrie in: Petrie and Quibell, 1896: 38d-39a; Baumgartel, 1965; Kantor, 1965). However, since specimens are rare at the beginning of Naqada II, they cannot be support for the argument that Palestinian elements were necessarily the instigators of Naqada II. Similarly, the absence of an entire configuration of Ghassulian artifacts in Egypt argues that what few artifacts from this horizon that have been found there are in fact trade items and not evidence of a foreign invasion. If there had been an invasion followed by permanent settlement, one would expect to find more features of Ghassulian everyday life represented in the artifact record than have been reported.

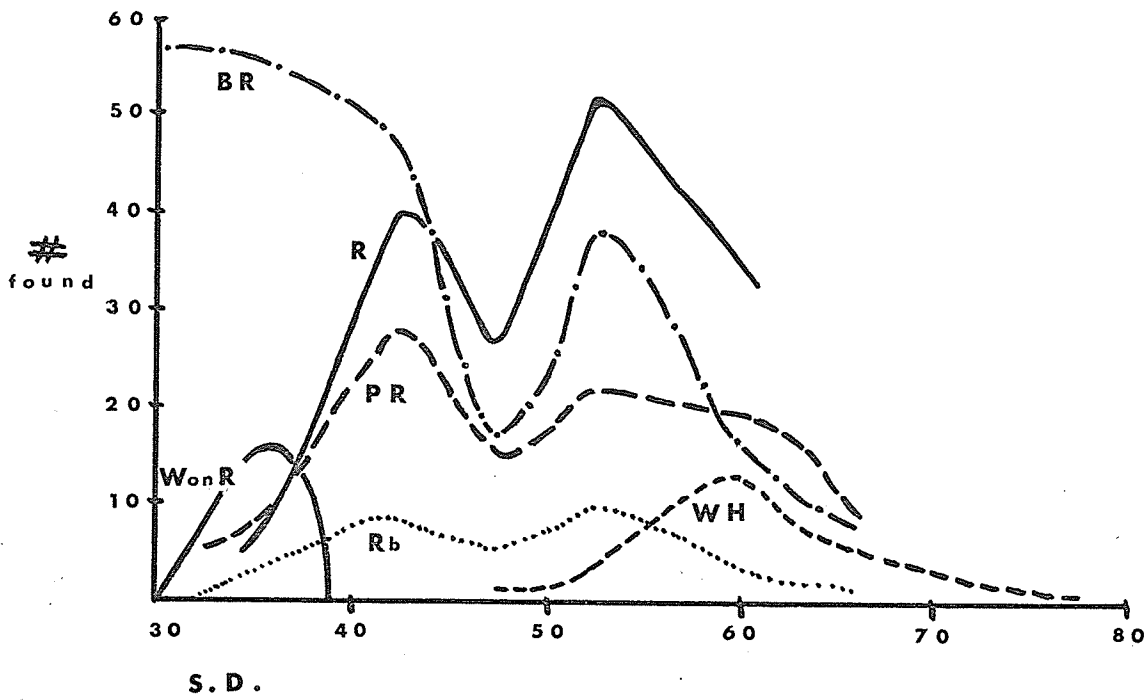


Fig. 3.1 - Frequencies of pottery types found at El Amrah¹.

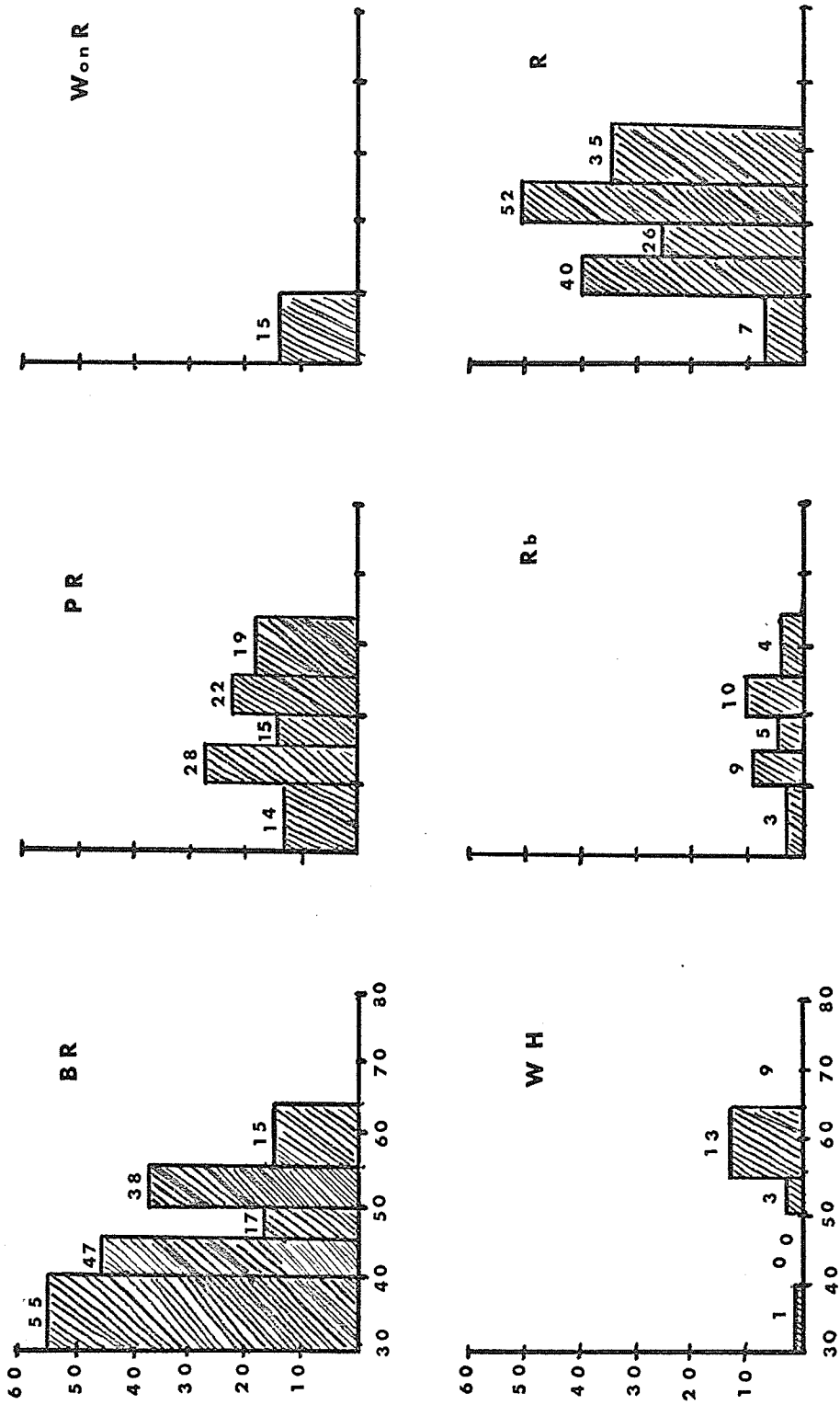


Fig. 3.2 - Frequencies of pottery types found at El Amrah (separate).

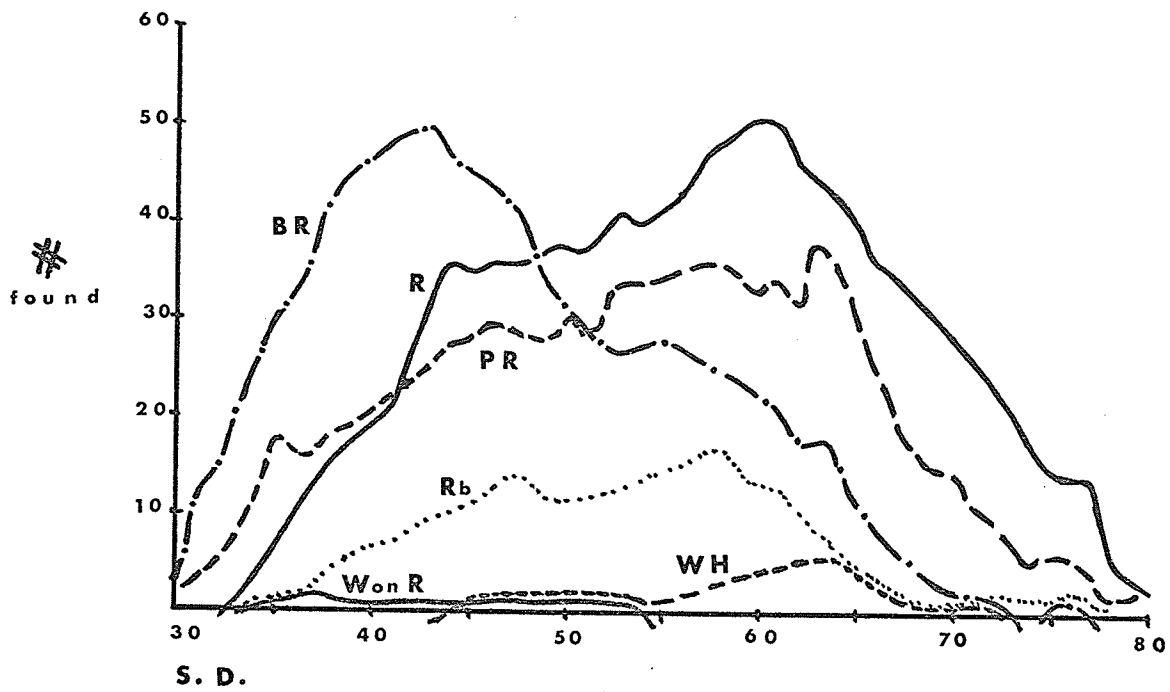


Fig. 3.3 - Frequencies of pottery types from Armant (the cemetery².)

The intersection of the curves for WH and Rb is significant because it shows that the climax of Wavy-Handled pottery comes late within the time range of Red on Buff painted forms. The relationship of these same two types in the Armant assemblage is equally striking (Fig. 3.3). WH peaks later than other forms of Rb and they decline together in the S.D. 64-73 range. It can be argued on the basis of the graphed data that Wavy-Handled pottery is a type that Egyptian craftsmen first imitated in its entirety and later modified in accordance with native forms: barrel-shaped and shouldered jars with horizontal cylinder handles.

Similar red-painted motifs appear on Egyptian imitations of Palestinian types and types from Mesopotamia. It is conceivable that the plain Ghassulian 'Cream Ware' of Palestine (Amiran, 1955) was thought to be in need of decoration by Egyptian artists accustomed to the painted pottery tradition that grew up during Naqada I. In this way, genuine imports from Palestine, as well as imitations made by Egyptian potters, could have become decorated in Egypt. Advisors have informed me that re-firing after the application of designs to previously fired pottery would be indistinguishable from a firing that had taken place when the pot was made. Thus, a careful chemical analysis of the clay and a correlation with the source of the clay will reveal where a vessel was made, but the data so gained will not necessarily imply that the red-painted motifs were put on by the manufacturer. The common denominator in pottery forms of the wavy-handled and lug-handled types are the red-painted motifs. However, as Fig. 3.4 reveals, there does not appear to be a separate pattern associated with each type.

The first important step in the analysis of predynastic pottery by raw materials was taken by O. H. Myers in his classification by wares. The term ware denotes material and mode of manufacture. Myers' first category, Nile Ware, takes the use of mud from the river bank as its criterion for defining this ware. Sometimes sand has been added for tempering, but never chaff (Myers in: Mond and Myers, 1937-8: 50). This pottery is porous and is usually black in cross-section. Included in Nile Ware are Black-topped Brown and Red (BB, BR), Polished Red (PR), "Fancy", White on Red (WonR), All Black (AB) and Black/Incised White (BIW). In other words, Nile Ware takes in the ceramic types of the Badarian and Naqada I cultures. By wares and by the mode of firing at a relatively low cone temperature, the pottery of the Badarian and Naqada I periods show more similarities inter se than with the wares produced during Naqada II.

Myers' second category is Desert Ware, based upon the criterion of a mixture of clay and sand which could be fired at a high cone temperature without disintegrating. Forms in this category are imitations of stone originals (ibid.). Included here are Red on Buff (Rb), Wavy-Handled (WH), some Late ware (L) and a few late Naqada II Polished Red bowls (PR).

His final two categories are Chaff Ware and Grit Ware, named for the method of tempering the Nile mud from which the containers are made. Chaff Ware is only lightly fired; Grit Ware is tempered with grit, shell, or chips of flint and is better fired to produce a hard, though porous, vessel. Chaff Ware includes Late (L) and some Rough (R). Grit Ware takes in the remainder of Rough (R) and all of Brunton's "Town Pottery" (Bad. Pl. XLVI, T10-12).

What must be done by future investigators is to perform chemical analyses of the sort that have been carried out on obsidian specimens, and to correlate the findings with clay deposits in Egypt and Palestine. It should be borne in mind that the body of the pot and the motifs on its outer surface may have been of separate origins.

Red on Buff (Rb), (Fig. 3.4, 1-34). Previously it was believed that Rb originated in some unknown region and diffused into the Nile Valley culminating in an invasion by its makers who established themselves as the dominant culture there. Rare Rb sherds found in Badarian and Amratian associations were explained as the earliest diffusions from this unknown centre. This centre has never been found, while there is evidence on the other hand that can explain the presence of Rb in Upper Egypt. If the older supposition is correct that Rb did diffuse into Badarian and Naqada I assemblages from another centre, then whether this centre was Naqada or elsewhere, it still follows that the recipient cultures must have been contemporary with the donor culture. If Naqada II developed at or around Naqada from Naqada I as I have proposed above, then late Badarian may well have been contemporary with the entire White on Red sequence (i.e., with Naqada I). Further support is found in Kaiser's arguments that the Badarian and Amratian cultures were contemporary in their own areas (1956: 96-97).

So far the phenomenon of painting in red together with the form of the vessel on which it appeared has been considered and it has only been hinted that the two trait clusters may be independent and not bound variables. The likelihood that the buff pottery of Naqada II originated

in the 'Cream Ware' of Palestine has already been mentioned. It has not yet been possible to trace the evolution of buff pottery with a high degree of accuracy in Upper Egypt. This negative evidence has been taken by many to mean that its inception must be outside Egypt. The technique of a) painting and b) in red are entirely possible traits in view of Naqada I WonR painted pottery. It has been observed that, chronologically, designs on Rb show patterns of hills and animals before people and the long ships (Petrie, 1920: 16; however, compare Figs. 2.4 and 3.4). The motifs of solid dark triangular hills, animals and the Z-sign found on Rb vases show striking parallels with designs from the cemetery at Harappa (cover of Allchin and Allchin, 1968). The motif of the backward-looking gazelle has been adopted by Bibby as the type-motif of the Bahrain civilization (1969)³.

The problem is a many-sided one insofar as the separate traits of vessel form, background coloration, painting (technique and style) and motifs may have come from widely separated sources and were brought together under a particular set of stimuli to produce the distinctive Rb pottery of Upper Egypt. What seems to be implied is that Upper Egypt in the second half of the predynastic period was a major crossroads of international trade. Why this should have been so will be discussed in a later chapter. On the topic of the decoration of Rb pottery, however, recently an entirely new line of speculation has been opened. A pot bearing a spiral design painted in red on a buff background has been discovered near Udon Thani in northeastern Thailand and dated to about 4700 B.C. (Solheim, 1971: 338a). This date is not outside the range of

predynastic Egypt. The Unification has been assumed to have occurred about 3200 B.C. (without C14 dates) and it is not impossible for the predynastic period to have gone on for a thousand years earlier.

Forms of Rb Pottery. Three principal forms of Rb pottery recur in the Naqada II assemblages: squat globular vessels, barrel-shapes and shouldered forms⁴. The general trend across the period is from globular, to barrel-shaped, to shouldered, although specimens of all three types can be found throughout. One explanation is that the squat forms are ceramic imitations of stone vases. As techniques for boring out stone vases improved and became more efficient, deeper vases could be fashioned and the pottery copies reflect this development.

Wavy-Handled forms and forms with three or four lug-handles are also found in the Rb style. Rows of triangular hills, parallel bands of wavy lines and flamingoes (?) form a cluster of decorative traits associated with the latter vessel form, though not exclusively. Kantor has identified the lug-handled jars as belonging to the Protoliterate B-C phases of lower Mesopotamia (1965) where similar motifs on jars of this shape are not found. The motif of flamingoes has been said by many Egyptologists to be a trait representing the Delta of northern Egypt (Petrie, 1920: 20c). Although this position poses new difficulties for finding the origins of this pottery type in Upper Egypt, it does support the thesis of independent variation between vessel form and style of motifs. The most logical route by which Mesopotamian pottery could have reached Upper Egypt is not via the overland route along the Tigris and

Euphrates caravan roads (Map 4, Chapter V) but by sea by way of the Persian Gulf, along the Hadhramaut and up the Red Sea to Kosseir. The uniformity with which Naqada II motifs appear on Wavy-Handled pots (of Palestinian origin) and on lug-handled pots (of Mesopotamian origin) shows how these foreign types were assimilated with the native barrel-shaped and shouldered vases of Upper Egypt.

Wavy-Handled (WH), (Fig. 3.5). The significance of Wavy-Handled pottery today, aside from the Palestinian origins controversy, is primarily historic. By tracing the changes that occurred (rather the devolution) of the wavy handles, Petrie was able to arrive at the seriation on which his scheme of Sequence Dates is based (1899). The danger in using sub-seriations within a larger sequence is that, without fixed markers, minor sequences can become reversed. The technique of seriation will enable a collection to be ordered, but it does not say which is the older and which is the more recent end of the sequences. The proper arrangement of relative dating procedures requires stratigraphic support and absolute dates.

In the case of Wavy-Handled pottery, the older end was determined through association with WonR pottery, the type-marker for Naqada I. The problem is that these contacts may have been as late as S.D. 45 and not around S.D. 40 or even earlier as suggested originally (see Fig. 3.3). Subsequently, Wavy-Handled jars do not attain their greatest frequency until about S.D. 60, a span of 20 sequence dates from the point at which Petrie ended Naqada I. Even to do as the present investigation does and to extend Naqada I to S.D. 45 (WonR, Fig. 3.3), the gap between the

beginning of the period and the climax of WH is still 15 Sequence units. This argues against an invasion of the Wavy-Handled Pottery People's being responsible for beginning Naqada II. Instead, what is suggested is either increasing trade between the two culture areas, or increased imitation of the foreign traits by Egyptian potters, or both.

Figure 3.5 shows the evolutionary trend of Wavy-Handled jars beginning with broad forms on which the wavy handles are located low down on the sides of the vessel. With time, the wavy handles move up the sides until they reach the shoulder. In the latest, most elongated forms, the handles diminish in size and prominence until all that remains by the First Dynasty is a painted or incised line around the neck of the container. Wavy handles have been combined with the popular barrel and shouldered vessels often in addition to the horizontal cylinder handles that are usually found on these types (Fig. 3.5, 7, 10). It is perhaps significant that wavy handles do not occur on the lug-handled forms (Fig. 3.4, 15; compare with motifs on 3.4, 14). It will be recalled that WH and Rb make up Myers' second category, Desert Ware, along with a few late Naqada II Polished Red bowls and some specimens of the type known as Late ware.

Rough (R), (Fig. 3.6, 1-9). The career of Rough (R) parallels that of Rb and PR in Figs. 3.1-3.3. This type is similar to Late ware (L) since both use Nile mud as a raw material. The majority of Rough specimens have been tempered with chaff which carbonized during firing and which has been leached away subsequently, leaving a coarse and porous matrix.

Rough ware may or may not have a light red slip whose color varies due to imperfect firing. The usual range of colors found in Rough pottery is grey, brown and red-to-pink. The forms of Rough are cooking pots, round-bottomed bottles and the elongated ash jars which are found in increasing numbers in well-to-do graves late in Naqada II. The 'roughness' of Rough pottery is due to the absence of any polishing or burnishing of the outer surface and the forms seem intended for common everyday usage and are a cheaply produced ware.

Rough brown pottery was one of the principal ceramic types associated with the Badarian horizon. Since Rough peaks late in Naqada II, several explanations are possible. The first is that the type was acquired by the people of Naqada II from the Badarians; the other alternative is that Rough diffused from the centre of Naqada culture to the Badari district. The former implies a genetic continuity between the Badarian and (therefore later) Naqada horizons. The second suggestion supports the belief that the two cultures were contemporary⁵.

Late (L), (Fig. 3.6, 10-15). Late pottery is pink to salmon-colored, likewise made of Nile mud but is tempered with grit, sand or bits of shell instead of straw or chaff. Specimens are harder than the Rough type but share with it the traits of a rough outer surface, overall crudeness of manufacture and imperfect firing.

Polished Red (PR). The PR pottery of the Naqada II period represents a third stage in the history of this ceramic type. In the Badarian horizon, PR has a dark red color produced by haematitic slips. In Naqada I, PR

takes on a purplish, plum-red coloration. The PR of mid Naqada II is a lighter red than the preceding varieties and is often burnished vertically. In this type are found reproductions of foreign spouted vessels (see Bad, Pl. XXXVIII, 58b2, 58 1, 58q). These resemble stone and pottery artifacts recovered from later period sites and are quite a typical Naqada II forms. Small metal pots with a spout like a teakettle have been recovered from tombs of the Old Kingdom (Emery, 1961, Pl. 43a). These metal forms survived throughout the historic period as ritual vessels for the pouring of libations (see Otto, 1968, Pl. 13 top, and compare to examples illustrated in Emery). There are also vague resemblances between the spouted PR forms and later hook-nosed pots (schnabelkanne) of Early Minoan II-III horizons in Crete (Hall, 1914, Figs. 3.5).

A trait that does not occur in the predynastic assemblages of Egypt is the vertical pitcher handle that joins the shoulder and the lip of a container (see Kantor, 1965, Fig. 5). Pitcher handles do occur from early dynastic times onward.

STONE VASES

The same form categories of globular, barrel-shaped and shouldered occur in the stone vases of Naqada II as in the ceramics of the period (compare Figs. 3.4 and 3.7). Rare cases in which wavy handles are reproduced in stone do exist, but this trait is restricted more exclusively to pottery.

Petrie's explanation of the origins of Naqada II is that an invasion of people from a region where clay for pottery was scarce occurred.

Due to the lack of clay in their homeland, he says, these mountain people had reached a high degree of sophistication in the manufacturing of vases from stone (1920: 16d).

In the preceding chapter, evidence has been presented to show that a highly developed stoneworking culture developed in the neighbourhood of El Amrah in the Naqada I period and that the roots of this culture are very old in that same place. It is not unreasonable to see the spread of stone craftsmanship in Naqada II as the proliferation and perfection of techniques initiated by artisans of Naqada I. With more efficient tools for boring into stone, the spread of this type of container could have been very rapid.

It is well known that successful innovations often must wait until the technology of a society has developed sufficiently to make adoption of the innovation feasible (see E. M. Roger, 1962, Diffusion of Innovations, New York: The Free Press). Take for example the case of Charles Babbage who, in the 19th century, invented the "Analytical Engine" an ancestor of the modern electronic computer. Babbage's machine was to be operated mechanically by a system of gears and toothed wheels. The problem of construction was overwhelmingly complex in the light of the technological limitations of the 19th century and in the absence of electronic circuits. In the last few decades since the invention of the vacuum tube and the solid-state transistor, the machine has been built and the operating time reduced to a fraction of what it otherwise would have been. Similar boom periods have occurred in antiquity with the invention of the

trireme, the ass- or horse-drawn war chariot, phalanx-fighting, etc.

The stonecutting technology of Upper Egypt prior to the floruit of stone vase making in Naqada II had been started in the Naqada I horizon. At El Amrah graves with shallow recesses hollowed out of the bedrock first appeared c. S.D. 38 (late Naqada I). Naqada I is also the archaeological horizon of Upper Egypt that is associated with ground and polished stone artifacts (Chapter II). In Naqada II, no essentially new methods of working stone appear; what we see in the assemblages is rather a refinement of Naqada I techniques and ideas. Ripple-flaking is an outstanding Naqada II trait, but flaking is not new.

By the end of Naqada I artisans were technically capable of working even the extremely hard mantle rocks: granite and basalt⁶. In Naqada II times it only remained to broaden the number of types of stone in use, since not even the opportunity to progress into the use of harder stones remained. On the topic of further rapid developments in Egyptian stoneworking, it has been estimated that the great pyramid of Khufu was erected within a mere 125 years of the first free standing stone structure in Egypt (Wilson, 1951: 70). It is obvious, therefore, that stoneworking had reached an advanced stage by the Old Kingdom.

Lucas has concluded on different grounds that Petrie's statement and others like it which name the eastern desert region as the homeland of the makers of stone vases are contrary to the facts. The distribution of the types of stone from which Naqada II stone vases are made reveals that the greater part of these stones originate in the Faiyum, in the Nile Valley cliffs, and at Aswan in the region of the First Cataract

(see Map 3, Chapter V). Only two marble and porphyritic rock are known to occur in the eastern mountains (1930: 210-211). It follows, therefore, that both the requisite skills and the raw materials to produce stone vases were present in Upper Egypt in the Naqada I and II horizons. The existence of identical shapes in pottery is explained as attempts to manufacture less costly replicas of the laboriously made and no doubt expensive stone vessels.

Squat forms and tubular forms have been seriated together as early as S.D. 38 (Petrie, 1920: 35). By the Sequence Date system used by Petrie in Diospolis Parva, the range of distribution assigned to an artifact can be longer but not shorter (Wainwright, 1912: 3b). On stylistic and typological grounds arising from the preceding analysis of WonR pottery (Figs. 2.3, 2.4, 3.1, 3.2, 3.3) the proposition has been advanced that the boundary of Naqada I should be raised to at least S.D. 45. This proposition is also recommended by the survival of the round Naqada I grave type to S.D. 45 (infra. Fig. 3.11). Thus there is a great deal of data to support the conclusion that Naqada I and Naqada II overlapped by as much as seven Sequence Date units or more. I would suggest that this is a minimal statement of the cultural relationships between the two periods. On other grounds, it has been argued above that the Badarian and Naqada I sequences may have been contemporary and this was supported by Kaiser's work (1956: 96-97). What emerges is that a good portion of the early Naqada II stonework and pottery falls within the time period of Naqada I and serves to lend credence to the belief that the former was the evolutionary product of the latter.

A problem with assigning a culture period title to an assemblage is that the name becomes associated forever after with that assemblage and the danger is that investigators will be led to think in terms of divisions that are not real. It is true that a researcher can make cuts where he pleases in the time continuum and that a single society can manifest quite different artifact assemblages at two different points in time. The danger lies in thinking that there are two separate (foreign) cultures present. Where analyses must be conducted by means of relative chronologies only, the difficulties are compounded. This is analogous to the distortion introduced by excavation in set levels rather than by culture layers. The transition zones that arise lead to seeing more cultures present than was the case in reality.

BURIALS

No less than five distinct burial types have been identified for the period from S.D. 40-80, and these types have been observed to recur in all of the major predynastic sites in Upper Egypt. The evidence to be presented here is taken from the cemeteries at Mahasna, El Amrah and Naqada.

Mahasna

The earliest grave-type found at Mahasna is the round shallow type called Class A by Ayrton and Loat (1911). These are of Naqada I date and have been discussed in the preceding chapter. The five types which concern us here are Classes B through F.

Class B graves are roughly oval or oblong in shape and are unroofed. Their distribution in the seriation is from c. S.D. 40 to 80. They form the most common type of burial throughout the predynastic period. They resemble Naqada I burials in that the body is contracted loosely, wrapped in matting and oriented with the head pointing south and the face directed toward the west. Some oval graves have been found as late as the First Dynasty and a couple of rare cases show signs of having been roofed with boughs and matting. This simplest type of burial underwent little evolution during Naqada II and may be seen to have been used by the poorest members of the population or at least the average person.

Class C burials exhibit the usual traits of position and orientation. They possess the additional feature of a four-sided enclosure of unbaked clay around the body. The top and bottom of this "coffin" were of matting. Only two burials of this type are reported from Mahasna.

Class D burials are graves lined with wooden planks. The planks may line the walls of the excavation. More often they stand close around the body. Graves of this type are larger than the B and C types and class D burials usually show traces of a pole and matting roof over the deceased. Class D graves tend to become rectangular and large enough to contain a number of pots and other funerary artifacts.

Class E graves are rare: only one was found at Mahasna. In this type the grave is oblong with mud-plastered walls into which a row of reeds had been pressed.

Class F are the latest graves in the sequence and consist of rectangular pits lined with brickwork. Only five were found at Mahasna,

and none were intact. The brick lining was one brick thick with an overlying plaster of mud. The chamber was lined with boards in one case, but the general practice was to limit the wood lining to a boxlike enclosure around the body. Class F graves are the most elaborate of all. The evolution of this type can be traced from round (A) to oblong (B) to wood lined (D) to brick walled and wood lined (F). No rectangular brick lined graves are reported from El Gerzeh (Wainwright, 1912: 4d).

El Amrah

At El Amrah classes A and B recur along with some new types. The first of the new traits is a recess cut in the rock so that a ledge is formed along one side of the grave and the body lies at a slightly greater depth. Along the ledge various grave goods, mostly pottery, were arranged. The second new grave type has the rock recess developed still further but now there is the further addition of a four-sided coffin which may be of baked clay, unbaked clay or wood. It is not difficult to see in these rock recessed graves the forerunners of the shaft burials of the earliest dynasties.

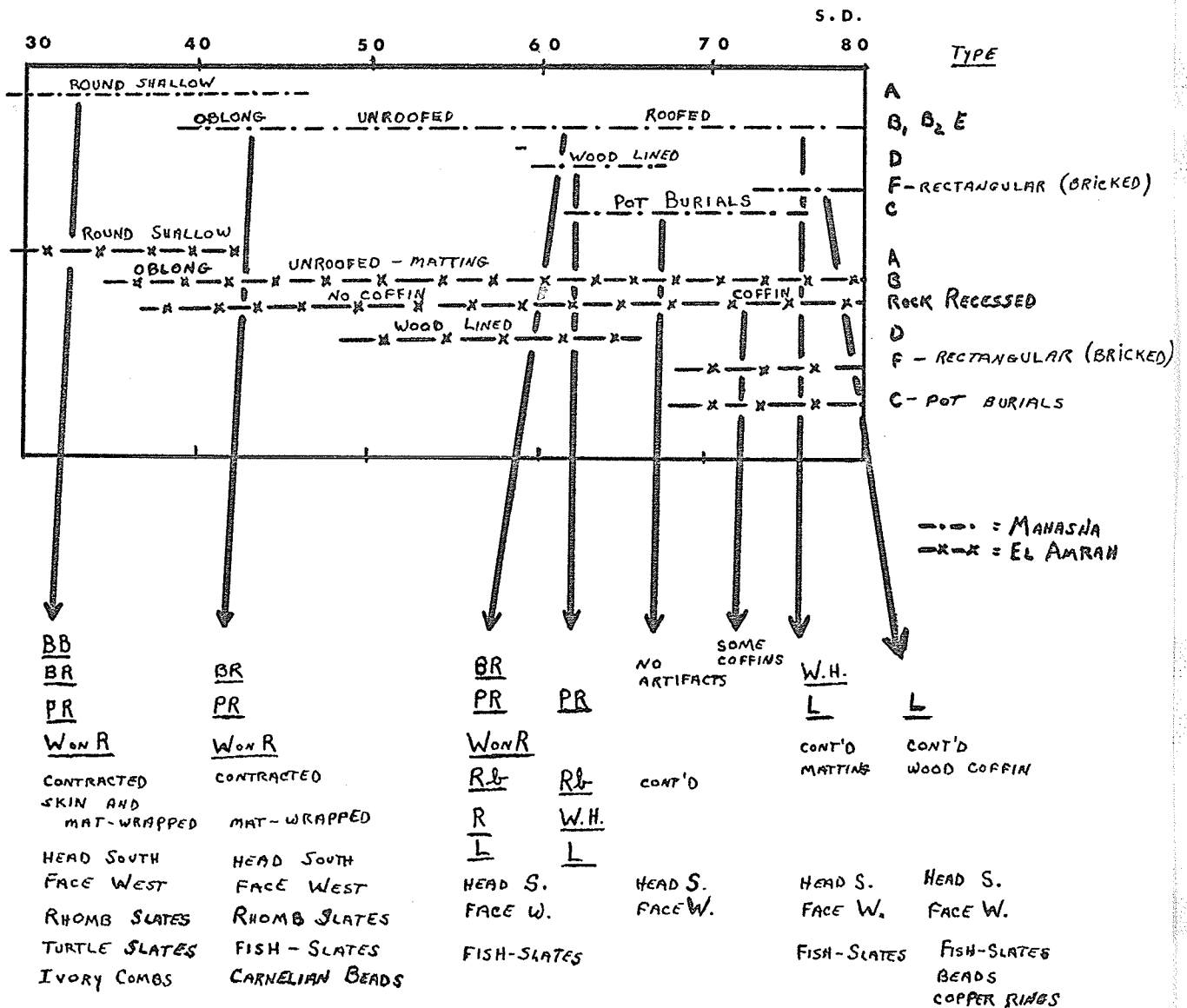
The third new type of burial at El Amrah are pot burials in which the body lies in the usual contracted position under a large inverted basin of thick, well-baked red ware⁷. Only five examples of pot burials occur at El Amrah. No artifacts are found in pot burials although a few instances of ceramics associated with this type are reported from Abydos. Typologically, the predynastic pot burials are contemporary with the rock-recessed graves with the four-sided pottery coffin and come from very late in the Naqada II sequence.

Randall-MacIver distinguishes four types of rectangular brick lined graves depending upon whether partitions divide the chamber into two, three or more compartments. The brick lined graves at El Amrah vary only in their degree of elaboration; their shape puts them very near in time to the mastaba tombs of the first dynasties which combine the traits of a deep shaft and a number of separate compartments^{8,9}. The contents of the rectangular brick lined graves consisted primarily of the Late variety of pottery and some stone vases.

Naqada

The Naqada cemetery recapitulates the burial types already mentioned except that the elaborate chambered brick lined tombs that occur at El Amrah are not found. The evolution from round to oblong to rectangular is, however, well demonstrated and the beginnings of underground galleries appear, using brick partitions to divide the central chamber into compartments (compare Petrie and Quibell, 1896, Pl. III, 8 and Michalowski, 1969: 574, Chart IX). In the predynastic cemetery at Naqada the first attempts to combine the vertical shaft and side compartments are found. The above section is summarized in Fig. 3.8 to follow.

Fig. 3.8 - Naqada II burial types and their associated artifacts



Posture. Throughout Naqada II, regardless of grave type, bodies are laid in the loosely contracted position. This position contrasts with the full-length burials of the dynastic period. It may be that full-length burials resulted from the increasing usage of coffins in the late pre-dynastic sequence.

Orientation. Orientation of Naqada II burials is with the head pointing south and the face turned towards the west (see also Table 1). In these particulars, the culture of Naqada II shows its cultural similarity to the funerary practices of the Badarian and Naqada I folk. The normal position for burials in the Early Dynastic period is with the head pointing north and the corpse being laid on its left side (Wainwright, 1912: 6a).

Preservation. Nowhere in the Naqada II burials are there any signs of embalming or of mummification. One instance has been reported from El Amrah in which the bones were covered with a black substance resembling pitch. Randall-MacIver says that this is the only example from all the burials at El Amrah of anything approaching artificial treatment of the body (Randall-MacIver and Mace, 1902: 11c).

Summary

In this section on the Naqada II burial types it has been necessary to discuss funerary traits in detail to show the evolutionary trend and general cultural homogeneity that can be traced unbroken from Naqada I to the First Dynasty. The question that must be asked is 'where in this development is there a discontinuity that could mark the arrival of the

Dynastic Race?' The sequence is integral, and no such discontinuity exists. Thus there is no archaeological support for the Dynastic Race hypothesis in Upper Egypt.

Round shallow graves containing WonR pottery have been dated to Naqada I. At about S.D. 40 two new grave-types appear: oval shaped and rock-recessed. By the extension of the Naqada I period to S.D. 45, these so-called new types fall within the late stages of Naqada I¹⁰. The oval and rock-recessed graves begin about the same time and continue to the First Dynasty. The rock-recessed variety gradually assumed a more and more rectangular shape. Since mat-wrapped burials continued to exist alongside primitive wooden and pottery coffins, the hypothesis of an emerging stratified society may be held out. Subsequent developments in ledged, walled, brick lined and multiple chambered tombs all derive from the early rock-recessed type. The idea of a coffin gradually replaced mat-wrapping as the conventional method of enclosing the corpse.

The facts of the predynastic burials can be interpreted consistently without recourse to the Dynastic Race hypothesis. The evolution of grave forms in Upper Egypt is a process of adding new traits to a basic grave type by a people whose technical skills were becoming steadily more advanced. The fact that such traits as posture, orientation and mat-wrapping are shared across the predynastic period indicates the cultural homogeneity of the inhabitants of Upper Egypt. This will be shown to exist also in other artifact categories such as flint implements, tools and weapons.

CHIPPED STONE

The flint implements of everyday use have been poorly reported from the Naqada II period. The attention given to the more spectacular flint types like the ripple-flaked knife blades is one reason. Huzayyin's analysis of the flint industry from Armant is the chief source for what follows on the common categories of flaked artifacts (1938).

The predynastic settlement at Armant has yielded the second stratified site of Upper Egypt. The Sequence Dates for the strata are the following: Level I, 57-78; Level II, c. 40-57; Level III, 35-c. 40. Levels I and II are our objectives here. Straight-edged flaked axes began in Level III (the oldest) and become most numerous in Level I (the latest). The flaked axes likely served as some sort of agricultural implement, probably hoes for breaking clods. In the uppermost layer a curious core-tool also becomes popular. Forms of this type are rounded at one end and pointed at the other. The narrow neck would not have stood up to violent usage and the suggested function of these forms is that of a dibble for making holes in the earth to plant seeds.

Arrowheads decrease in frequency from the oldest to the most recent layers and spear points increase in numbers. Bows had been known and used as early as the Faiyum Neolithic. Bows are shown in hunting scenes on WonR pottery, on the Lion Hunt Palette, and as a weapon of warfare, the bow lasted until Roman times. The decreasing numbers of arrowheads in the Armant site are taken as an indication of the declining importance of hunting in the subsistence activities of the people of Upper Egypt as agricultural practices became more refined.

Flint knife blades (Fig. 3.9, 1-3). The large parallel-flaked blades that are taken along with Rb pottery as a major type-artifact of the Naqada II period can be shown to have roots in the grinding-and-flaking technology of Naqada I. Like the manufacture of Naqada II stone vases, ripple-flaked knife blades represent only an elaboration of style over flaked artifacts from the Naqada I horizon.

Knife blades were made in Naqada I times by trimming a piece of chert to the approximate size of the finished knife. The blade was then reduced in thickness by being ground on both sides. The final step was to remove flakes from the ground surfaces. In Naqada II, this technique consisted of removing long, narrow flakes across the width of the surface by means of pressure. The finished form has a row of these parallel flake-scars (Fig. 3.9, 2, 3), which produces the visual effect of a rippled surface.

The technique of grinding and flaking was also used in the manufacture of forked 'lance-heads' which were discussed in the previous chapter. This artifact type also survived into Naqada II assemblages (Fig. 3.9, 4, also Fig. 2.8, 7-10). The enigma of these specimens is their usage. Had they been hafted at the forked end, there would be no difficulty interpreting them as lanceolate projectile points. Their function as a piercing weapon would be plain. Instead, there is evidence from clay models and from a few specimens wrapped with cord that they were hafted at the foot-end of the Y. Between the arms of the Y the edges have been greatly retouched to form a minute denticulated cutting edge. Fig. 3.9, 4 is deliberately left blunt at the foot-end. It does

1. Naqada Pl. XXXV, 67a
2. Naqada Pl. XXXV, 67c
3. Bad. Pl. XXXIX, 36j
4. Bad. Pl. XL, 43e
5. Bad. Pl. XXXIX, 8k
6. Bad. Pl. XXXIX, 8q
7. Amrah Pl. XIV, D53d
8. Naqada Pl. XXXIV, 41
9. Bad. Pl. XL, 43d2
10. Amrah Pl. XIV, D49
11. Naqada Pl. XXXIV, 43
12. Bad. Pl. XL, 43d
13. Bad. Pl. XL, 41e
14. Naqada Pl. XXXIII, 2
15. Naqada Pl. XXXIV, 45
16. Naqada Pl. XXXIV, 47

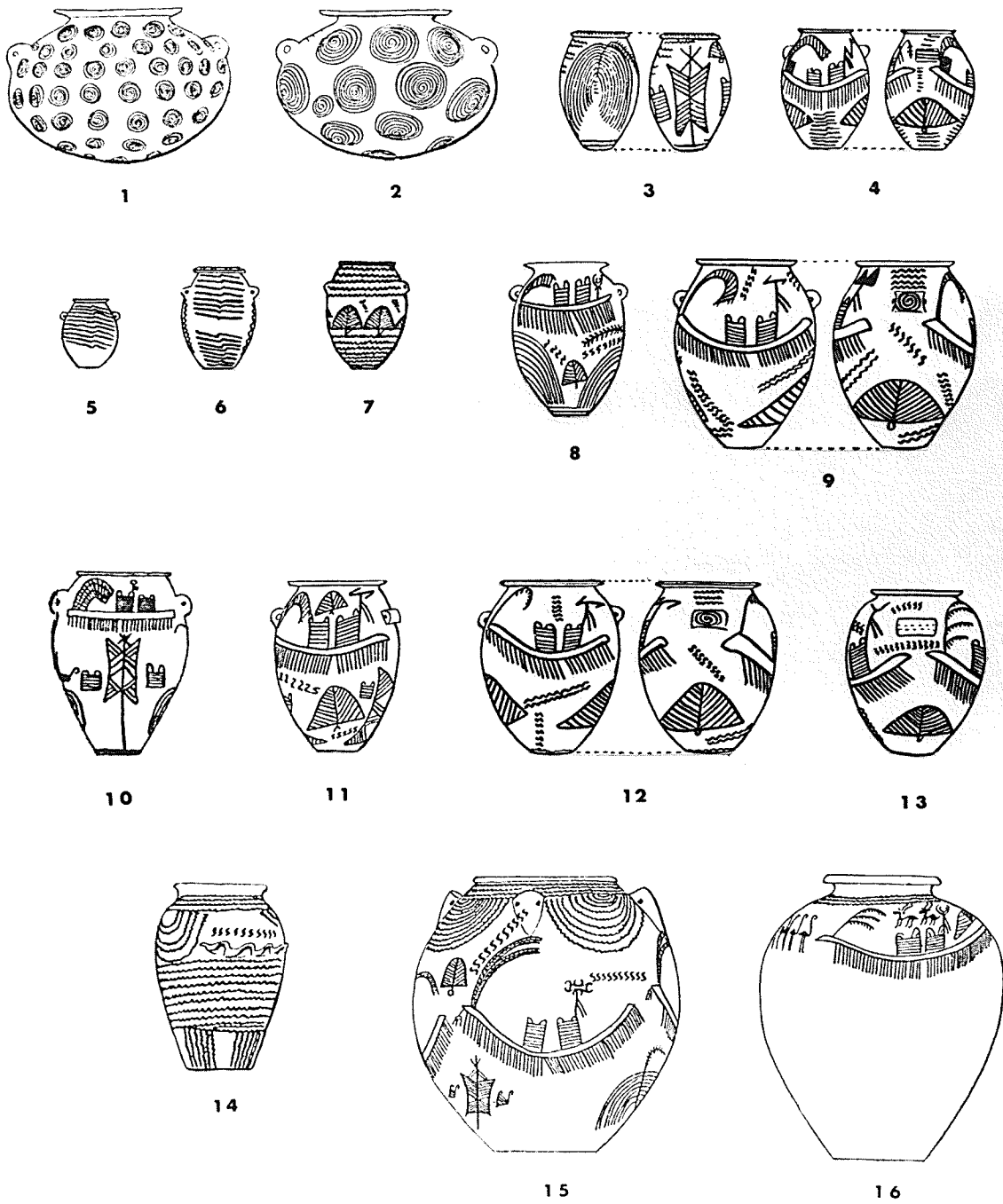


Fig. 3.4 Red on Buff Pottery Forms

17. Bad. P1. XL, 59d
18. Naqada P1. XXXIV, 55
19. Naqada P1. XXXIV, 59d
20. Bad. P1. XXXIX, 36L
21. Naqada P1. XXXIV, 59b
22. Bad. P1. XL, 59q
23. Bad. P1. XL, 54b
24. Bad. P1. XXXIX, 12h2
25. Naqada P1. XXXIV, 53b
26. Naqada P1. XXXIII, 4b
27. Amrah P1. XIV, D51b
28. Amrah P1. XIV, D46
29. Bad. P1. XL, 47d
30. Naqada P1. XXXIII, 4a
31. Naqada P1. XXXIV, 60
32. Amrah P1. XIV, D50b
33. Naqada P1. XXXIV, 50
34. Naqada P1. XXXIV, 51

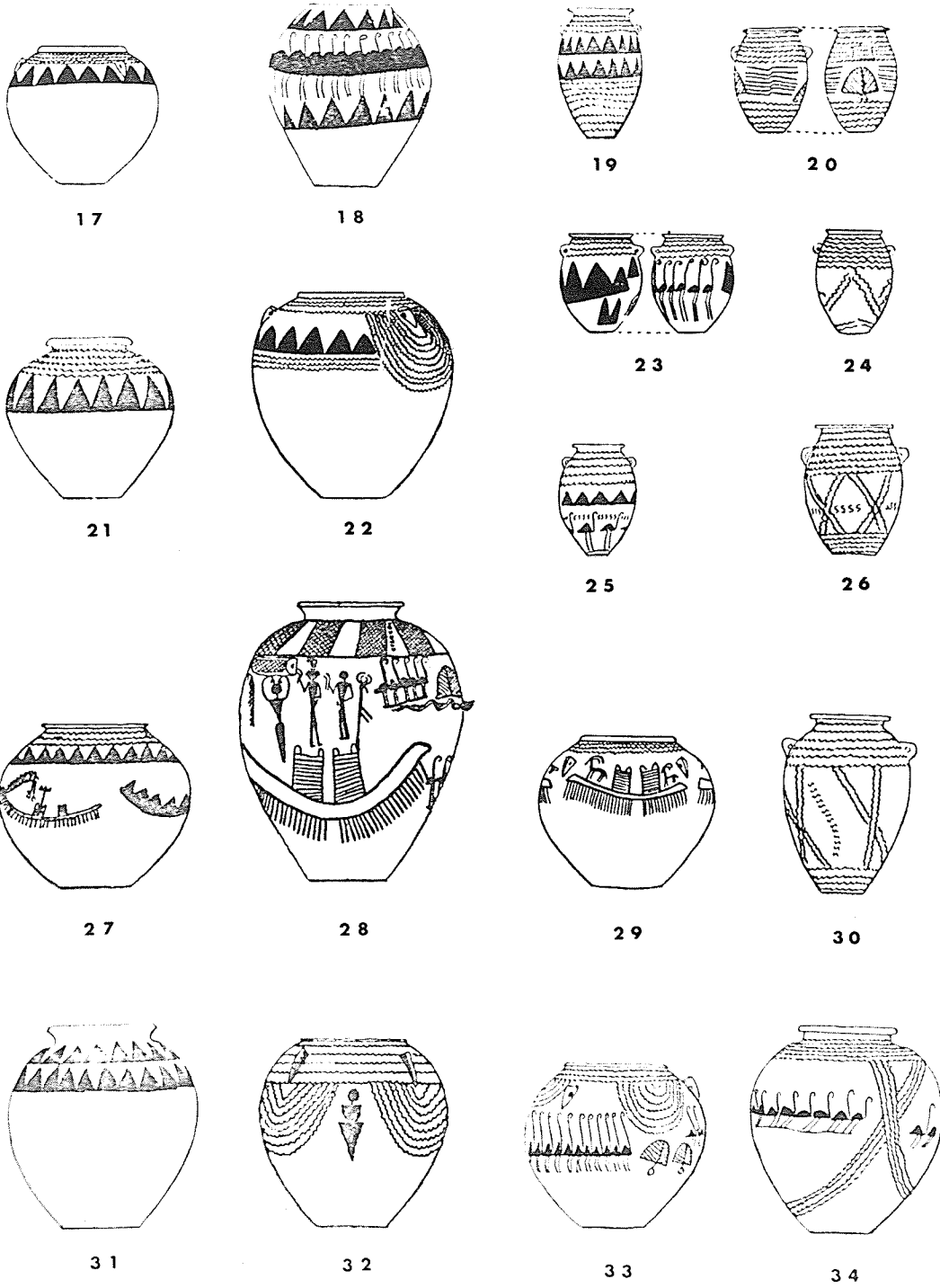


Fig. 3.4

1. Naqada Pl. XXI, 1
2. Bad. Pl. XXXIX, 1e
3. Amrah Pl. XIV, WB
4. Naqada Pl. XXXI, 3
5. Naqada Pl. XXXI, 4
6. Bad. Pl. XXXIX, 21h
7. Naqada Pl. XXXI, 6
8. Naqada Pl. XXXI, 19
9. Amrah Pl. XIV, D3c
10. Naqada Pl. XXXII, 45
11. Naqada Pl. XXXII, 55
12. Naqada Pl. XXXII, 61
13. Bad. Pl. XXXIX, 62m
14. Bad. Pl. XXXIX, 64m
15. Naqada Pl. XXXII, 80

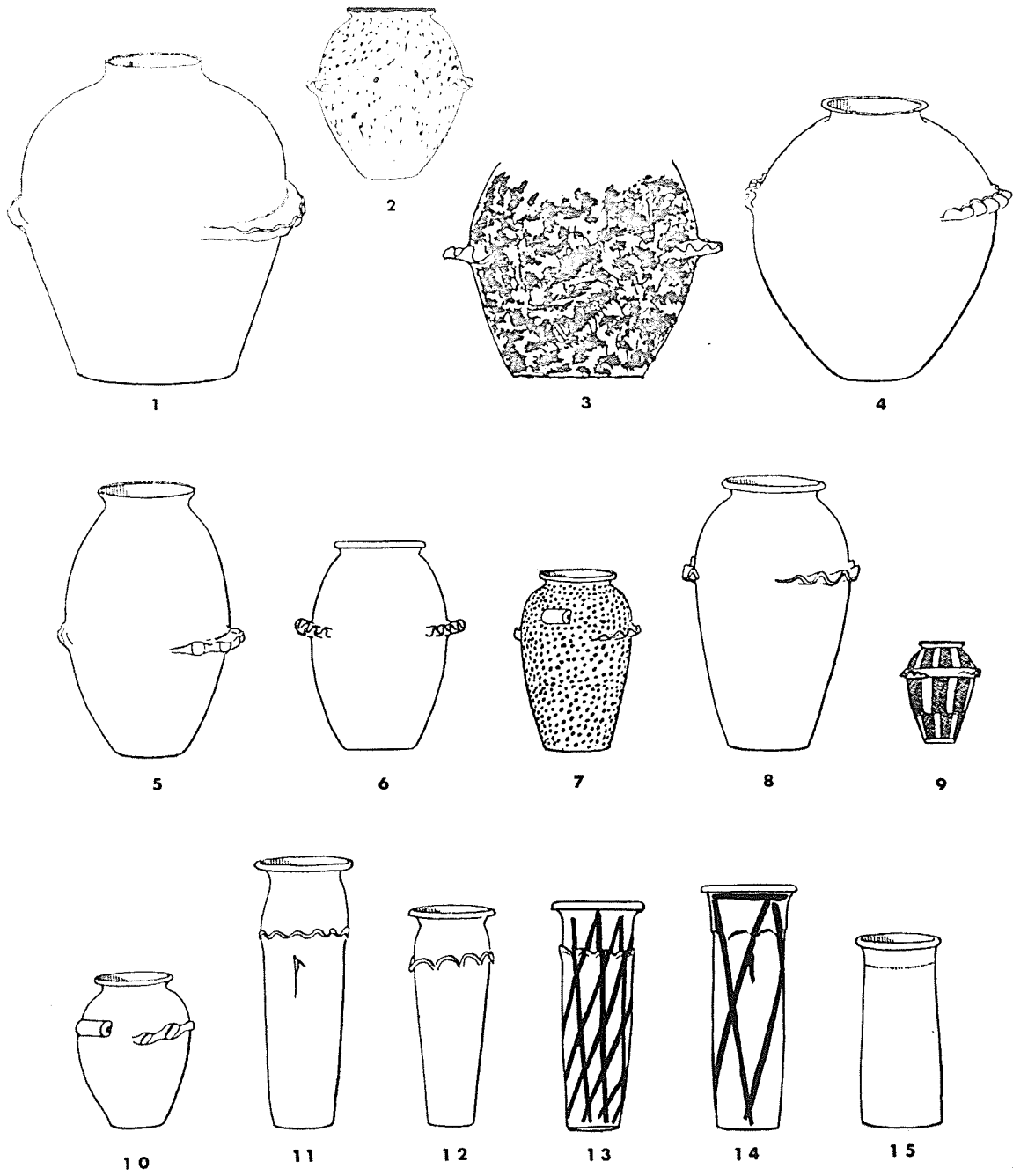
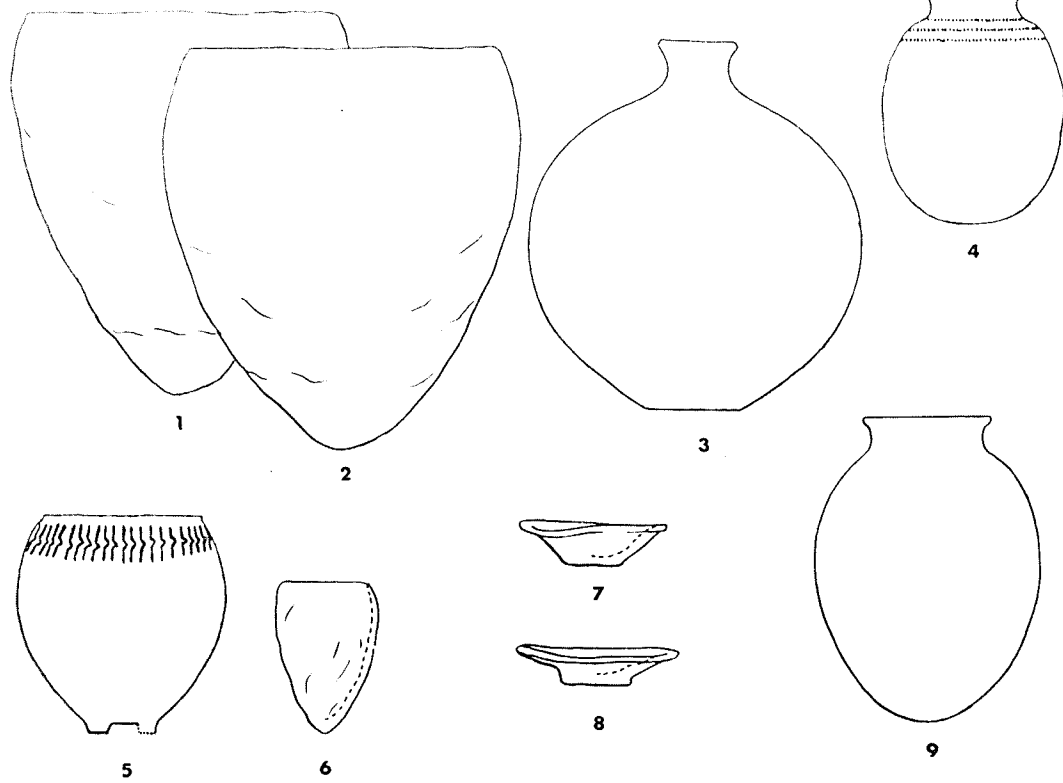


Fig. 3.5 Wavy-Handled Jar Forms.

1. Bad. Pl. XLII, 83t2
2. Bad. Pl. XLII, 83t3
3. Bad. Pl. XLIII, 97
4. Amrah Pl. XIII, R50
5. Amrah Pl. XIII, R41b
6. Bad. Pl. XLI, 17f2
7. Bad. Pl. XLI, 26f2
8. Bad. Pl. XLI, 26g
9. Bad. Pl. XLI, 50
10. Amrah Pl. XIII, L36d
11. Amrah Pl. XIII, L33f
12. Amrah Pl. XIII, L33g
13. Bad. Pl. XLIV, 30d
14. Bad. Pl. XLIV, 36u
15. Bad. Pl. XLIV, 33d

ROUGH



LATE

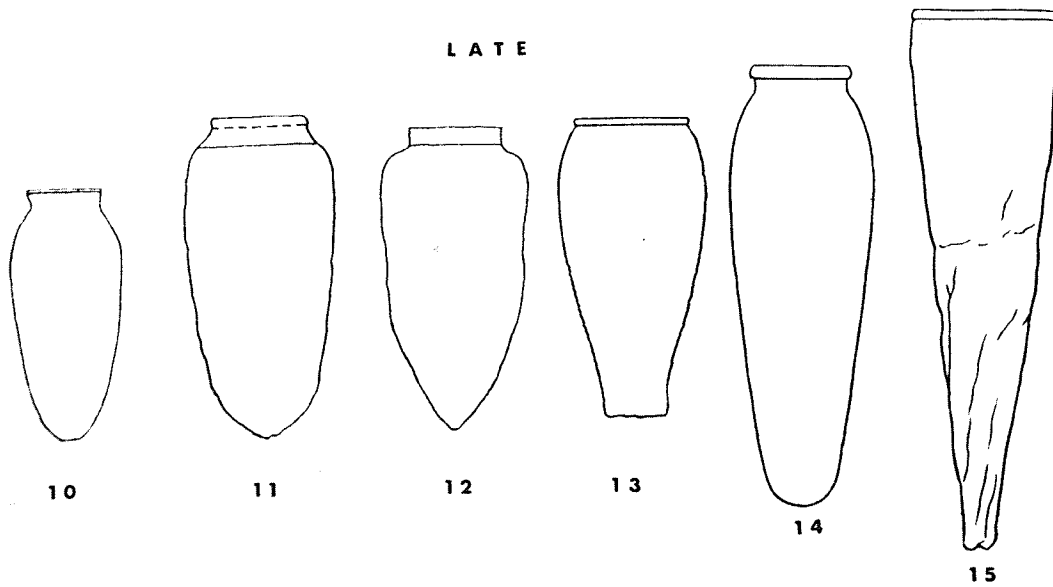


Fig. 3.6 Rough & Late Pottery Forms.

1. Bad. Pl. LI, 5
2. Petrie 1920, Pl. XXXVII, 3
3. Petrie 1920, Pl. XXXVII, 6
4. Bad. Pl. LI, 14
5. Bad. Pl. LI, 12
6. Petrie 1920, Pl. XXXVIII, 30
7. Petrie 1920, Pl. XXXVIII, 36
8. Petrie 1920, Pl. XXXVIII, 51
9. Petrie 1920, Pl. XXXVIII, 61
10. Bad. Pl. LI, 18
11. Bad. Pl. LI, 22
12. Petrie 1920, Pl. XXXIX, 70
13. Bad. Pl. LI, 23
14. Petrie 1920, Pl. XXXIX, 76
15. Petrie 1920, Pl. XXXIX, 83
16. Petrie 1920, Pl. XXXIX, 91

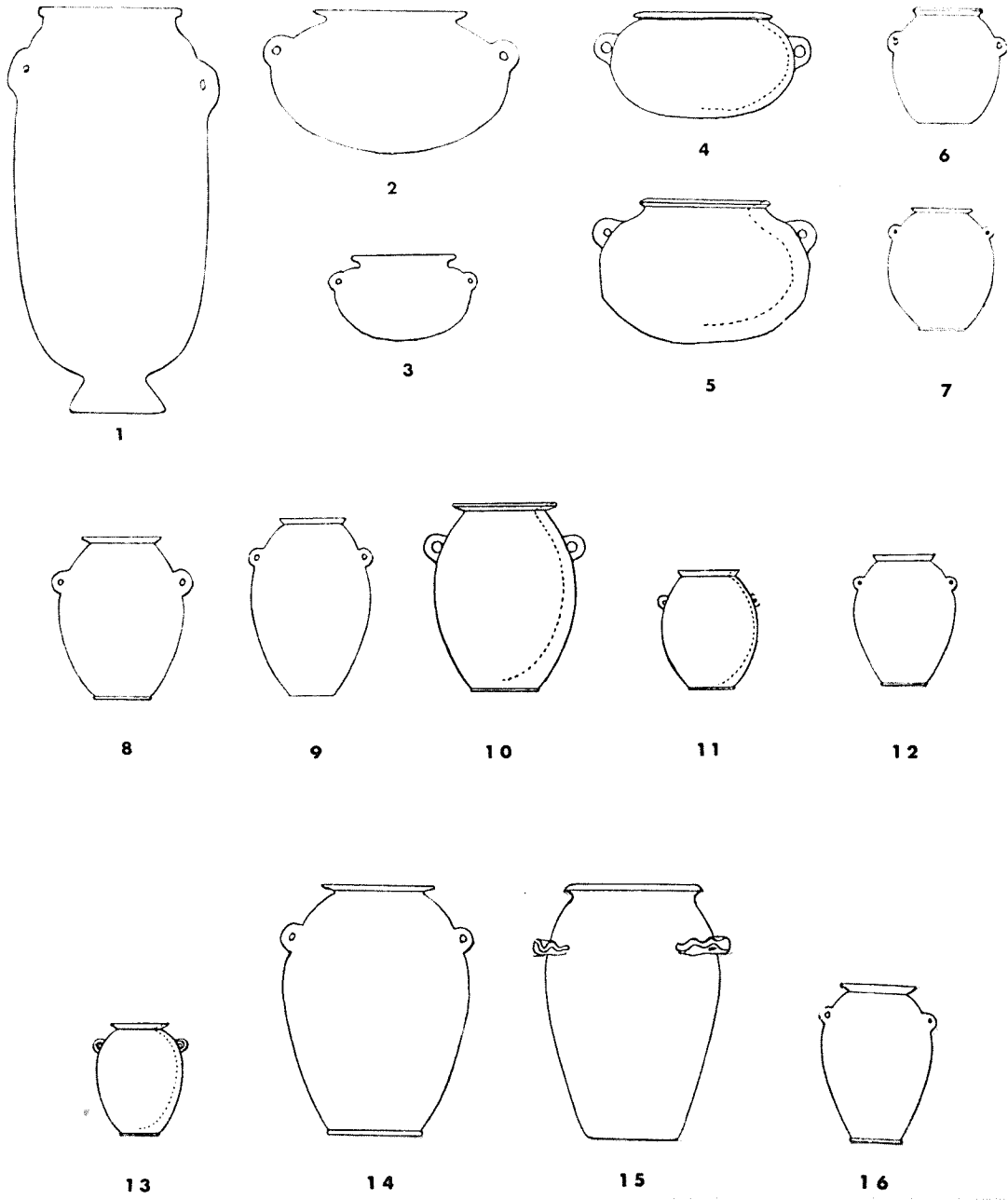
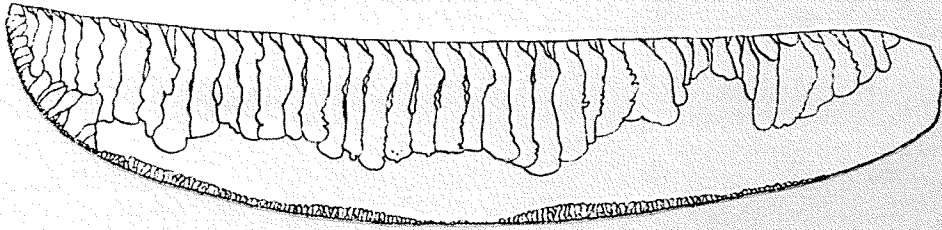
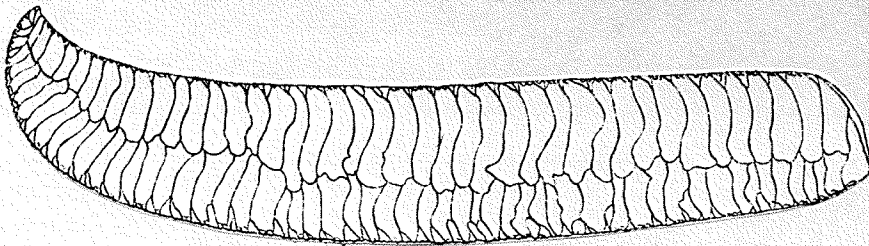


Fig. 3.7 Stone Vases.

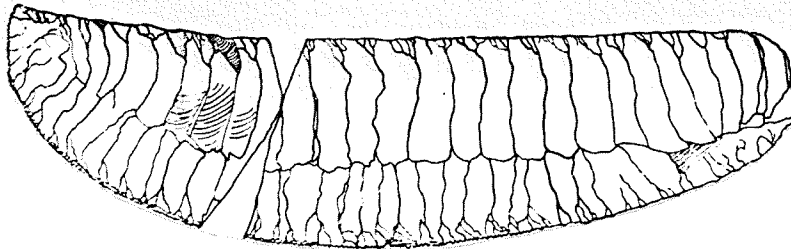
1. Naqada Pl. LXXIV, 81
2. Naqada Pl. LXXIV, 82
3. Armant Mond & Myers 1937-8, Pl. XX, 1573
4. Armant Mond & Myers 1937-8, Pl. XX, 1523



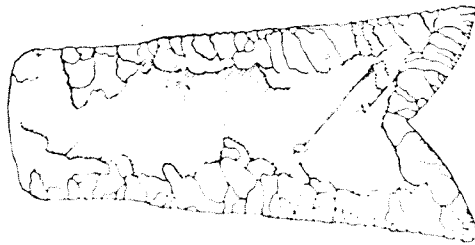
1



2



3



4

Fig. 39 Flint.

not seem likely from finds that these objects were mounted on the end of a long shaft. Instead they seem to have been intended for grasping in the hand.

A particularly interesting specimen of the Fig. 3.9, 4 variety is reported by O. H. Myers (1933: 55). The lance-head is called a pesh-kef instrument. Here the forked end is wrapped in a grass sheath which extends for half the length of the artifact. This sheath completely hides the fine denticulated edge and we can only presume that the sheath is intended to protect that edge. Since the artifact tapers outward, the only way to remove the sheath would be to destroy it. Thus, a new sheath would be required each time the instrument was used. The conclusion follows that the artifact was used infrequently and that it most likely served some ritual purpose. My suggestion is that they may have been associated with the ritual of circumcision.

Circumcision was practiced by the people of Upper Egypt in the Old Kingdom as texts and relief carvings show. The observance could easily go back to the predynastic period (see Yoyotte, 1959, photograph P. 46).

Grinding and flaking are found only on the forked 'lance-heads' and on the large knife blades. Baumgartel has shown that the latter were valued possessions even in their own time (1965: 31). The ripple-flaked knives were mounted in handles of gold or in handles of elaborately carved ivory (Benedite, 1916; 1918). Although the forked instruments were not as important aesthetically, they were probably of great importance ritually.

GROUND STONE

The technique of grinding is first encountered in Upper Egypt in the Badarian assemblages where a single category of ground artifacts is found: slate palettes. As an artifact type, palettes continue throughout Naqada I and II where they take on the characteristic rhombic and zoomorphic forms of the respective periods. It has been shown already that Naqada I craftsmen were more sophisticated in their techniques for working stone than the Badarians. Therefore, did the Badarians originate grinding? In the Naqada I assemblages, only palettes and prepared blades (daggers and 'lance heads') were ground. In Naqada II only these same artifacts exhibit grinding.

The most frequent form in which Naqada II palettes appear is that of the Oxyrhyncus fish (Fig. 3.10, 1). Rectangular palettes (Fig. 3.10, 7, 8) begin about S.D. 40 and continue intermittently to about 79 when palettes cease to be found. Along with the major pottery types described above, slate palettes have an uninterrupted distribution throughout Naqada I and II burials. Their great importance is not that we are able to learn that the predynastic people of Upper Egypt wore green malachite makeup, but rather as a type they illustrate the evolutionary processes and the basic cultural homogeneity of the region across the predynastic period which archaeologists have arbitrarily divided into the Naqada I and II culture periods. Pisciform slate palettes and changing pottery types are found in the oval shaped unroofed/roofed graves that span all of Naqada II. Slates are found in the wood-lined graves and in the elaborate brick-lined tombs. Fish-shaped slates occurring in graves of

1. Naqada Pl. XLVIII, 34
2. Naqada Pl. XLVIII, 41
3. Naqada Pl. XLVIII, 53
4. Petrie 1920, Pl. XLIV, 75c
5. Naqada Pl. XLIX, 65
6. Naqada Pl. XLIX, 79
7. Naqada Pl. L, 107
8. Naqada Pl. L, 101
9. Bad. Pl. LII, 25

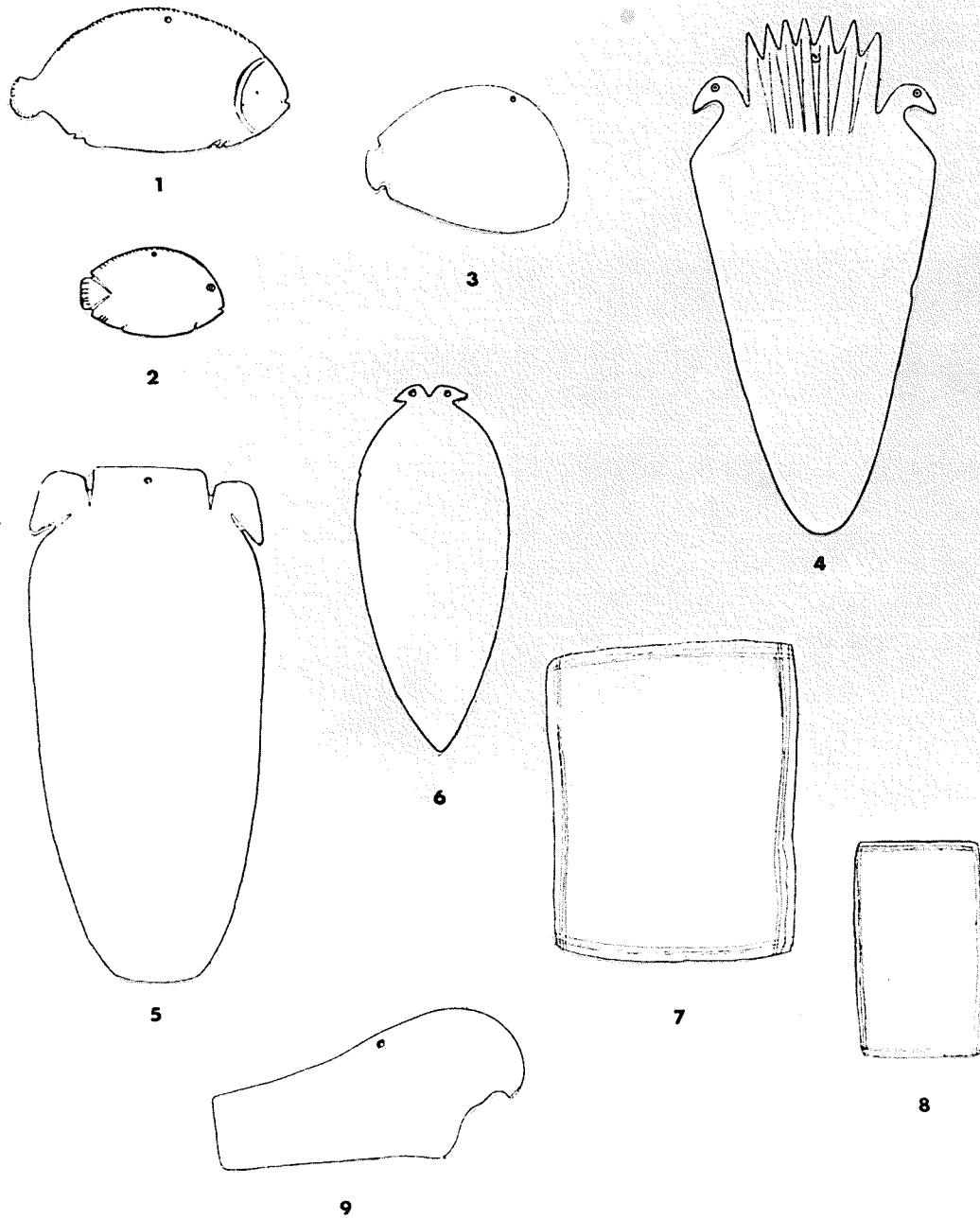


Fig. 3.10 Slate Palettes.

varying richness show that the people who are buried in the predynastic cemeteries were of one culture within a possibly stratified society. As a cultural "variable", Naqada II pisciform slates remain fairly constant while the burial types differentiate from the simple oval pit to more elaborate burial styles. On the whole, there is no evidence from the burial types and the carved slates that there was anything but a continuous period of development from the beginning of Naqada I to the Unification.

CARVED IVORY

Ivory combs and spoon handles adorned with processions of animals are found toward the end of Naqada II (Petrie and Quibell, 1896, Pl. LXI). Elaborate ornamental relief carving appears at the time of the ripple-flaked knife blades. The Gelel el Arak knife handle not only shows the state of the art form, strong Mesopotamian influences are present as well (analysis: Benedite, 1916; illustrations: Westendorf, 1968: 20-21). Some of the obvious eastern trait-motifs are: the "master of animals", a man subduing two beasts usually lions (Arak knife handle); mythical long-necked felids (Oxford Palette, Narmer Palette); figures wearing long tunics with fringed borders (Two Gazelles Palette); and winged griffons (British Museum ivories).

From the time of the Gebel el Arak knife handle onwards, carved motifs in wood, stone and ivory take on more and more importance as records of historical events. The knife handle and the Battlefield Palette show groups of men fighting. The Narmer Palette shows the victors' camp

when hostilities appear to be over. Narmer wears the White Crown of the South and the Red Crown of the North. This has been taken to represent the unification of Upper and Lower Egypt, and by association, some writers have identified Narmer with Menes. The identity of the first ruler of the Two Lands remains obscure due to the paucity of data there is available. A recent article has argued (unconvincingly) that Scorpion was Menes (Arkell, 1963).

Several carved tablets of wood and ivory have been found whose sole purpose appears to have been to commemorate certain historic occasions. One of the most important of these, the Zet tablet from Abydos (Michalowski, 1969, Pl. 21 facing p. 64; Emery, 1961: 59, Fig. 21), shows the Nar fish being carried in a procession before the Horus-name of Zet. Also in the procession are nome-standards and the symbols of various deities. The interpretation of some of these less well-known specimens could bear relevantly upon the as yet unsubstantiated order of such figures as Narmer and Scorpion. The value of these tablets for archaeology is at once artistic, documentary and linguistic.

TOOLS

Tools from Naqada II are not abundant and of those that have been reported, many are without records of provenance. Copper is rare in the predynastic period, but towards the end of the period its frequency increases. Copper as well as stone was used for making the heads of chopping tools. Chisels, pins and a variety of pointed implements occur only sporadically throughout the thousands of graves for this period. Elaborate sets

of copper tools have not been found before the First Dynasty (Emery, 1961, Pls. 42a, 44, 45a; Petrie in Man, 1901: 147-148). An expanded trade network in the Archaic period provided the copper which was cold hammered to form bladed tools. Triangular daggers with a copper blade appeared between S.D. 48-54, and at S.D. 63 a new type appeared. This new dagger form had a long narrow blade with a central mid-rib to keep the blade from bending. Daggers are rare in Upper Egypt and some have been traced to the flint prototypes of late Naqada I. It is not impossible that they could also have been trade items.

WEAPONS

The inventory of Naqada II weaponry shows that hand-to-hand combat was the chief method of fighting. The predominant weapon-types are daggers and maces. In the Nile Valley the bow had been known from Faiyum Neolithic times. Concave-base points were found in sites situated in the Faiyum and in the Badarian cemetery. If the Palette of the Hunters gives a representative sample of late predynastic weapons, then these include the bow, a mace with a pear-shaped head, spears, a curved club (throwing stick?), and a type of tomahawk with a stone head hafted at right angles across the end of the shaft. Daggers are now shown on the palette and may not have been a common weapon.

The principal innovation in weaponry in the Naqada II period is the appearance of the pear-shaped mace-head. As a weapon, this is a more durable striking instrument than the disc-shaped maces of Naqada I which were mounted on extremely thin shafts. If Naqada II did supplant Naqada I

by force of arms, maces with a pear-shaped head do provide an efficient means of bringing this about.

Petrie reports the earliest specimen of a pear-shaped mace that can be dated reliably occurs as S.D. 42 (1920: 22). Typologically it is very unlikely that this form evolved from the disc-maces of Naqada I. Can a foreign origin be found, therefore? Sir Leonard Woolley states quite unequivocally that the pear-shaped stone mace-head is a typically Sumerian weapon which continued to be employed as a symbol of authority in Sumer long after it had fallen out of practical use (1928: 54). The same may be said for Egypt. The pear mace was used at first as a common weapon; later it became a ceremonial object. Pear maces culminate in Upper Egypt in the mace-head steles of Narmer and Scorpion¹⁴. In later scenes where the pharaoh is depicted smiting his defeated enemy after a battle, the pear mace appears invariably in his uplifted grasp. The absence of any indications in the artifact seriation which point to a Sumerian invasion brings us to the conclusion that the pear mace entered Upper Egypt in a peaceful fashion. This point will be discussed further below.

HUMAN FIGURINES

The carved human figurines recovered from Naqada II graves represent a highly enigmatic group whose cultural significance may never be known. They are of little value for seriation because differences of material, style of execution, pose, size, etc. seem to occur at random. There was no one "sacred" material that they had to be modelled in, and

across the period no evolutionary trends are noticeable. Opinions have been expressed that these figurines were children's playthings, or that they were vehicles of sympathetic magic intended to make a woman conceive and bear a child. The latter seems plausible and can be supported by ethnographic material. Unfortunately the problem cannot be solved definitively because there is no way of imposing checks on the hypotheses. Further, many figurines are without adequate records of provenance. Since the figurines themselves form a closed body of data, hypotheses can only be speculative. Petrie's arguments about the presence of a steatopygous people's being driven southward by a race with a leaner phenotype has never been proven or disproven. Modern physical anthropologists tend to be sceptical of this formulation. The recent studies of anthropomorphic figurines carried out by Ucko (1962; 1963; 1965a; 1965b) are inconclusive or the data is at least susceptible to other interpretations (Baumgartel, 1970).

SUMMARY

In this chapter the typological data and the significance for archaeology of the major known Naqada II artifact categories have been presented and discussed. Unfortunately the artifacts tell us less than we might expect about the daily life and about the social organization of Naqada II society. The greater part of time and effort must be expended merely identifying the various cultural horizons from which the artifacts come. The issue even there is by no means settled, as Kaiser's studies show. It has been held throughout the discussion that no Dynastic Race

invasion is evidenced from the artifacts, and that anomalous foreign traits can be explained adequately by the hypothesis that they reached Upper Egypt by peaceful means. It was admitted that the artifact evidence cannot explain the presence of a significant Semitic element in the earliest written forms of the Egyptian language. However, this is not the place for an evaluation of the linguistic arguments. Throughout the present study only archaeological evidence has been sought in the form of artifacts, *i.e.*, objects fashioned by human social action. The next chapter deals with another sort of artifact whose contribution has not been assessed up to this time.

Figure 3.11 recapitulates the artifact evidence from this and the preceding chapters. To divide the seriation into meaningful cultural periods, clusters of types and discontinuities between these clusters should be sought. Short runs of distinctive artifact types appearing within the span of more permanent types such as burial types may indicate periods of heightened artistic output, the synthesis of new types from existing ones (WonR pottery, ripple-flaked knife blades), or the assimilation of foreign traits acquired through commercial contacts. It should not be thought that the present investigation attempts to be anti-invasion hypothesis oriented and that data are being manipulated to conform with this point of view. The conclusions expressed here follow naturally from the artifacts without forcing.

Thus, around S.D. 40, foreign traits, not necessarily foreign invaders, first begin to appear in Upper Egypt. This date corresponds to the later stages of Naqada I, a period when stoneworking and farming were

S. D.

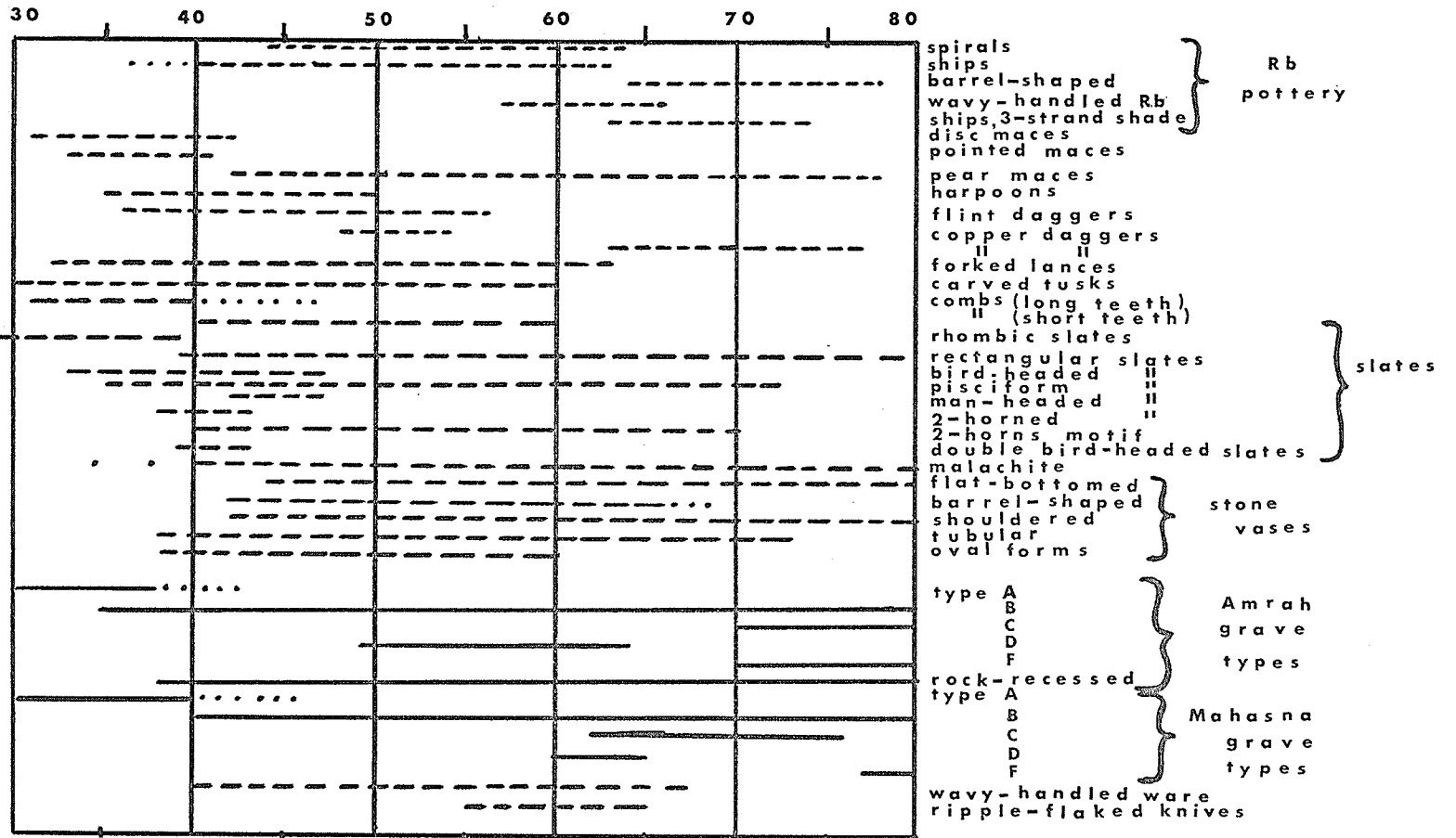


Fig. 3.11 - Sequence Date seriation of predynastic artifact types.

becoming sophisticated industries. Baumgartel has supplied the essential clue that it was gold that attracted foreign traders to Upper Egypt (1965: 20). The site of the town of Nubt which is located between Naqada and Ballas in the Thebaid may have been a centre at which gold was refined. The name of the town itself, Nubt ('t' is the feminine ending because towns were feminine), means "gold". This would explain how the people of Upper Egypt paid for the costly imports found in some graves: turquoise, glazed beads and lapis lazuli. It acts also as negative evidence to explain why the predynastic cemeteries were so thoroughly plundered in antiquity. If it was known that gold was abundant in Naqada II times and that people were being buried with gold accessories, tomb-robbers would have been highly motivated to do a thorough job of plundering. Of the thousands of burials at Naqada, only a few were intact. In the New Kingdom, foreign princes were accustomed to looking upon Egypt as a land in which 'gold is as dust'.

Nubt is opposite the principal shrine of Set, while the centre of the followers of Horus was located far to the south at Hierakonpolis. If it were true that the Set-worshippers of the upper Thebaid were at the hub of the gold trade, the conflicts between the Set-worshippers and the followers of Horus appear in a new light as a competition for this valuable resource. There is no evidence, linguistic or otherwise, that predynastic Upper Egypt was exporting wheat. In Roman times, Egypt was known as the bread basket of the Empire.

The pear-shaped mace comes in at S.D. 42. Upper Egyptian technology was becoming more sophisticated at a time when contacts were being

made with culture centres outside Egypt. The pear mace need not have arrived in Upper Egypt in the hands of conquerers, although once arrived it may have conferred enough of an advantage on its recipients to enable them to become conquerers themselves up and down the river. This is consistent with the views expressed above where it was suggested that Naqada II radiated outward from a point around, say, Naqada or thereabouts, overlaid the distribution of Naqada I and extended its boundaries to the north and south. The absence of large predynastic cemeteries south of Armant suggests that there was either nothing of economic value to the south at this time or that the Horus followers were already entrenched there and owing to friction between the Thebaid/Hierakonpolis culture centres, a great deal of intermingling did not take place. Instead, the attention of Naqada II traders was attracted along the path of least resistance which led towards the North where contacts were established with the civilization of Lower Egypt. When the Horus faction (confederation) finally overcame the centre of Naqada II resistance, it may be that the victors looked upon the state of Lower Egypt as a client-principality of the people they had just beaten and consequently it was thought that Lower Egypt should be brought under the dominance of Horus as well.

This is speculation directed towards the questions of what motivated Upper Egypt to effect the conquest of the north and why was the administrative capital moved north from This to Memphis (see Map 7, Chapter V).

This hypothesis explains the abrupt cessation of Mesopotamian influences about the time of the Unification. If it was the Naqada II culture that was carrying on this foreign trade; then the conquest of the Thebaid by the confederation of nomes under the leadership of the falcon clan could have brought this trade to an abrupt halt. Not until the early dynasties could the trade relationships be restored by the new masters. Such a stoppage of eastern traits is inconsistent with any hypothesis suggesting that a Dynastic Race from Mesopotamia invaded Upper Egypt. Instead, what likely took place was a series of factional wars between the indigenous populations of Upper Egypt. In an attempt to reconcile this with the linguistic caveat it would have to be said that perhaps there was a sizeable population of Semitic traders in Upper Egypt whose presence has not been attested to by archaeological discoveries. The other alternative would be to suppose that the civilization of Lower Egypt was more permeated with the influences of Semitic-speaking peoples and that the Semitic element did not enter the language of Upper Egypt until after the Unification. If it could be demonstrated that the written form of the language (e.g., hieroglyphics) was a northern invention, then importing the written form of the language into Upper Egypt would drag along with it the Semitic element. The anomaly would have existed for a while in Upper Egypt that the spoken form would have been without any Semitic content, while the writing practices learned from Lower Egypt would incorporate these Semitic elements. Gradually, through loan-words and other processes of linguistic assimilation, the Semitic element would have entered the oral form of the language of Upper Egypt.

This second hypothesis must assume that the language of Upper Egypt was either in such an unconsolidated state as to make it readily susceptible to foreign linguistic influences, or that if it was in a consolidated form already how could the Semitic influence come to be so pervasive by the earliest written forms. It has been suggested that one way might have been if there was no written form of the language of Upper Egypt at the time of the Unification and that Upper Egypt learned its written form from Lower Egypt where a Semitic element was already present.

I do not propose to defend either of these linguistic hypotheses at this time. They are suggested merely to offer some argument in that direction in the face of a body of non-archaeological data that calls for a Dynastic Race invasion of Upper Egypt on linguistic grounds. The position that I do wish to defend is the one outlined above relating to the origins and propagation of the predynastic cultures of Upper Egypt and the Unification.

To return briefly to the topic of the pear mace-head, it may be asked who its users were. Assuming the correctness of Woolley's statement that the pear mace was a Sumerian weapon, does this mean that Egypt was invaded by Sumerians? No. The societies of lower Mesopotamia consisted of small city-states who were constantly engaged in warfare with one another. The scope of Sumerian warfare was oriented to the dimension of the city-state. The failure of the city-states to unite against a common enemy gave rise to the Sargonid empire of Akkad. Military activities in Mesopotamia before the dynasty of Akkad sought limited

objectives: annexation of the neighbouring city-state, settlement of boundary disputes, etc. There is no evidence from the inscriptions that any protracted campaigns for the purpose of conquest were ever carried on outside Mesopotamia.

There are extensive records of trading expeditions, however. What is more likely is that the pear mace reached Upper Egypt as a result of commercial intercourse probably along the Wadi Hammamat-Kosseir-Red Sea route (Map 4, Chapter V). The times were ripe in Upper Egypt by late Naqada I: stone was being worked and stone forms could be reproduced once a template was provided. Pear maces are small, easily made and transported and they do not require a reorganization of the structures of the society for their adoption as was the case with the Greek hoplites.

The warriors of the Thebaid nomes would have had access to the new weapon before anyone else. With it they extended their dominion outward. This active phase of Naqada I culture accompanied by other foreign traits which were being imported and imitated at the same time could have been interpreted as a foreign invasion and formed the basis for a separate culture sequence which has been named Naqada II. At a somewhat later time the Horus confederation succeeded in overthrowing the Naqada II.

It should be asked, if Rb pottery is a) imported or b) if it developed in situ, why did it not continue into the early dynastic period. The factional struggle between the Set worshippers (Naqada II folk) and the followers of Horus, ending in the victory of the latter would solve the question. This is not a new version of a Dynastic Race hypothesis, but rather one which advocates a continual development within the

civilization of Upper Egypt. The victory of the Horus faction is not a dynastic conquest in the sense of a foreign invasion, but a unification of culturally similar populations. The victors then worked through the institutions and preserved the artifact types of the Thebaid societies which may still have been superior to their own. Assimilation in government and religion is a hallmark of the Egyptian historic period (to the chagrin of the Memphite and Heliopolitan theologians). Thus, even with the victory of the Horus element over the Set element, the First Dynasty could still have been the product of a long process of cultural evolution in situ in Upper Egypt.

CHAPTER IV

THE PHYSICAL ANTHROPOLOGY OF UPPER EGYPT

The present chapter reviews the human skeletal materials from the predynastic sites. The sites are those given in the introductions to the three preceding chapters. Skeletal studies of Egyptian remains have had a long history which goes back to Morton (1844). These studies are limited almost exclusively to examinations of the cranial dimensions and to the comparison of index values (Biasutti 1905; Chantre 1899; Oetteking 1909; Munter 1924; Barnard 1934-5). An observation to be made at the outset is that there have been almost no studies made within the last twenty years. The discussion to follow is arranged by sites.

Badari

The first craniometric study of skeletal materials from Badari was carried out by Brenda Stoessiger on a series of 59 skulls (1927). She observed that the specimens were markedly dolichocephalic (long and narrow in form), fragile and "very feminine in type" (1927: 110). The Badari skulls were more prognathic than observed series from Naqada but this prognathism was said to fall within an acceptable range of variation for territorially adjacent populations. Recourse to negroid admixture was therefore not required to explain this trait¹.

Comparing the Badarian sample with other populations outside Egypt, Stoessiger found that it is not either the Negroid or the Mediterranean race which bears the strongest resemblances to the Badarians, but the

Dravidians and the Veddahs of ancient India (1927: 147). Stoessiger concludes that the Badarian skulls, though slightly more 'primitive' than other predynastic series, nevertheless are not significantly different from them.

In 1935, G. M. Morant restudied Stoessiger's findings. He investigated her original 59 skulls and added another 83 skulls from Badari and Mostagedda. Morant's conclusions supported the ones arrived at in the previous decade. He found that the skulls from the Badari cemeteries had calvaria and facial breadths which yielded significantly lower indices than the normal values for Negroid and Lower Egyptian phenotypes (1935: 306-7, 309). Morant also agreed that the similarities between Badarian and Dravidian cranial measurements were at their greatest and that the similarities decreased in later periods.

The most recent analysis of Badarian crania duplicates the preceding conclusions by non-metrical techniques (Berry, Berry and Ucko, 1967). In the latter article the authors make no mention of the connections with ancient India, however. Some authors have favored continuous development of the earliest populations in Upper Egypt from paleolithic times (Arkell and Ucko, 1965; see also Morant, 1925: 17).

Naqada

The predynastic population of Naqada also discloses a long, narrow-headed phenotype. Petrie attempted to derive the Naqada people from the neolithic Algerians of northwestern Africa (Petrie and Quiball, 1896: 53-4) because a type of White on Red pottery survives to the present day in the

remote mountainous regions of Algiers (Petrie, 1920: 14b). Petrie's hypothesis proposed that there was an original Libyan stock which divided in prehistoric times. One branch went into (Upper--C.V.) Egypt, while the other moved eastward into Syria where they became the ancestors of the Amorites (Petrie and Quibell, 1896: 64b-c).

Warren's study the following year (1897) was inconclusive. In 1900, Petrie was supported by David Randall-MacIver who concluded an article with the opinion that in prehistoric² times, Upper Egypt was occupied by broad-nosed, long-headed Libyans who were supplanted before the Fourth Dynasty by an invasion of narrow-nosed, broad-headed Puntites (1900: 101, 103).

If this were the case, then the achievements of the Old Kingdom would have been the direct result of the intervention of the people of Punt. Punt is believed to have been situated in the region of present-day Aden. The archaeology of Punt does not substantiate Randall-MacIver's claim. There is no evidence of the social organization, astronomical and architectural proficiency which loom so largely among the achievements of the Old Kingdom. Yet if the Puntites were responsible for importing a fully-blown high culture into Upper Egypt, there would be a history of the development of these traits in the archaeology of Punt and this is not the case.

Typologically and socially, the roots of the Old Kingdom are firmly grounded in the culture of the Archaic dynasties, e.g., in a period when foreign influences stop abruptly in Upper Egypt. The Archaic dynasties, in turn, are linked in a continuum with the predynastic culture sequences.

Therefore, an unbroken development may be traced from Naqada I to the Old Kingdom.

Randall-MacIver's hypothesis is not without instruction, however. It makes us realize that physical anthropological data alone is not sufficient. A fully-rounded history of the predynastic period must account for the different results achieved by linguistics, physical anthropology and trait seriation. Presumably there is only one correct answer, and the three sources of data should all be utilized together.

The major analysis of Naqada skulls was a comparative study carried out by Fawcett and co-workers on Randall-MacIver's 100 skulls from Abydos (Randall-MacIver, 1901) plus an additional 400 skulls from Naqada (Fawcett, 1902). For methodological and theoretical reasons, Fawcett's analysis has deservedly been the target for the criticisms of later writers (example: Morant, 1925: 19). The most thorough-going critique is the one delivered by C. S. Myers (1905).

Fawcett's procedure was to compare measurements of the predynastic skulls with a series from halfway through the historic period and with another series from present day Cairo. The trend across time, he concluded, was a decrease in the length of the skull with an increase in its breadth (i.e., brachycephalization) (1902: 432).

Myers criticized the method of comparing skulls from a small pre-historic town like Naqada with skulls from Cairo, a modern international city whose inhabitants are under far-reaching genetic influences. Myers also wished to compare the measurements of ancient and modern skulls, but the greater value attaching to his work derives from the steps he took to standardize his raw data.

Using recruits from the Egyptian army whose parents had lived in the Naqada district, Myers took measurements of living persons, and after subtracting for an assumed thickness of the scalp, he compared his figures with those for the predynastic Naqada crania. He concluded, contrary to Fawcett, that there is no support for the belief that the prehistoric and the modern Naqada populations differ to a statistically significant extent. Granted, the relative correlation of cranial measurements in each population show great irregularity inter se, but the homogeneity of the predynastic series, as determinable by standard deviation, is the same as that of the modern population (1905: 91). Similar conclusions which stress the homogeneity of the entire population of Egypt over several thousand years have been obtained from genetic studies (Matta, 1940: Berry, Berry and Ucko, 1967: 560, Table 3).

Abydos

The view which is the accepted one today (i.e., Batrawi, 1946) arose out of a study by G. M. Morant in 1925 in which he compared 50 skulls of both sexes from the Royal Tombs at Abydos with 900 male crania from Giza covering the period 26-30th dynasties. Morant concluded that there were two separate "races" in predynastic Egypt: a brachycephalic "race" which was centred in the Faiyum and a dolichocephalic "race" centred in the Thebaid (1925: 4). By "race" he means a significant clustering of index values.

The Lower Egyptian type appeared to have remained unchanged throughout the historic period while the population of Upper Egypt underwent a gradual process of brachycephalization. The transformation of the Upper

Egyptian phenotype from long, narrow-headed forms to shorter, broad-headed forms was not effected before the Roman period, and the process did not begin until the Dynastic Age. In the early dynasties the process was just beginning, and by the 15th dynasty the type of the Upper Egyptian skull was half way between the (dolicho.) type of later Upper Egypt and the indigenous (brachy.) type of Lower Egypt. Of major importance to us here is the observation that the predynastic skulls appear to show less variation than skulls from any other period in Egypt's history (Morant, 1925: 6-7, 20; Batrawi, 1945).

In all of Egypt there were only two "races". In Upper Egypt, two separate "populations" could be detected but the differences between these was only the amount of variation which might be expected in adjacent populations. Thus, they did not differ sufficiently to earn the title of separate races. The same may be said of the Naqada skulls (Morant, 1925: 19). Of the two "populations" of Upper Egypt, Morant writes:

"The first and more primitive was characterized by large calvaria and it was probably represented by a small and dwindling population. The second, which was carried down to historic times, was being transformed by some slow process of evolution or racial admixture. Both types had low cephalic indices which distinguish them from the type of [Upper Egypt]." (1925:22).

From what has been said in the section on the Badari-Mostagedda crania, these are the likely candidates for the former "and more primitive" of Morant's racial types. The latter type corresponds to the people of the Naqada culture. According to Jackson, the skulls from Naqada show more similarities among themselves in facial height, facial breadth and facial index than with the Badarian group (Jackson, 1938: 147). However,

Jackson's own data do not support this contention. In Jackson's data (shown in Table 2, *infra*), El Amrah is the location which differs most noticeably from the others. This would rather support the statements made in the course of the present investigation (Chapter II) to the effect that El Amrah was distinctive on archaeological grounds and may have been the centre of an advanced early stoneworking culture which was overrun by forces from the Thebaid.

TABLE 2

COMPARISON OF INDICES FOR UPPER EGYPTIAN SKULLS^a

Sites	Cephalic Index (B/L)	Breadth-Height (B/H)	Height-Length (H/L)
Badari ♂	71.8	98.3	73.1
" ♀	(73.8)	(101.0)	(73.1)
Abydos ♂	71.7	98.1	73.3
Amrah ♂	72.1	100.5	71.8
Naqada ♂	71.8	99.2	72.4
Armant ♂	71.7	99.7	72.2
" ♀	(72.5)	(100.6)	(72.1)

^aAll figures given are means.

Nubia (Early Studies)

In the report of the Egyptian government's Archaeological Survey of Nubia, G. Elliot Smith, who was in charge of the skeletal finds, stated that the predynastic people of Upper Egypt were intermixing to a large degree with Negroid elements from the Nubian frontier zone (1910; 1911).

If this were the case, what characteristics would he expect to find in skeletons displaying Negroid features? Hermann Junker lists the following Negroid traits:

"Let us begin with the characteristics of the Negro skull. It is long and narrow, and, seen from above, is elliptical; in general its height is greater than its breadth and it has a large facial base (Basialveolar length). The zygomatic arches are prominent (Phanerozygy) and project well forward in the face; the bony nasal aperture (appertura piriformis) is broad, about equal in height and width. Most typical is the so-called subnasal prognathism, the salience of the upper maxillary;....

Noteworthy in the skeleton is the extent of the flexion in the lumbar part of the vertebral column and the accompanying marked inclination of the pelvis, so that the buttocks and thighs appear to be pushed backwards. Equally striking is the dolichoknemy, i.e., the great length of the bones of the calf as compared with the thigh bones; the femoro-tibial index is 84 in the Sudanese Negroes, in Europeans about 80. This proportion is often emphasized in life by the length of the muscles and the shortness of the Achilles Tendo" (1921: 122)

Later studies have failed to lend support to Elliot Smith's allegations of Negroid admixture in the race of Upper Egypt. Randall-MacIver had shown ten years earlier on anatomical grounds that the people of Upper Egypt could not have originated in Negroid stock (1900: 99). As for intermingling between the two stocks at some subsequent date, Morant has been unable to find even a trace (1925: 8). Using art as well as skeletal materials, Junker believed that the first Negroes had not made their appearance in Nubia before 1500 B.C. (1921). While the latter is questionable, in the first of two articles on "The Racial History of Egypt and Nubia" based upon extensive craniological investigations, Batrawi is of the opinion that any similarities that exist between the Nubian Negroes and the predynastic race of Upper Egypt are only very distant and very

general similarities (1945: 94a). A recent study by J. M. Crichton (1966) of Egyptian and Negro crania by means of the multiple discriminant method adds nothing new to what has already been said.

SUMMARY

Early researchers sought the origins of the predynastic Egyptians in every corner of the globe except Egypt. It has even been held by one writer that the Red Indians visited Upper Egypt and made a contribution to the gene pool. Following Morant's investigations, it has come to be believed that there was an indigenous autochthonous population with long narrow heads and small features inhabiting Upper Egypt while a second, broad-headed people was established in the North. These populations respectively gave rise to the civilizations of Upper and Lower Egypt. As a process which seems to have taken the entire historic period to complete, the tendency was towards the gradual brachycephalization of the population of Upper Egypt.

In the predynastic period, however, the population of Upper Egypt was quite homogenous and distinct. It has been shown that the narrow-headed Upper Egyptians were not related to the Negroes to the south or to the northern broad-headed people. Petrie's original proposition that the Egyptians originated as a branch of the early Libyan stock from northwest Africa has been neither proven nor disproven. It would have to be demonstrated that the Libyan stock had more in common with the Upper Egyptians than White on Red pottery.

It might be suggested that the dolichocephalic Upper Egyptians were a survival in situ of the Acheulio-Levalloisian/epi-Levalloisian inhabitants of the Nile Valley. However, there is a gap in the data which would be required to substantiate this hypothesis. This is what I have called the neolithic gap. This phenomenon has been discussed in an earlier chapter. In addition, no finds of paleolithic skeletons have been made in Upper Egypt, so there is no way of effecting a comparison between the populations of the various periods. Modern writers are oriented towards a south and western provenance of the people of Naqada I (Arkell, passim).

There is a problem with the in situ argument, however. When the Badarians and the people of Naqada I appear in the archaeological record, they are accomplished neolithic farmers and potters and keepers of domesticated livestock, living in villages and weaving cloth. The absence of a pre-pottery horizon in Egypt plus the growing body of data suggesting the origins of many of these practices in the region of the Zagros foothills (Braidwood and Braidwood, 1950; Adams, 1962; et al), seems to require a trait-transfusion probably in the form of a movement of population from Mesopotamia at some early period. These views may have to be changed, however, when the results of Wendorf's work are published (see Wendorf, 1968, 1970).

CHAPTER V

NATURAL RESOURCES, TRADE, SETTLEMENT AND SHRINES

Introduction As stated in the introductory chapter, the general purpose of the present investigation as a whole is the archaeological review of the predynastic culture periods of Upper Egypt in the light of modern research. In keeping with the overall research design, it was planned to include a discussion which would treat, in two steps, examples of the directions taken by modern archaeological contributions to the study of trade and settlement patterns and to evaluate the success of their application in Upper Egypt. Earlier chapters have indicated that the present state of our knowledge makes it impossible to take the latter step as the results are not yet published. Consequently the discussion in this chapter will centre upon the first step.

Trade

Since trade was concluded to be a principal mechanism by which the presence of foreign artifacts in Naqada II assemblages was explained, discussion of the directions being taken by modern archaeological research on trade is necessary. Archaeologists are moving away from models of social change that invariably have attributed the appearance of new artifact types in a previously settled region to invasions or immigrations of new populations. Following from current trends in anthropological theory, societies are being thought of as structures of interrelated and interacting substructures, all of which are dynamic and which together produce

both adaptive and adjustive changes in the society as a whole (Nash, 1970: xix). This is the systems approach. Change can come from conditions internal and external to the social system.

For the archaeologist it means having a model of what a society is. This should be a dynamic model which keeps before its user the realization that unless certain universal structural requisite functions are performed, a society cannot persist. The structural requisite functions for the viability of any society are: role differentiation and socialization of new members, solidarity, economic allocation, political allocation and integration/expression (Levy, 1952). Trade consists of structured behavior patterns associated with the requisite of economic allocation which is the distribution of goods and services within the social system.

Because trade thus operates at many levels intra- and inter-systemically, it can be a causitive factor in effecting social change. It may also be an indicator of contacts with other societies and a motive for such contacts (Renfrew, 1969: 151). The present study has argued from the continuity of predynastic burials that an invasion or any other drastic alteration of the social organization of a society would be clearly reflected in the economic subsystems of that society. These changes would be widespread and clearly distinguishable in the material cultural assemblage from short-run adaptive and adjustive changes. Differences of artifact types in any assemblage can be analyzed by looking for artifacts (a) of local design and manufacture, (b) those made for foreign customers or locally under the direction of foreign masters, and

(c) those of foreign manufacture abroad (Higgins, 1968: 78).

In the earliest part of the predynastic period, the manufacture of artifacts was based upon the direct exploitation of natural resources by the artisans themselves to supply the needs within the society. As craft specialization developed, a true system of trade, in the sense of an exchange, emerged because there began to appear classes of artifacts which were sought after and which provided the motive for economic relationships between societies. At the same time there was a shift from traffic exclusively in finished products to traffic in raw materials which local craftsmen would work up into finished articles (example: semi-precious stones for beads). In the Naqada I horizon, the ability of certain villages to produce stone vases added this type to the flow of trade in Upper Egypt.

The apparent conclusion is that predynastic trade in the Nile Valley involved the exchange of luxury goods whose quality improved as the technology and wealth of communities increased. The appearance of copper implements and pieces of amazonite in Badarian sites is a case in point. The absence of by-products of the smelting process suggests that copper pins and other pieces of copper were traded in from the northeast. The chemical composition of the copper in question makes tracing its origin difficult. In the case of cold-hammered meteoric copper, this is impossible.

Amazonite is believed to have entered the Nile Valley via an overland route from Zumma in the Western Desert (Arkell and Ucko, 1965).

However, it is not yet known whether amazonite was an item of exchange per se or whether its function as an inexpensive substitute for lapis lazuli to ward off the evil eye provided sufficient motive for the inhabitants to exploit this resource directly or through the intermediary step of trading with people living to the West.

Amazonite thus may be an indicator of western contacts and its ritual function may have provided the motive for making such contacts. In the area of research techniques, an analogy exists between amazonite in this case and the work of Colin Renfrew with obsidian (Renfrew et al. 1965, 1966, 1968a, 1968b). Spectrographic analysis and quantitative archaeological calculations have shown that for obsidian, relationships exist between the weight of the material found in a site, the distance of the site from the source and the type of economic activity which resulted in the material's distribution. Renfrew's studies reveal that patterns vary with different materials and that a complete picture of a community's trading activities must be built up from a composite study of as many different materials as the practicability of analysis will allow.

Some correlations between settlement patterns and the distribution of natural resources are possible from the maps which are included at the end of this chapter. The major land and sea routes are also shown. The accessibility of the Thebaid communities specifically to gold affords one explanation of the development of the Naqada culture of Upper Egypt (Baumgartel, 1965: 20). Gold explains the motive of other societies for trading with Upper Egypt on one hand; it also explains how the people of

Naqada I and II were able to pay for their imported luxury goods of ceramic and metal. This has been dealt with in Chapter II. It follows that trade exports of gold and/or grain would leave no archaeological remains.

The issue of a sea route bringing trade goods to Kosseir through the Gulf of Aden and up the Red Sea is perfectly logical given the eastern trading civilizations of the time. Several scholars have argued for such a water route to Upper Egypt (Frankfort, 1951: 110-111; Kantor, 1952: 250).

The objection raised by Frankfort that no reciprocal evidence of Egyptian trade goods have been found in Mesopotamia (1951: 111) can be answered in several ways. First, Upper Egypt may have produced nothing of salable value on the international market. It has been shown above that stone vases were the highlight of Naqada I technology.

It is also possible that traders met at some intermediate point between Egypt and Mesopotamia. The coasts of the Hadhramaut, Muscat and Oman may contain sites analogous to the great trading cities of the Levant, though on a smaller scale. These "ports of trade" (Revere, 1957) would have had important consequences for domestic relations between Egypt and the East in the same fashion that the Hellespontine ports of trade acted as a buffer zone between Greece and the Persian empire. Actual trade may not have taken place at Kosseir, but at a point along the Hadhramaut.

The most vocal opponent of the sea route position has been W. Helck (1962) who maintains that all trade went overland along either the

Euphrates or along the Tigris caravan routes to the port cities of the Levant, and from thence to Egypt by sea, entering through the Delta. Helck's argument has recently been reviewed by Helene Kantor and refuted on a point-by-point basis (Kantor, 1965: 11 f.). One of Helck's arguments refers to the unfitness of Sumerian ships for long sea voyages. Kantor has shown the remarkable seaworthiness of Arab dhows and on the other hand, Thor Heyerdahl's crossing the Atlantic in an Egyptian papyrus boat has shown that these vessels would have been perfectly capable of navigating the Red Sea (Heyerdahl, 1971).

The debate between Kantor and Helck has centred upon Sumer as Egypt's trading partner. There are other possibilities too. The existence of a civilization on the island of Bahrain in the Persian Gulf (the Sumerian "Dilmun"?) has just been discovered by Danish archaeologists and has not yet been reported fully. (Bibby, 1969, see also Kramer, 1963, 1963-1967). The present study has suggested in earlier chapters that trade contacts between Egypt and the Harappan culture of the Indus Valley were feasible. Of the latter society Gordon Childe has written: "The area embraced by the Indus civilization in the Harappan period must have been twice that of Old Kingdom Egypt and probably four times that of Sumer and Akkad" (1957: 173). Old Kingdom Egypt and the Akkadian empire had vast networks of trade. It is equally possible that Harappan influences reached Upper Egypt in the predynastic period especially if there was the lure of gold. In addition, the Thailand cultures that have only just been reported show pottery not unlike the spiral Red on Buff ware of Naqada II and the Thai artifacts show large oared galleys like the ones found on Naqada II and Mesopotamian motifs (Solheim II, 1971).

Settlement

Among New World archaeologists, the study of site distribution and the computation of settlement patterns is a field of archaeology in which an increasing amount of work is being done (see Chang, 1968, for an excellent bibliography of work in ancient Egypt, see Trigger, 1965). Much of this literature has been studied in the preparation of the present section with a view towards acquiring analytical tools and skills that could be applied profitably in Upper Egypt. While some useful ideas have been learned, the exercise has not yielded the expected rewards. For example, inferences about the social structure and kinship systems of a prehistoric population requires extensive ethnographic data as a back-up device for checking the reliability of inferences. In the discussion of anthropomorphic figurines, it was said that such back-up sources are not available for predynastic Egypt and consequently the inferences are weakened since they are based upon the sole ground of the artifacts themselves. Conclusions of a cultural nature or pertaining to social organization make excessive demands upon the artifacts in the absence of documentary support of some kind. Where no such support exists, there is the unreliable and methodologically tenuous procedure of projecting relationships from the 'ethnographic present' back to the periods for which no records exist.

The most recent review of the attempts by Americanists to derive culturally significant conclusions about kinship and residence takes the position that the results of such analyses are illusory and misleading.

In the absence of extremely detailed historical data, the authors are of the opinion that the resulting reconstructions are so tenuous that the archaeologist would profit by concentrating his efforts elsewhere (Allen and Richardson, 1971: 41, 51).

The prehistoric shrines are given to indicate the locations of the major religious centres of Upper Egypt in predynastic and Early Dynastic times and to show how these sites and the early capitals mark the shifting centre of gravity (northward) in response to changing historical conditions. The different types of site reflect the complex conditions which make up the structural requisites of a viable social system outlined earlier in this chapter.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The general purpose of this study has been to review the Badarian, Naqada I and Naqada II horizons from the new perspectives of mid-twentieth century research. The present chapter reintegrates the conclusions arrived at in the previous chapters with the objectives of the study.

The Badarian Period

Were they a distinct cultural entity? The Badarian sites represent a cultural horizon on the basis of distinctive artifact types occurring within the artifact classes which were studied: burials, chipped stone, ground stone, ceramics, carved ivory and metal implements.

Badarian burials have been shown to possess traits of size, shape, contents, body posture and orientation which are also found in burials from later horizons. It may be said on typological grounds that the round shallow Badarian graves were near in time to and probably the predecessors of the Naqada I burials. It was not possible to investigate these trait similarities on a numerical basis owing to the uneven quality of the published data. It can be said, however, that the Badarians and the people of Naqada I shared enough traits to suggest a close cultural similarity.

Chronology

Only a single C-14 date exists for the Badarian period: 5110 ± 160 , corrected value: 3160 ± 160 , B.C. (Gro 223, De Vries and Barendsen, 1954: 1140a).

Single radiocarbon dates are never a reliable indicator, especially where the sample is suspected to be contaminated with modern carbon. It is interesting to note that the single date given here is not at variance with the conclusion arrived at earlier that the Badarian period could have been contemporary with Naqada I.

Relative to the other predynastic periods, the Badarian sequence is traditionally regarded to have preceded the Amratian (Naqada I). This is based on the single stratified site at Hemamieh. Recently the stratigraphy at Hemamieh has been criticized (Kaiser, 1956, 1957) but it has not been disproven. Statistical seriation of Black-topped Brown, Black-topped Red and Polished Red Pottery has placed the Badarian series before Naqada I.

It was not the purpose of the present study to explore the Paleolithic of Upper Egypt in detail except insofar as was necessary to comment whether or not there was continuity of regional traditions from Paleolithic to Chalcolithic times. A problem that arose in this connection is the so-called absence of a true Neolithic period for Upper Egypt (food-producing, polished and ground stone, ⁺ pottery: Pittioni 1962: 213; Childe, 1936, *op. cit.* Ch. 5; 1942, Ch. 3). This phenomenon, Baumgartel's "Neolithic gap" (1947), has been referred to here as a cultural discontinuity. It is an intriguing problem. Modern findings point to northeastern Iraq as the region in which agriculture and the keeping of domesticated livestock originated (Braidwood and Braidwood, 1950; Reed, 1959; Helbaek, 1959a, 1959b). No evidence has yet been found in Egypt to disprove the contention that these skills were brought in from Iraq.

Technology

Chalcolithic cultures are defined as horizons in which copper implements were in use along with stone tools. The assumption being made in the definition is that the people using the copper tools had made them themselves. In Upper Egypt there have been no finds of slag to indicate that copper was being smelted locally during the Badarian and Naqada I periods. To judge from the types of copper objects found in the predynastic sites -- pins, beads, one axe and some harpoon heads -- these specimens are luxury items and could quite possibly have been trade goods. If this was the case, then the mystery of the Neolithic gap might be solved by the suggestion that the earliest Chalcolithic horizons were in fact Neolithic horizons utilizing copper tools traded in from Sinai or elsewhere.

Similarities/Contrasts with other predynastic peoples of Upper Egypt.

From skeletal studies, the Badarians had a slighter build and a smaller bone structure than the other predynastic inhabitants of Upper Egypt. Some investigators have seen similarities between the Badarians and the Dravidians of ancient India (Chapter IV). The present study has found that there is no foundation in the artifact record for believing that the Badarians originated in India and it remains to be demonstrated that the Badarians and the Dravidians are both descended from a common stock. The weight of scholarly investigation in the past has been directed to the problem of Negroid origins and admixture. Today the accepted belief is that no such mixture took place, but we are left with the

question "How can racial (Negroid or any other) characteristics be inferred from skeletal remains?"

The Badarians are believed to form part of the "race" of Upper Egypt within acceptable limits of variation. More physical anthropological work is needed using the technique of multiple discriminant analysis.

Did the Badarians invade Upper Egypt?

So far, the Badarian is the oldest non-Paleolithic horizon to be discovered in Upper Egypt. Badarian artifact types seriate into artifact types from the subsequent Naqada I period, and there is evidence of typological and cultural continuity from Badarian to Naqada I. However, data concerning the origins of the Badarians is lacking. A. J. Arkell has argued that Badarian black-topped pottery may be derived from the black-topped pottery of the Khartoum Neolithic, and other scholars are also trying to trace Badarian origins to African sources.

Offsetting the matter of the African origins of the Badarians is the issue of the Iraqi origins of domesticated plants and animals. Were the Badarians the first to import these techniques into the Nile Valley? If the Badarians originated in situ in Upper Egypt, did farming and livestock breeding originate there too. These questions cannot be answered but they serve to indicate the directions which future research will be taking. The Neolithic of the Near East is still too imperfectly known for an effective synthesis to be made at this time. Thus the question of Badarian origins must still remain open. Future work will have as its task to investigate the possible connections between Upper Egypt and the

Fertile Crescent on the one hand and between Upper Egypt and continental Africa on the other.

The absence of weapons such as disc mace-heads in Badarian sites has created the image of the Badarians as peaceful agriculturalists and not as warlike invaders. Similarly, our knowledge of the Badarians rests heavily upon cemetery material which may not be representative. For instance, in later times it was the practice to mutilate hieroglyphs of dangerous animals, weapons and men so that they would not harm the deceased through magic. Perhaps weapons were not included for the same reason in Badarian times; or perhaps it was thought that the deceased, if armed, would be a threat to the living. In this respect, the ethnographic record is not very helpful.

The evidence of the class of ground stone artifacts suggests that the Badarians were living in Upper Egypt and that they acquired knowledge of grinding from centres to the south. The native Badarian stone artifact types are large scrapers flaked from nodular pieces of flint. In the Badarian horizon, ground stone artifacts make up only one type: slate palettes. In the Naqada I horizon the predominant form of ground stone artifacts are also slate palettes, although presumably grinding was also used for smoothing the surfaces of stone vases. In Naqada II, grinding is still limited to the manufacture of palettes, but now grinding is also used to produce knife-blades and pesh-kef instruments (forked lance-heads).

Because the Badarians possessed ground stone palettes despite their general lack of proficiency in working stone, the conclusion has been advanced in an earlier chapter that the idea of ground slate palettes

diffused downriver to the Badari district from sites in the Thebaid. For this to have been possible, the Badarian and Naqada I cultures would have to have been contemporary. In the same manner the absence of stone vases in Badarian assemblages can be explained. Palettes are readily portable and are a fairly inexpensive artifact type. Stone vases apparently were highly prized as the many attempts by Naqada II craftsmen to produce ceramic imitations of stone vases indicate. It may be, therefore, that expensive stone vases were not traded northward to the more "primitive" Badarians who lacked technological skills and natural resources to pay for luxury imports on a large scale. The dominant trade pattern appears to have been from El Amrah into the Thebaid and out through the Wadi Hammamat via Naqada, Nubt and Coptos.

Following the Badarian period, there is no major discontinuity in the artifact record although it is true that specific types do change (i.e., ceramics, for example). The principal Naqada I types and most notable White on Red pottery, can be explained as the synthesis of locally occurring traits. Stone vases, mace heads and palettes continue into Naqada II with only minor stylistic changes. Thus, from seriation, there is no discontinuity that can only be explained as a foreign invasion. In the present study the chosen artifact classes were compared and contrasted with each other for each of the predynastic periods. Future research must extend these comparisons outside the Nile Valley. Where no correspondences occur, then by the economy of hypotheses it can be said that the predynastic cultures of Upper Egypt developed in situ. From the existing evidence, such a development seems to be indicated at least from the Badarian horizon onward.

To this hypothesis there are two principal lines of objection. The first is the linguistic objection which demands an explanation of the Semitic element in the earliest written forms of the Egyptian language. The second line of objection draws upon modern findings which point to the Iraqi origins of farming and the complex of activities associated with keeping domesticated livestock. The question is how these skills came to be located in Upper Egypt without positing a movement of population from the Fertile Crescent. The resolution of these two lines of objection requires the use of data beyond the scope of the present study whose purpose was to be an archaeological review of the predynastic culture periods of Upper Egypt and their interrelationships to each other.

What subsistence/other activities did the Badarians engage in?

It can be demonstrated that the Badarians were sedentary agriculturalists who kept oxen, pigs, and cattle. Earlier sections have shown that the origins of these skills are still unknown. The Badarians were also highly skilled potters; their thin-walled ceramic forms are one of the defining traits of the period. There has been no evidence from other sites to indicate that the Badarians traded their pottery southward. Where Badarian sherds are found in southern sites, these are few in number of local imitations of Badarian originals. In addition, the sites where Badarian sherds were recovered are known to have been shrines and cult-centres. Thus the scarce Badarian specimens from these sites may be explained as the personal property of travellers or pilgrims.

The archaeological evidence that presently exists indicates that

the Badarian sphere of social activity was limited spatially to the region of the principal Badarian sites. The observation that the Badarians were not adept workers in stone has led to Caton-Thompson's hypothesis that their homeland must therefore be in a region where stone is scarce. The present study has been unable to discover evidence which would confirm or refute this hypothesis.

The Badarian remains reveal that the people who existed at the time were far from being technologically primitive, although they may have been primitive relative to neighbouring societies. The principal observed features of Badarian society are: sedentary village life, the growing of cereal crops for local consumption, the raising of domestic livestock, pottery, weaving and simple decorative arts.

What was the size of the Badarian population? What form did their social organization take?

It has been impossible to answer these questions because the archaeological data for settlement sites is not in existence. At Badari only cemeteries were excavated. Similarly, it has been impossible to make any sound inferences about the nature of Badarian social organization. The graves are quite homogenous. A few richer than average graves have been recorded but these may be due to the hazards of plundering and preservation. The distribution of copper implements appears to have been random in the Badari cemetery. The most that can be inferred from the research techniques in use up to now is that there was economic homogeneity and not the sort of stratified society that would manifest itself in separate

types of graves with richer furnishings within the class of burials for the period. Because the cemetery was in use for a period of time, a degree of developmental change is to be expected, however. Another alternative would be that only the rich were buried in cemeteries.

The Naqada I Period

How was Naqada I different from Badarian? The greatest differences between the Naqada I and Badarian assemblages are found in the artifact classes of ceramics and stone artifacts. The hallmark of the Naqada I horizon is a pottery type called White on Red which consists of white painted motifs on a red haematite slip. In Chapter II ("Designs on WonR Pottery") it has been shown that the painted designs passed through a number of distinct phases, the earliest of which could have originated locally in Upper Egypt. In subsequent argument it was held on the grounds of parallels of content and style between Naqada I and Naqada II motifs (Fig. 2.4) that Naqada I should be extended beyond the traditional S.D. 30-40 range to S.D. 45 or even to S.D. 50. At the other end of the Sequence Date scale, the date of the First Dynasty has been brought down from S.D. 80 to S.D. 65 (Kantor, 1965: 26-27).

A continuity of shared religious beliefs may certainly be inferred from the position of bodies and their orientation in burials. These shared traits are less between Badarian and Naqada I than between Naqada I and Naqada II when the parallels are very strong. At a general level it may be concluded that the people of the Badari district and the people of the Thebaid in the predynastic period shared a common cultural background

which unites them more closely to each other than to populations outside the Nile Valley. This hypothesis is supported by the artifact classes for each horizon. Recurring types are black-topped and polished red pottery, cosmetic palettes (per se), objects of carved bone and ivory and rare copper implements (pins, one celt and some harpoon-heads).

Differences between Naqada I and Badarian are evidenced by the appearance of White on Red pottery whose workmanship was of a quality that was plainly inferior to Badarian ware. The second major difference archaeologically is the appearance of fine stone vases made from the hard mantle rocks, granite and basalt, by artisans of the Naqada I (Amratian?) horizon.

Differences in skeletal indices were observed to occur between Badarian specimens and specimens from the major predynastic cemeteries to the south. The shared view of reporting physical anthropologists is that these differences are within the range of acceptable variation which may be expected to occur between adjacent populations. The development of new techniques in physical anthropology, particularly Multivariant Analysis, is indicating that previous studies are unreliable and the entire body of physical anthropological data must be restudied in the light of these new techniques.

On the basis of the archaeological record, it seems likely that the Badarian and Naqada I horizons were largely contemporary. Whereas the entire range of Badarian artifact types does not seriate into the Naqada I sequence as readily as do their respective pottery types, the horizons share artifact types (e.g., ground slate palettes) which occur

in virtual technological isolation, and which can best be accounted for by diffusion between contemporary cultures. It has been observed that across the entire predynastic period grinding is limited to the manufacture of slate palettes. In Naqada II the practice is extended to the manufacture of knife-blades and pesh-kef instruments. Whether or not all three horizons were contemporary to some degree is still tenuous. The strongest archaeological evidence supports the contemporaneity of Badarian and Naqada I.

Did separate Naqada I and Amratian foci exist?

The trend in modern archaeological writing is to replace the term "Amratian" with "Naqada I" to denote the white-painted pottery horizon which followed the Badarian. The present investigation has found, on closer examination at the site level, that El Amrah may have been a culture centre in its own right for part of the predynastic period. This may be a bias produced by the written sources. The present study proceeded upon this problem by asking whether traits could have originated at El Amrah and diffused southward, or whether El Amrah itself came under the influence of a centre to the south.

Independently of Kaiser's restudies of Naqada, evidence was found for the existence of regional stoneworking traditions at El Amrah and at Armant. These traditions may be continuous as far back as the Paleolithic. Naqada lies between these centres and appears to be of more recent date although Paleolithic finds have been made throughout the Thebaid. Again investigators are at a disadvantage because no absolute dates for the predynastic period exist that can be relied upon with certainty.

A fundamental conclusion of Kaiser's work is that the traits denoting Naqada I-Amratian are said to have originated in the Thebaïd. Kaiser's method is to propose a reorganization of the predynastic into four cultural phases (1956: 109): I-S.D. 30-38; II-S.D. 38-40/45; III-S.D. 40/45-63; IV-S.D. 63-80. Based upon the Naqada assemblage, Kaiser's "Naqada I" is truly what the name implies. The present study expresses doubt whether Kaiser's periods apply readily to sites other than Naqada and whether his divisions reflect significant social/archaeological changes (Figs. 219; 3.1; 3.3; 3.11). Kaiser's sources were the written reports and he has been forced to make many of the same assumptions about the Sequence-Date seriation that were made at the outset of this investigation. Given the present state of reported data, it can be said that his conclusions concerning the Naqada origins of the white-painted pottery horizon constitute an hypothesis and not a proof. Minimally the settlements associated with the predynastic cemeteries await (deep) excavation and there are certainly other undiscovered sites as well. Recent work in the Sudan has revolutionized our knowledge of the cultural development of that region (Wendorf, 1968; Butzer and Hansen, 1968). The application of similar research procedures should be capable of producing similar results in Upper Egypt.

The conclusions of the study of the El Amrah site in Chapter II are compatible with the eventual establishment of Kaiser's thesis. It is possible that a sophisticated stoneworking technology grew up at El Amrah and that at some later part of the predynastic period El Amrah came under the expanding influence of the Naqada civilization with which it interacted

on a commercial basis. There is no direct evidence that El Amrah was ever conquered by the Naqadans. El Amrah could have been assimilated for the skill of its craftsmen to produce luxury stone vases for the Naqadans whose economy may have been based upon gold. The more "primitive" Badarians to the north do not appear to have played a part in the growing volume of predynastic trade and commerce. No archaeological proof has so far been found which would indicate that grain or other fungible goods were being exported from the Thebaid at this time, although the idea is not an impossible one. Volume of grain production would be a function of the technology of the day and of the social organization which determines land tenure and the allocation of the labour force. To answer this question adequately would involve a separate study of the control and regulation of the means of production in antiquity. Concrete answers would have to be sought among the records of Egypt's trading partners if these partners were literate and if the records have survived.

The Naqada II Period

Is Naqada II the development of Naqada I or a separate product? In the Naqada II horizon, foreign artifacts and Egyptianized foreign traits are found. The archaeological goal of investigating Naqada II was to determine whether the artifact record is continuous with Naqada I or whether there are sudden changes that can only be explained as an influx of foreigners in the form of immigration or conquest.

The conclusions reached in Chapter III are that the record is continuous and that the observed foreign traits were restricted to

expensive luxury ceramics (Red on Buff pottery), to elaborately carved haftings for ripple-flaked knife blades, cylinder seals, and the pear-shaped (Sumerian?) mace-head. Less costly artifact types such as the everyday black-topped and red polished pottery continued to be made during the period despite the more expensive foreign types that had become popular. Inexpensive imitations of stone vase-forms were reproduced in clay. It is the class of burials that suggests that what we have in the Naqada II period is a culturally homogenous society rather than an indigenous population which was being ruled by foreign conquerers. Several economic grades of Naqada II burials may be traced to their origin in the common oval-shaped shallow grave which is the dominant grave type for the predynastic period as a whole. The evidence of craft specialization is an important feature of Naqada II. Craft specialization may be taken as a sign of an economically diversified society and the proliferation of crafts producing expensive items is evidence for an emerging stratified form of social organization. What unites the society of Naqada II is the fact that the position and orientation of bodies is the same regardless of whether the burial is in a round shallow grave (poorer classes) or in a rectangular brick-lined tomb (richer classes). In the Early Dynastic, full-length burials with the body laid on its back became the rule. This innovation can be accounted for as a change resulting from the evolution of the coffin container in which the body was placed.

The interpretation that should be given to Naqada II data is that it represents a continuous development from Naqada I to the Unification. The underlying homogeneity of artifact types argues for a continuous

development in situ. Superficially there is a veneer of non-Egyptian traits from the north, northeast and east. The most efficient analysis of the data was effected by looking for three varieties of artifacts: those of pure Naqada II origins and workmanship, those produced by Naqada II craftsmen in imitation of foreign originals or under the direction of foreign masters and, finally, artifacts actually made abroad and imported. It was remarked that the successful imitation and reproduction of foreign artifact types was a function of the level of technological development in Upper Egypt during the Naqada II culture period.

Investigation of the patterns of warfare in the regions from which imported artifact types came has ruled out the possibility of long-range voyages of conquest. The only other method of trait diffusion which would transmit the sorts of traits found in the Naqada II assemblages is trade. The arguments presented in this study lack the supporting data to prove conclusively that international trade was in fact carried on. As a result, argument has had to take the form of saying that trade was at least feasible as a means of culture contact given the technology and natural resources of Upper Egypt and given the size and seaworthiness of primitive ships.

FOOTNOTES

Chapter I

¹"Culture" is defined here in purely archaeological terms as an assemblage type which implies a degree of technological uniformity distributed spatially. The model to be used is the following: (see Clark, D.L. 1968, Analytical Archaeology, p. 188).

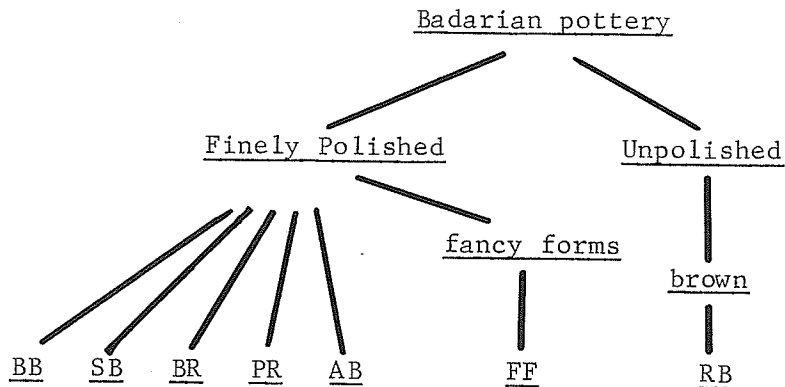
traits	(attributes)
type	(type)
(type) <u>assemblage</u>	(assemblage)
<u>(assemblage) type</u>	(culture)(culture type)
<u>(assemblage type) assemblage</u>	(culture type area)
<u>(assemblage type assemblage) type</u>	(culture area)

Terms denoting time and space that have been adopted here are the horizon to designate widespread distribution of traits or types in space but which need not have been of long duration in time; and tradition to designate time depth but not necessarily wide spatial distribution. Thus:

		Space	
		Localized	Widespread
Time	short period	(phase)	horizon
	long period	tradition	(culture)

Source: Willey & Phillips, 1958, Method and Theory in American Archaeology, Chicago, University of Chicago Press.

²Brunton's ceramic typology (1928):



³This feature is of importance in considering whether the White on Red bowls of the next culture period (Amratian) have their prototypes in the burnished-lined red bowls of the Badarian period.

⁴The holes shown on RB 43 represent a technique for repairing cracked vessels. Where a crack appeared, holes were bored on either side of it and wet leather thongs were laced through the holes. When the thongs dried, the leather contracted and the crack was held firmly shut.

⁵The people of the Faiyum Neolithic A also had subterranean granaries but these were made of basketry (Caton-Thompson, 1926, Pl. XXXIX, Figs. 1, 2; Pl. XL, Fig. 1). Basketry was known to the Badarians who were skillful in the manufacture of reed mats and wicker baskets, the latter being used to contain suspended containers.

⁶Breccia. "Sedimentary breccias resemble conglomerate except that most of their fragments are angular instead of rounded. They commonly grade into conglomerates. Since their constituent fragments have been little worn, however, it is apparent that the constituents of breccia underwent relatively less transportation and wear before they were deposited. There are many kinds of breccias other than sedimentary breccia..."

"Conglomerate is cemented gravel... Most conglomerates, especially those deposited by streams, have much sand and other fine material filling the spaces between the pebbles." (Gilluly, James, A.C. Waters and A.O. Woodford, 1968, Principles of Geology, 3rd edition, San Francisco: W.H. Freeman, p. 607).

⁷Names of pottery types used in this study are intended to give clearer pictures of the members. "Fancy Forms", "Decorated", and "White Cross-lined" are replaced by Black/Incised White, Red on Buff, White on Red, etc. (see Peet, 1933).

⁸Steatopygy denotes a phenotype having massive fatty deposits in the thighs and buttocks. Discussed infra (c.f. Kelso, 1970; Shattock, 1909).

⁹Petrie (1920: 7b) hypothesizes that the steatopygous phenotype represents a lower Paleolithic race which had been driven from Central Europe to Malta, from Malta to Egypt and from Egypt to South Africa where they are represented in the present day Korannas. It has also been suggested on the evidence of the obese Queen of Punt depicted on the wall of the temple of Deir el Bahari, that this race was in Punt during the XVIIIth Dynasty. There is no evidence for this latter idea in the archaeological record of Punt.

Chapter Two

¹An entire burial may be taken as a kind of "artifact" with such features as posture, orientation, preservation, grave goods, etc., as traits of that artifact.

²References for Sequence Dating: Petrie, 1899; 1901: 4-8; 1920: 3c-d. For a recent reappraisal see Kendall, 1963.

³White on Red (WonR) and Red on Buff (Rb) respectively replace the types formerly referred to as White Cross-Line and Decoration (see Chapter 1, n. 7). This change has been made to produce types whose name more accurately describes the artifacts of that class (Peet, 1933); nor is the present study the first to make use of revised type names (Scharff, 1928: 262). Researchers who are accustomed to the old names will not be troubled by the changed type names. These changes are primarily for the benefit of persons wishing to do comparative work between Egypt and other areas and represent an attempt to standardize the nomenclature of prehistoric ceramic types.

For example, the artifacts Rb 31-33 are called "Fancy Forms" by Brunton (1928). In the old terminology of the predynastic series, the same artifacts would be labelled "Decorated". By the use of the type Red on Buff, the two previous types are taken together and the investigator is spared unnecessary multiplication of effort.

⁴A blade is defined as a parallel-sided flake whose length is three or more times its width. (see n. 5 infra).

⁵"Knife blades" are not the same as "blade knives". A "blade knife" is a primary flake struck from a prepared core, whereas a "knife blade" may have been made from a large flake or from a piece of tabular flint. The technique of making knife blades which was started in Naqada I and perfected in Naqada II consisted of grinding the roughly shaped piece of flint until it was suitably thin. In Naqada I, the ground-prepared blade was flaked by percussion indirect flaking; in Naqada II pressure flaking was used. Knife blades of the latter sort may be 15 inches long, 2½ inches wide and ½ inch thick (infra, Fig. 3.9).

⁶Randall-MacIver dates the house model to about S.D. 44-64 which is outside the traditional 30-40 range which forms the conventional boundaries of the Naqada I (Amratian) period as defined by Petrie (Randall-MacIver and Mace, 1902, Pl. XI, 1, 2). In the present study, the argument will be made that the upper limit of Naqada I should be raised minimally to S.D. 45, and possibly higher.

Chapter Three

¹Figure 3.1 compiled from raw data provided in Randall-MacIver and Mace, 1902. Figure 3.2, same.

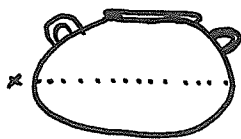
²Figure 3.3 compiled from raw data provided in Mond and Myers, 1937-1938, II: 64-67.

³"The gazelle, most often looking backward, is so common on the seals of Bahrain and Kuwait (while rare on those of Mesopotamia or the Indus) that it must have been regarded as in some way the crest or symbol of the land of Dilmun" (Bibby, 1969, frontis.) Dilmun is the place mentioned in Sumerian myths and legends and from which the Sumerians believed their civilization to have come. It has not been known whether Dilmun was real or mythical. Bibby believes that Dilmun is the present day island of Bahrain in the Persian Gulf. --C.V.

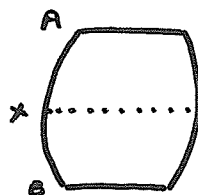
⁴Squat (globular) is defined as a round-bottomed form whose width was usually greater than its height.

Barrel shaped is defined as a form whose sides form regular arcs along which the widest point occurs approximately equidistant from the rim and the base.

Shouldered is defined as a form in which the widest point occurs above the point equidistant in the vertical plane from the rim and the base.

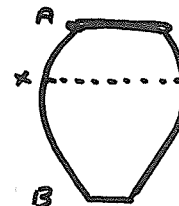


globular



barrel shaped

$$AX = XB$$



shouldered

$$AX > XB$$

x = widest point

- ⁵This last statement is admittedly very weak. It rests entirely upon the evidence of artifacts (Rb 31-33 (Fig. 1.4).
- ⁶For additional information concerning raw materials and percentages of stone vases made from each type of stone: Lucas, 1930. (see also Map of resources distribution, Chapter V).
- ⁷For the manufacturing of these burial pots: J. Garstang, 1902, in Man, March. See also Randall-MacIver and Mace, 1902, Pl. I, 4, bottom right of photograph, and Pl. II.
- ⁸Emery, 1955; 1961; 1970. See also Michalowski, 1969: 574, Chart IX.
- ⁹The exhaustive study of the development of Egyptian tomb types to the Old Kingdom is Reisner, 1935.
- ¹⁰Within the period of Naqada I whose craftsmen, it will be remembered, achieved proficiency in the working of hard stone. During Naqada I and II stone for vases was collected as loose boulders. Quarrying was not begun until the First Dynasty (Lucas, 1930). Knowledge gained from cutting the recessed grave shafts would have fathered the skulls which were soon applied in quarrying operations.
- ¹¹Ch. II, n. 5.
- ¹²The structures of the social organization of Upper Egypt in this period are unknown. It cannot reliably be said whether there were clans, ranked lineages, tribes, castes, etc.
- ¹³Three of the four great mace-heads depict Scorpion. Two are in the University College collection, London (U.C. 14898, U.C. 14898a); the third is in the Ashmolean Museum, Oxford (E 3632). The Narmer mace-head is in the Cairo Museum.
- ¹⁴It should be noted that the first pear maces appear at S.D. 42 and the lowest date for the First Dynasty to have appeared in the literature is S.D. 65 (Kantor, 1965, Figs. 2, 3). This range can be accounted for by the argument that possibly the first people to acquire pear maces were the Naqada II folk of the Thebaid who were later defeated by the Horus confederation from Hierakonpolis.
- ¹⁵Kantor puts the First Dynasty at S.D. 65 which would be well within the range of Rb pottery (n. 14).

Chapter Four

- ¹Prognathism as a Negroid feature: Randall-MacIver, 1900: 99; Junker, 1921: 22.
- ²"Prehistoric" in Randall-MacIver's usage, takes in not only the predynastic, but the Archaic as well.

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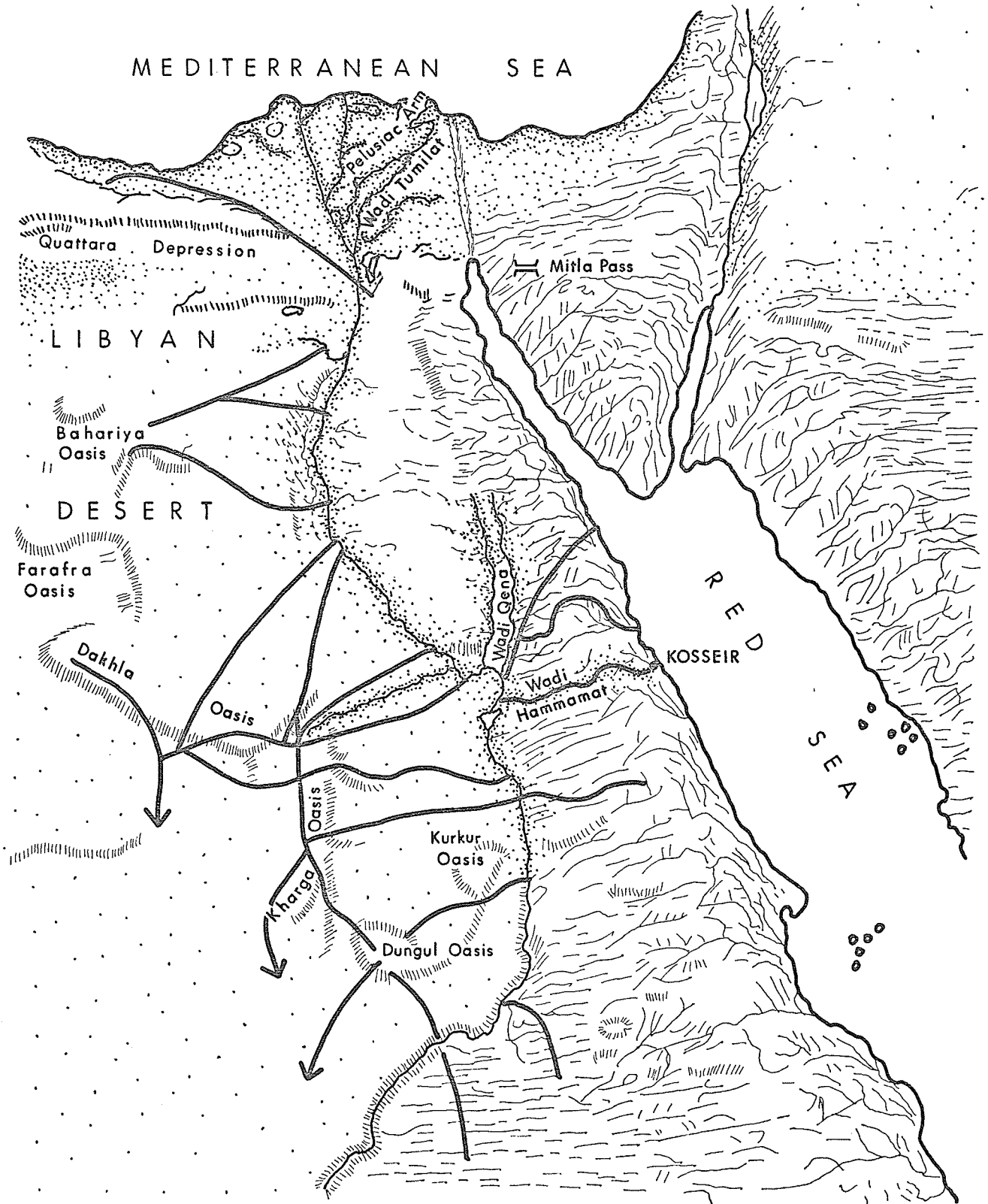
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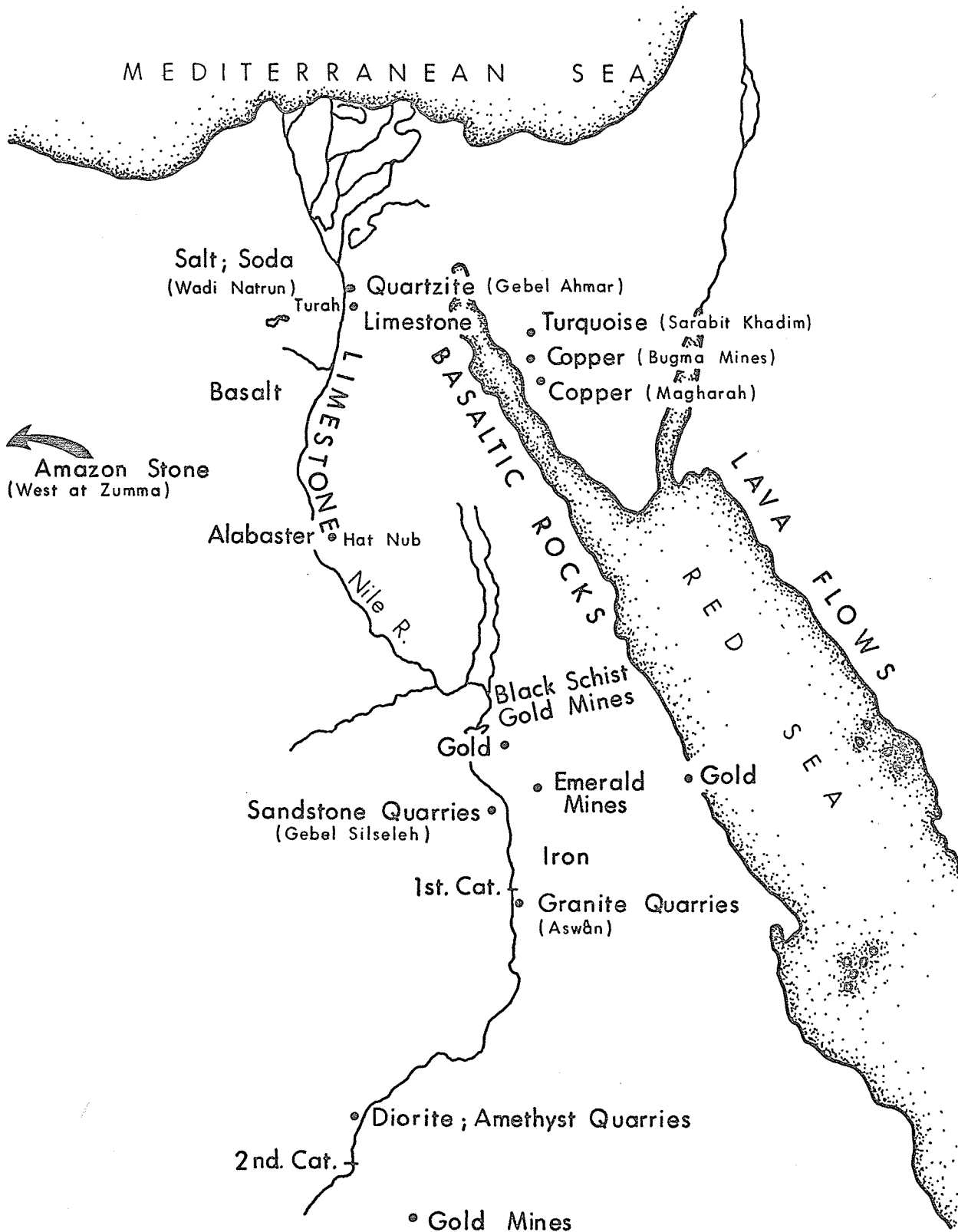
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EGYPT'S LANDFORMS AND WESTERN TRADE ROUTES



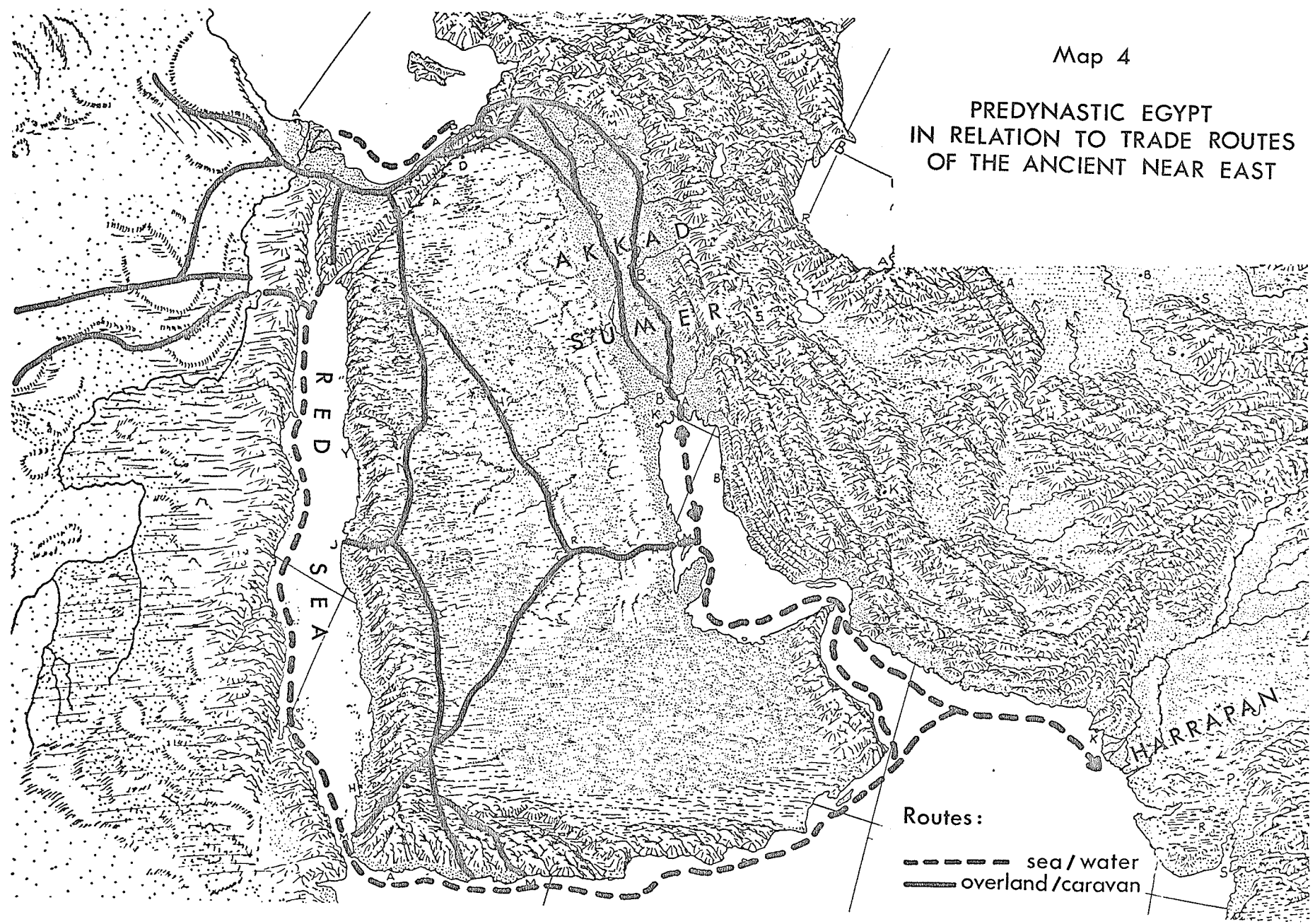
EGYPT'S RESOURCES



Map 4

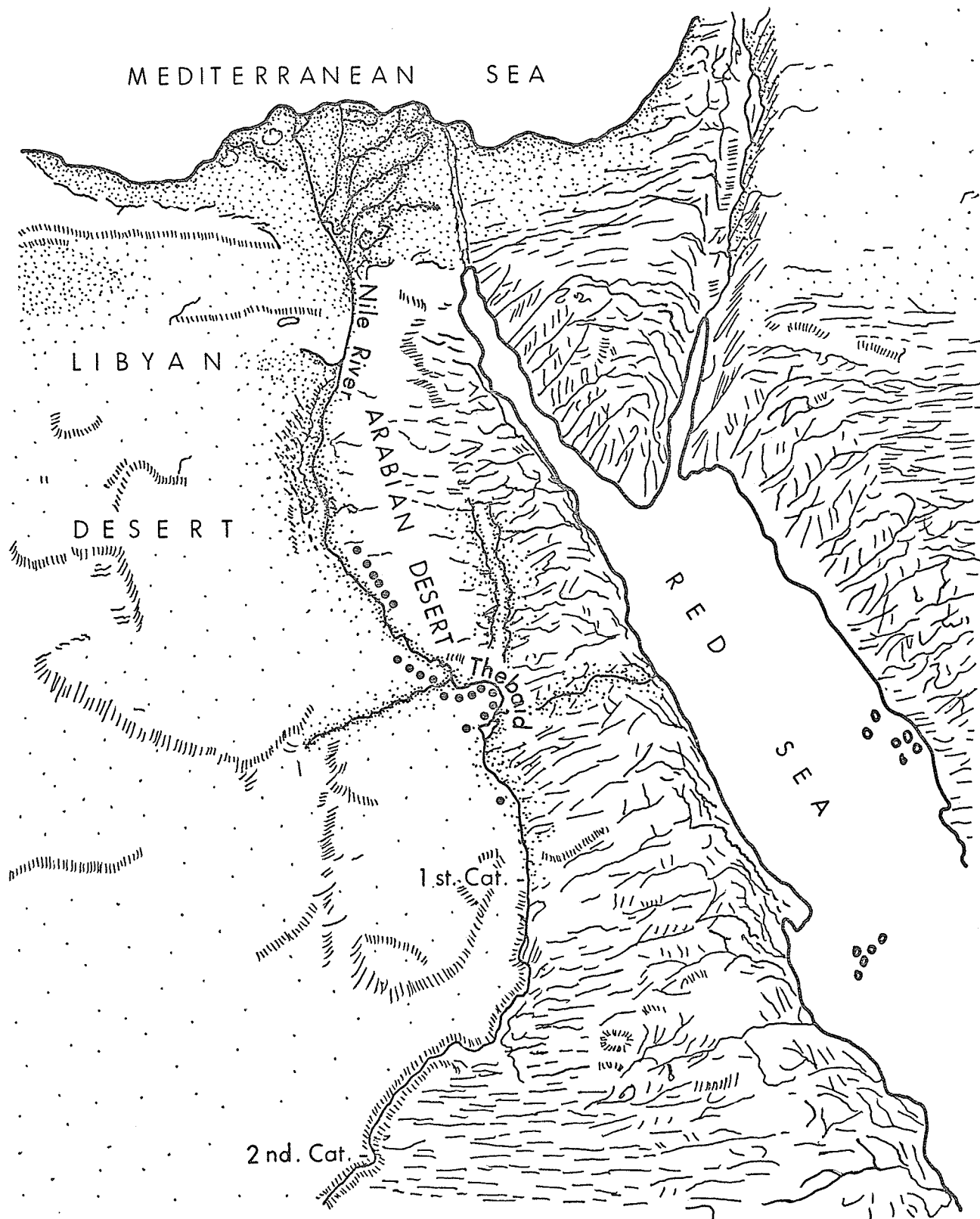
PREDYNASTIC EGYPT
IN RELATION TO TRADE ROUTES
OF THE ANCIENT NEAR EAST

170

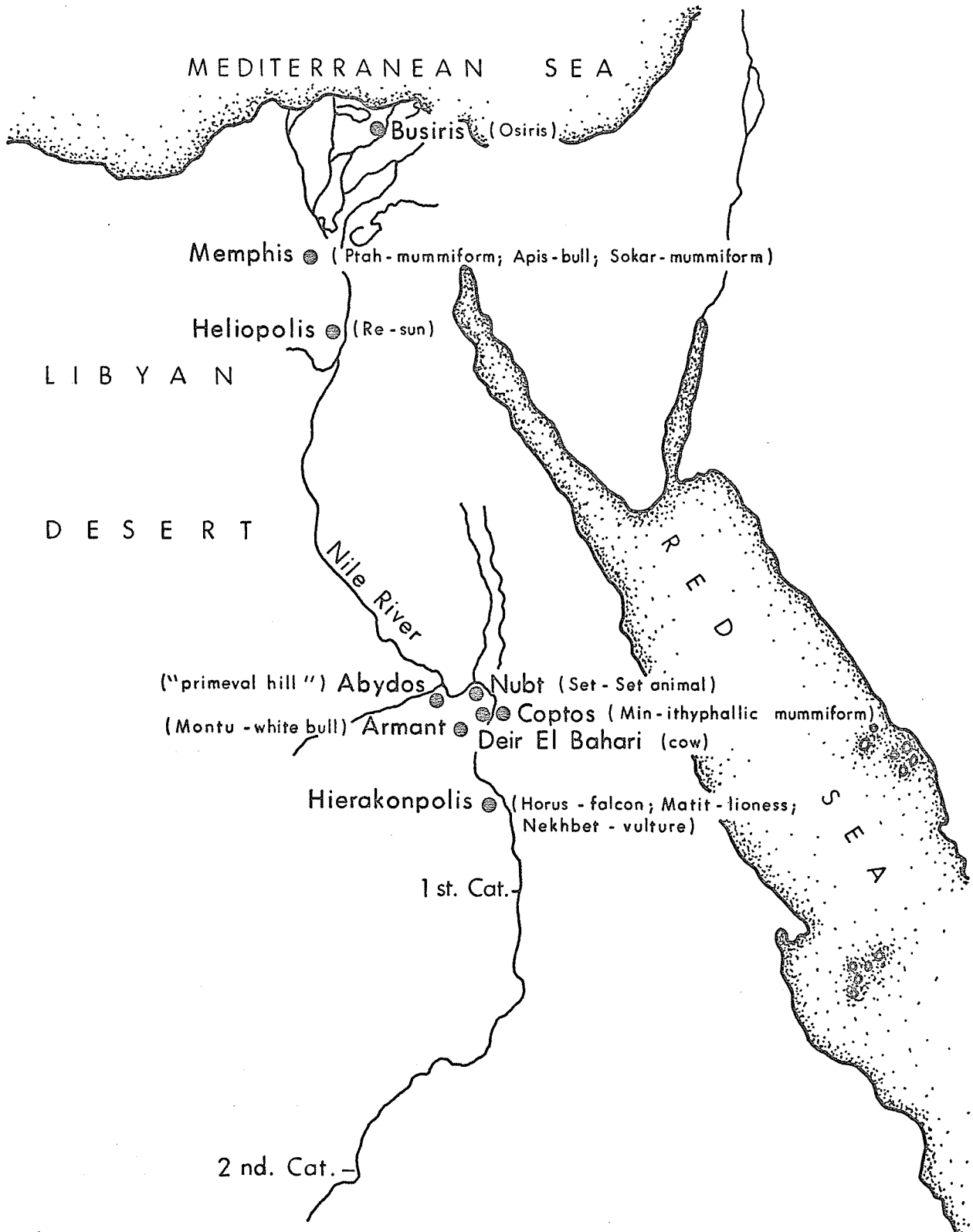


Routes:
- - - - - sea / water
————— overland / caravan

UPPER EGYPT
PREDYNASTIC SETTLEMENT DISTRIBUTION



Map 6
 LOCATION OF
 MAJOR PREDYNASTIC SHRINES



EARLY CAPITALS OF UPPER EGYPT

